



# **Session Software™ 2.0**

## **Demo Software Installation**

### **User's Guide**

**Digidesign Inc.**

1360 Willow Road #101  
Menlo Park, CA 94025  
415-688-0600

**Product Information:**

800-333-2137  
415-306-0974

**America On Line:**

Keyword: *Digidesign*

**Compuserve:**

*Go Digidesign*

**digidesign®**

# Table of Contents

## Installing Session™ Software and Getting Started

Introduction .....	9
System Requirements .....	11
Maximizing System Performance .....	11
Making Audio Connections to a Mixer .....	12
Installing Session Software .....	15
Installing the Demo Sessions .....	17
Starting Session Software for the First Time and Configuring Your System .....	18
Configuring Session for a Power Macintosh .....	19
Configuring Session for a Digidesign Audiomedia II card: .....	23
Making Sure Your System Is Working Properly .....	24
Troubleshooting .....	27

## The Session Interface

A Quick Visual Guide to the Session Software Interface .....	29
The Mix Window .....	29
The Edit Window .....	30
The Transport .....	31
The Movie Window .....	32
Mix Window Controls .....	33
Edit Window Controls .....	37

## Recording

Beginning a New Session .....	50
Working with Playlists .....	52
Adding a New Playlist .....	53
Unloading a Playlist .....	53

Loading a Different Playlist .....	54
Deleting a Playlist .....	54
Renaming Playlists .....	55
Initiating Recording .....	55
Recording In Stereo .....	59

## **Editing**

Understanding Audio Waveforms on Screen .....	60
Auditioning Tracks .....	68
About Session's Two Edit Selection Modes .....	71
Selecting Waveforms .....	72
Changing the Length of a Selection .....	73
Selecting Waveforms Across Multiple Tracks .....	75
Creating New Audio Regions .....	77
The Separate Region Command .....	78
Placing a Region in a Track .....	80
Selecting an Entire Region .....	81
Selecting Multiple Regions .....	83
Deleting Regions From a Playlist .....	84
Deleting Regions From the Audio Regions List .....	85
Moving Regions .....	88
Moving Regions in Front or Back of Other Regions .....	90
Resizing Regions .....	91
Using the Silence Region .....	93
Creating Crossfades Between Regions .....	97
Creating Fade Ins/Outs .....	105
Using Markers .....	108

## **Working with QuickTime Movies**

QuickTime Requirements .....	115
Importing QuickTime Movies .....	116

The Movie Window .....	118
Floating the Movie Window .....	120

## **Mixing**

Grouping Faders and Pans .....	121
Using Digital Equalization .....	123
Types of EQ .....	124
Recording and Editing Mix Automation .....	127
Creating Different Versions of Your Mix with Automation Playlists .....	129
Copying Automation from One Playlist to Another .....	130
Editing Automation .....	131

## **Session Menus**

The File Menu .....	136
New Session .....	136
Open Session .....	137
Close Window .....	138
Close Session .....	138
Save Session .....	138
Save Session As... .....	139
Save a Copy In... .....	139
Add Audio File .....	140
Import Audio File .....	140
Bounce Tracks .....	142
Delete Audio File(s) .....	144
Calc All Waveforms .....	144
Calc Selected Waveforms .....	144
Quit .....	144
The Edit Menu .....	145

Undo .....	145
Cut .....	146
Copy .....	146
Paste .....	146
Clear .....	146
Select .....	146
Left of Current .....	146
Right of Current .....	146
All .....	147
Trim .....	147
Trim Start to Cursor .....	147
Trim End to Cursor .....	147
Send to Back .....	147
Bring to Front .....	147
Make New Region(s) .....	147
Make New Silence Region(s) .....	148
Delete Region(s) .....	148
Separate Region .....	148
Duplicate .....	148
Fades .....	148
Identify Sync Point .....	149
Delete Sync Point .....	150
Identify Bar/Beat .....	150
Delete Bar/Beat Marker .....	151
Set User Sync .....	151
ReSync to User Time .....	151
ReSync to Record Time .....	151
The Options Menu .....	152
Pre/Post Roll Playback .....	152
Loop Selection .....	152
Insertion Chases Playback .....	153
Power Scroll .....	153

Page Scrolling .....	153
Moving Faders .....	153
Auto Name Markers .....	153
Smart Breakpoints .....	153
View At Waveform Scale .....	154
Auto Calculate Waveforms .....	154
Sample Rate Converter Quality .....	154
Online .....	155
Active in Background .....	155
 The Setup Menu .....	 155
Pre/Post-Roll Setup .....	155
OMS MIDI Setup .....	156
Launch OMS Studio Setup .....	156
MIDI Controller Mapping .....	156
Time Code Setup .....	157
Hardware Setup .....	158
Change Playback Hardware .....	158
Marker Auto Naming .....	159
The Display Menu .....	160
Micro Tracks .....	160
Small Tracks .....	160
Medium Tracks .....	160
Large Tracks .....	161
Waveforms .....	161
Gain Automation .....	161
Pan Automation .....	161
Markers .....	161
Size Read Out .....	161
SMPTE .....	162
Feet and Frames .....	162
Time Line .....	162
Bars and Beats .....	162

The Window Menu .....	162
Mix .....	163
Edit .....	163
Transport .....	163
Movie .....	163
The Grid Menu .....	164
Enable Grid Mode .....	164
SMPTE Grid .....	164
Feet & Frames Grid .....	165
Time Line Grid .....	165
Bars & Beats Grid .....	165
Grid to Edits .....	165
The Movie Menu .....	166
Import Movie .....	166
Import Current Movie Audio .....	167
Import Other Movie Audio .....	168
Mix Audio & Flatten Movie .....	169
Set Movie Offset .....	169
Half Size .....	170
Normal Size .....	170
Double Size .....	170
Center Movie Playback .....	170
Movie Window Floats .....	170





# Installing Session Software (Demo Version)

---

## Introduction

Welcome to Digidesign Session™ Software. Session Software gives you the power to produce, record, edit, mix, and master professional-quality digital recordings in a single easy-to-use software application.

The demo version of Session Software contained on this CD-ROM provides virtually all of the functionality of the full version of Session Software, with two important exceptions: you cannot save sessions, and the Session application will automatically quit after 15 minutes of use. If you like what you see, and wish to purchase the retail version of Session, please contact Digidesign at 800-333-2137 for the name of your local Digidesign dealer.

This brief User's Guide is designed to help you install the Demo Version of Session Software and teach you some of the essentials of creative audio production with Session. Using the included Adobe™ Acrobat™ Reader software you can read this User's Guide on screen, or print it out using a Macintosh-compatible printer.

### **Session Software provides:**

- 2-channel input and output
- 2 tracks of digital audio recording
- 4-16 tracks of digital audio playback. Track performance varies with computer speed,

hard drive speed, and amount of RAM. In general, you can expect the following performance from these systems:

- Macintosh with a Digidesign Audiomedia II™ card: 4 tracks of playback
- 60 MHz or faster Power Macintosh: 8 tracks of playback
- 80 MHz or faster Power Macintosh: 12 tracks of playback
- 100 MHz or faster Power Macintosh: 16 tracks of playback
- Nonlinear, random-access editing
- Mix automation with independent control of volume and pan
- Synchronized MIDI sequencer playback via OMS™ (*retail version only*)
- Support for a wide variety of audio file formats including Sound Designer II, AIFF, QuickTime, .WAV and SND.

Session Software is ideal for a variety of uses. If you are a musician, Session allows you to go from initial concept to completed project digitally, with exceptional control over every step of the creative process. You can record, arrange and edit your material quickly and easily, trying out any number of creative ideas, and finally, perform an automated mixdown to create a fully digital stereo master recording with EQ.

If you are creating audio for multimedia, Session is a powerful tool for soundtrack production. Session allows you to import QuickTime movies and synchronize or “spot” music, audio, dialog and effects. Completed soundtracks can be exported to a QuickTime movie, converted to 8-bit resolution at a variety of sample rates, and saved in a number of popular formats including QuickTime, .WAV, AIFF, SND and Sound Designer II. Thanks to Session, every step in the multitrack production of digital audio is now available in a uncompromisingly powerful software package that is affordable to everyone.

---

## System Requirements

- Power Macintosh, Quadra-series, or Mac IIci computer. Quadra-series or Macintosh IIci computers require Digidesign's Audiomedia II card.
- 13" or larger color monitor.
- 16 Mb RAM minimum. Additional RAM will increase performance.
- Apple System 7.1 or greater (7.1.2 is required for Power Macs).
- QuickTime™ 2.0 or greater.
- A hard drive with a sustained transfer rate of 2.5 megabytes per second or faster.
- Version 3.1 or greater of the Apple Sound Manager. (Included on your Installer disks.)

---

## Maximizing System Performance

Session Software is both powerful and *power-hungry*. To get the best performance out of your software and your Macintosh, there are several things you can do.

### **To maximize performance:**

- If you have a Power Macintosh, use the *Power PC Size* pop-up (part of the *Change Playback Hardware* dialog) to set the number of tracks in your session no larger than you absolutely need. The greater the number of tracks you choose, the greater the demand on your computer. You can always increase the number of tracks later in a session.

- Run as clean a System as possible, using a minimal number of System Extensions.
  - Turn off any System Extensions that are in constant operation such as menu bar clocks, screen savers, etc.
  - Turn off *File Sharing*.
  - Disconnect your Macintosh from any networks and turn off AppleTalk.
  - Allocate additional RAM to Session Software if necessary, using the Finder's *Get Info* command.
  - Optimize your hard drive.
  - If you're working with QuickTime movies in your session, view the movie at its smallest size.
- 

## Making Audio Connections to a Mixer

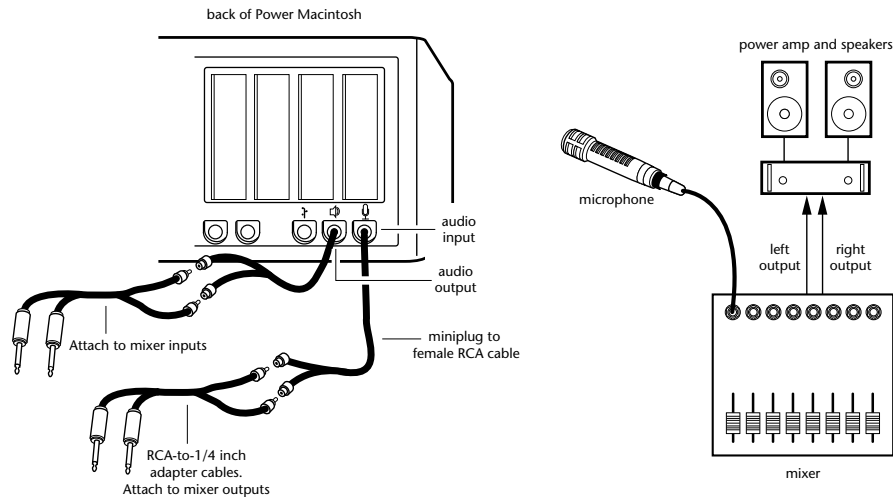
For optimum flexibility and fidelity we recommend that you use a good quality mixer with Session Software. Audio connections between a mixer and your Macintosh are simple to set up. They differ slightly depending on whether you are using an Audiomedia II card or the built-in sound input/output connectors on a Power Macintosh. Instructions are given for each case below.

### Using a Power Macintosh

If you own a Power Macintosh, you will use its built-in audio input and output connectors to bring audio into and out of your system. Make connections as follows:

## To make audio connections to a Power Mac's built-in audio connectors:

- Connect your Power Mac's audio output to your mixer's input. The Power Mac's audio output jack is a standard stereo mini-plug connector. Most mixer inputs require a 1/4 inch phone jack or an RCA jack. To make this connection, use a *mini-plug to 1/4 inch* or *mini-plug to RCA* adapter, depending on your mixer.
- Connect your mixer's output to the Power Mac's audio input connector. The Power Mac's audio input jack is a standard mini-plug connector. Most mixer outputs are 1/4 inch phone connectors or RCA connectors. To make this connection, use a *1/4 inch to mini-plug* or *RCA to mini-plug* adapter, depending on your mixer.



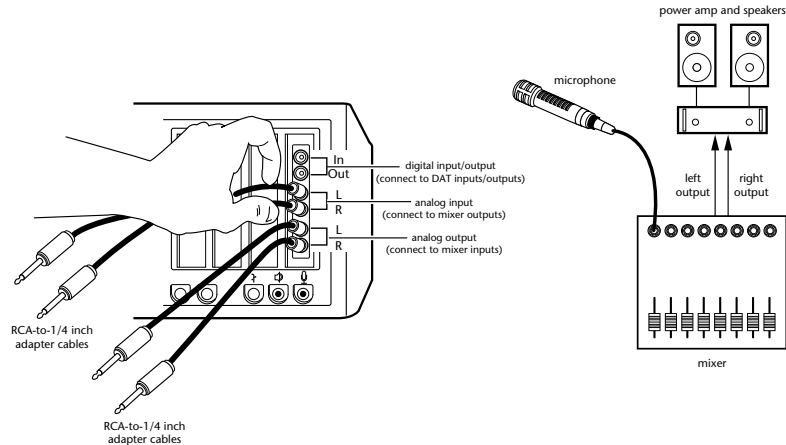
*Making audio input connections to a Power Macintosh*

### If You Are Using a Digidesign Audiomedia II Card

If you own a Digidesign Audiomedia II card, you can use its high-fidelity audio input and output connectors to bring audio into and out of your system. Make connections as follows:

#### To make audio connections to an Audiomedia II-equipped Macintosh:

- Connect your Audiomedia II card's analog audio outputs to your mixer's inputs. The Audiomedia II card's analog audio output jacks are standard RCA connectors. Most mixer inputs require a 1/4 inch phone jack or an RCA jack. To make this connection, use *RCA to 1/4 inch* adapters, or standard *RCA* cables depending on your mixer.
- Connect your mixer's outputs to the Audiomedia II card's analog audio input connectors. The Audiomedia II card's analog audio inputs are standard RCA connectors. Most mixer outputs are 1/4 inch phone jacks (or sometimes, RCA jacks). To make this connection, use *1/4 inch to RCA* adapters, or standard *RCA* cables depending on your mixer.



*Making audio connections to an Audiomedia II-equipped Macintosh*

---

## Installing Session Software

Session Software comes with an auto-installer, making installation fast and easy. Because Session is a “fat binary” application, it will work on either Power Macintosh or non-Power Mac models. In order to run properly, the Session application requires the following:

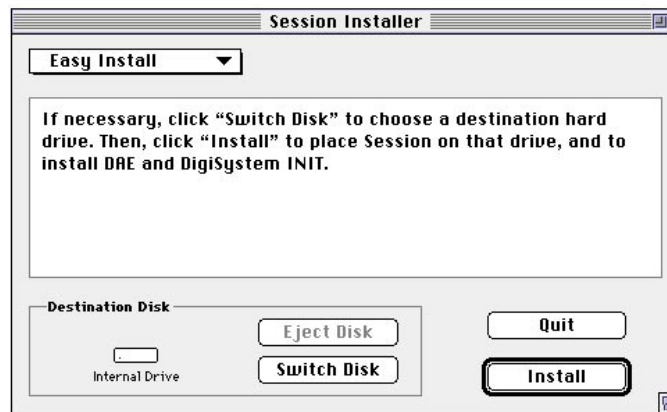
- Apple System 7.1 *or later* must be running on your Mac (System 7.1.2 is required for Power Macs.)
- *Virtual Memory* must be off. Open the *Control Panels* folder within your System folder, double-click the item called *Memory*, and click the *Off* button next to *Virtual Memory*. Session will not run unless Virtual memory is off. After you do this, restart your computer.
- If you have a Quadra-series Macintosh, *32-bit Addressing* must be turned on. Open the *Control Panels* folder within your System folder, double-click the item called *Memory*, and click the *On* button under *32-bit Addressing*. After you do this, restart your computer.

### If You Own a Quadra 900 or 950

If you wish to run Session on a Macintosh Quadra 900 or Quadra 950, you need to use Apple's *Serial Switch* software. The Serial Switch is a Control Panel device that goes in the *Control Panels* folder inside your System folder. It allows you to set these Macintosh models to run in “faster” mode or in “compatible” mode. Session requires that these models of Macintosh be set to *compatible* mode. The Serial Switch software is included on your Session diskettes. To install it, drag it from the CD-ROM to your closed System Folder. Then open the *Control Panels* folder (within the System folder) and double-click the item called *Serial Switch*. When it opens, set it to *compatible* and restart your Macintosh. Remember, use the Serial Switch software *only* if you have a Quadra 900 or Quadra 950.

## To Install Session Software:

- If you are using any virus-protection software, turn it off or temporarily remove it and restart your Macintosh.
- Insert the *Session Software Demo CD-ROM* in your CD-ROM drive and double-click the *Session Installer*. The Installer opens and this dialog appears:



*The Installer dialog*

- Select the drive on which you'd like to install the Session application. Select your *Startup* drive (the drive that has your System Folder on it).
- If you wish to install everything from your Session disks, choose *Easy Install* from the pop-up at the top of this dialog.
- Alternatively, if you wish to select individual items for installation, choose *Custom Install* from the pop-up, select the desired items, and click *Install*. (Digidesign recommends that you choose the *Easy Install* option and install everything. Don't choose *Custom Install*



unless you know exactly what you are doing—if you skip any essential items, your system may not function correctly.)

- After you have clicked *Install*, follow the on-screen instructions. The Installer will install Session Software in a folder named *Digidesign* on your hard disk.
- When the installation is complete, a message will appear indicating that the installation was successful. Click *OK* to restart your Macintosh. (After restarting, don't forget to turn back on any virus-protection software that you may be using.)

## Installing the Demo Sessions

The Session Software Demo CD-ROM includes several sample sessions that illustrate the many uses of Session software. These sessions range in size from 7 Megabytes to 110 megabytes in size. Slower Macintoshes/hard drives may not be able to play the Demo Sessions which feature more than 8 tracks.

### The included Sessions are:

- “*Demo Session 1*” 4 tracks, 7.5Mb. This a very short, simple music demo.
- “*Multimedia Demo*” 4 tracks, 36Mb, with a QuickTime™ movie. This session mixes music, narration, and a QuickTime movie to showcase Session's multimedia production capabilities.
- “*Lemonhead Promo*” 8 tracks, 25Mb. This is a radio commercial spot illustrating how Session can be used for radio/broadcast production.
- “*Don't Stop*” 12 tracks, 110Mb. This demonstrates Session used for commercial music demo production.
- “*Nike*” 15 tracks, 39 Mb, with a QuickTime™ movie. This session showcases Session's audio post production capabilities in the context of a major television commercial.

- If you wish, copy one or more of the Demo Sessions to your hard drive.

### **To Install a Demo Session:**

- Double click the Folder called *Demo Sessions*. Within this folder you will see several more folders, each of which contains a different demo.
- Locate the folder that contains the demo session you want and drag it to your hard drive.

Once you have copied the desired Demo Session(s) to your hard drive you will be able to open and play them with Session Software. Do not try to play a demo Session from the CD-ROM! CD-ROM drives are much too slow to do this. A session must be copied to your hard drive if you wish to play it.

---

## **Starting Session Software for the First Time and Configuring Your System**

The first time you open Session Software, the *Hardware Setup* dialog appears prompting you to configure your system according to your computer setup.

### **You have three options for configuring Session Software:**

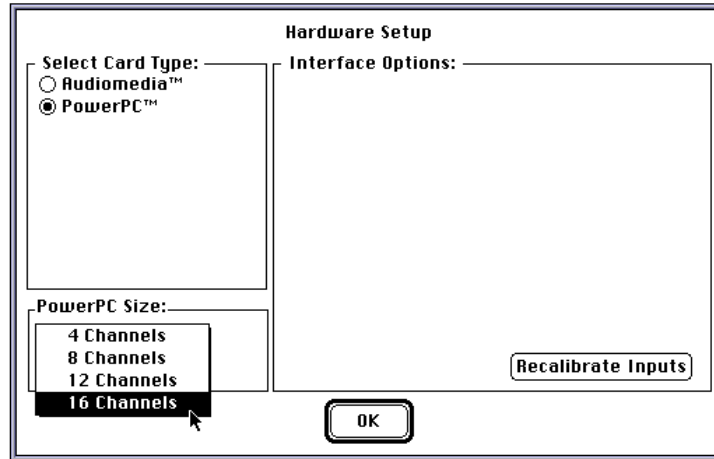
- **If you have a Power Mac:** You can run Session Software without any additional Digidesign hardware. Session Software will provide stereo recording and from 8-16 tracks of audio playback depending on your Power Mac's processor speed and the speed of your hard drive. This scenario provides the greatest number of tracks, but relies on the Power Mac's built-in 16-bit audio converters for input and output. These built-in converters provide lower fidelity than those found on Digidesign cards such as Audiomedia II.

- **If you have a non-Power Mac with a Digidesign Audiomedia II card:** You can run Session Software using the DSP power of the Audiomedia II card. Session Software will provide stereo recording and 4 tracks of audio playback. This scenario provides fewer tracks than a Power Mac, but offers greater fidelity input and output due to the superior quality of the 16-bit audio converters on Digidesign's DSP cards.
- **If you have a Power Mac AND a Digidesign Audiomedia II card:** Since Session Software allows you to switch between the Audiomedia card and the Power Mac using the *Change Playback Hardware* Command (Setups menu) this arrangement gives you the best of both worlds: the high-fidelity input/output of the Audiomedia II card *and* the Power Mac's 8-16 track capability. You can use Audiomedia II's high-fidelity input and output to record your tracks; switch to the Power Mac hardware to edit, mix, and bounce (with more tracks); and finally, switch back to Audiomedia II if you wish to record your master stereo mixdown on an external mastering recorder such as a DAT deck.

## Configuring Session for a Power Macintosh

### To start Session Software:

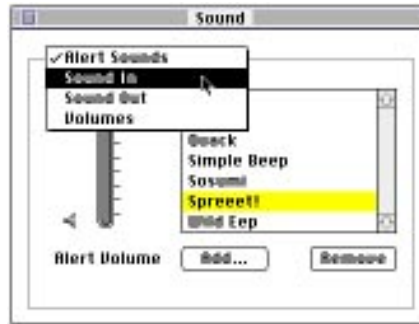
- Double-click on the installed Session application. The following dialog appears:



*The Hardware Setup dialog*

- If you have a Power Macintosh, click the *Power PC* button at the top of the *Hardware Setup* dialog.
- Next, click the *Power PC Size* pop-up at the bottom of this dialog to select the default number of tracks you wish to have in your session. (This will become the default setting for all subsequent sessions until you change it again here.) The greater the number of tracks you choose, the greater the demand on your computer's performance. To maximize performance, set your session no larger than you absolutely need. You can always increase the number of tracks later in the session with the *Power PC Size* pop-up.
- Click *OK* to close this dialog.
- To configure the Power Mac's built-in 16-bit input and output capabilities, go to the Finder and open the *Sound Control Panel*.

- When the Sound Manager appears, choose *Sound In* from the pop-up menu at the top of this window.



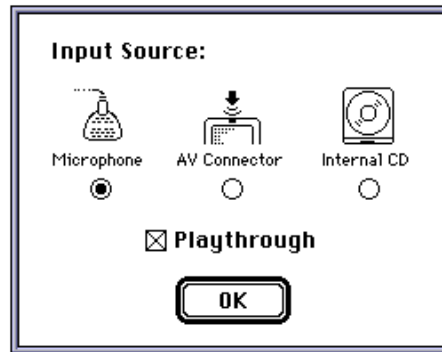
The "Sound" Control Panel lets you configure Sound Manager Input and Outputs

- In the *Sound In* window, click the *Options* button.



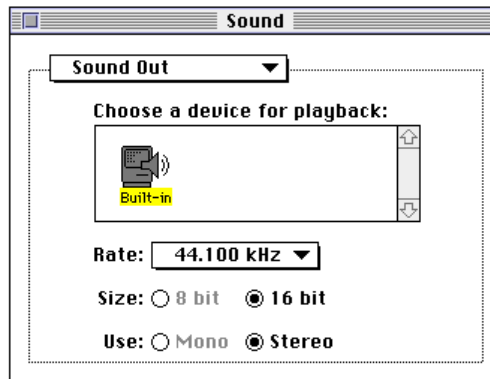
Click the Options button to choose a sound input source

- Select *Microphone* and then select *Playthrough*. This selects the sound input jack on the rear of the Power Mac. Click *OK* when you are finished.



*Choosing a sound input source*

- Next, choose *Sound Out* from the pop-up menu at the top of the Sound Manager window.

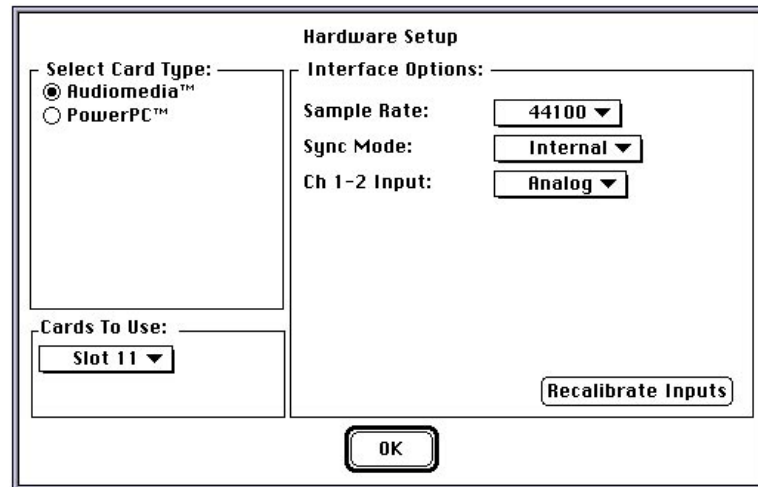


*Choosing sound output options*

- In the *Sound Out* window, select the sample rate that you desire (“*Rate*”). 44.1 kHz is the Compact Disc standard. (This doesn’t affect Session, just audio playback through the Sound Output jack on the Power Mac.)
- Select the bit resolution (“*Size*”). 16-bit is the Compact Disc standard. (This doesn’t affect Session, just audio playback through the Sound Output jack on the Power Mac.)
- Select mono or stereo format (“*Use*”). We recommend stereo.
- Close the Sound window when you have finished and go back to the Session application.

### Configuring Session for a Digidesign Audiomedia II card:

- If you have an Audiomedia card installed in your computer and wish to use its 16-bit input and output capabilities (instead of a Power Mac’s built-in capabilities), choose *Audiomedia* in the *Select Card Type* section of the *Hardware Setup* dialog.



*The Hardware Setup dialog  
(configured for an Audiomedia II card)*

- Next, choose an appropriate sample rate for your session. 44.1 kHz is the Compact Disc standard. This will become the default setting for all subsequent sessions until you change it again here.
- Under *Ch 1-2 Input*, choose the appropriate input format for your session. If you are recording from an *analog* source such as an analog mixer, choose analog. If you are recording from a *digital* source such as a DAT deck, choose digital.
- Click *OK* to close this dialog. You're now ready to use Session Software.

## IMPORTANT

*If you ever wish to switch your Hardware Setup from a Power Mac's built-in audio capabilities to an Audiomedia II card or vice-versa, use the Change Playback Hardware command in the Setups menu. This command will prompt you to save the current session before it allows you to change your Hardware Setup from a Power Mac's built-in audio capabilities to an Audiomedia II card or vice-versa.*

---

## Making Sure Your System Is Working Properly

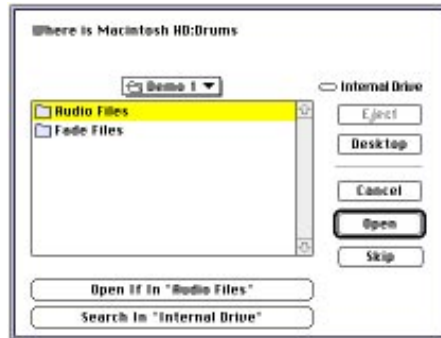
After you have installed Session Software, take a moment to make sure that your system is working properly. To do this, copy *Demo Session 1* from the CD-ROM drive to your hard drive. Make sure your system is connected to your mixer and that your amplifier and speakers are working so that you can hear Session's audio output and listen to the Demo Session.

### **To get ready to test your Session system:**

- Make sure any external SCSI hard drives that are connected to your computer are turned on and running. When you use your Session system, you should always turn on any external drives first, before you start your Macintosh.



- On the CD-ROM, double-click the Folder called *Demo Sessions*. When this folder opens, drag the folder named *Demo Session 1* to your hard drive.
- Open the *Demo Session 1* folder that you have copied to your hard drive and double-click on the file called *Music Demo Session*.
- Session will open and a dialog will appear, prompting you to locate the files needed for the Music Demo Session.
- Locate and open the *Music Demo Session* folder, then select the folder called *Audio Files*.
- Click on the button at the bottom of the dialog that says *Open if in "Audio Files."*



*The Where is? dialog*

- Session will find the files it needs and the Demo will open.



*The Demo Session*

### **To play the Demo Session:**

- Adjust the volume control on your power amp or mixer so that it is set relatively low. You can turn it up as the Music Demo begins to play.
- Press the Space bar on your Mac's keyboard. You should hear the Music Demo begin to play. If you wish to stop playback, press the Space bar again.
- To listen to the demo again, press the Space bar.

Welcome to Session Software!

If for some reason you weren't able to play and hear the Music Demo Session, you may have skipped a step in your installation. To find the problem, refer to the *Troubleshooting* section that follows.

---

## Troubleshooting

If you're having trouble getting your system to work properly, the following checklist may help.

### **If Session won't start:**

- Is Virtual Memory turned off? If not, open the Control Panels folder (in your System Folder), double-click the item called *Memory*, and turn off Virtual Memory. Then restart your computer.
- If you have a Quadra-series computer, is it running in 32-bit mode? If not, open the Control Panels folder (in your System Folder), double-click the item called *Memory*, and set it to 32-bit mode. Then restart your computer.
- Does your Macintosh have enough RAM (random-access memory)? Session requires that you have at least 16 megabytes of RAM in your Mac in order to run. To find out how much memory your computer has, choose *About this Macintosh* in the Finder's Apple menu. A window will appear telling you how much memory is currently installed in your Mac.
- Is DAE installed in the *DAE Folder* inside your System Folder (on your *Startup* drive)? If not, use your Session Installer disks to install it.
- Is the DigiSystem INIT installed in the Extensions folder (inside your System Folder)? If not, use your Installer disks to install it.
- Is the SessionMix INIT installed in the DAE Extensions folder (inside the DAE Folder)? If not, use your Installer disks to install it.
- Try a complete restart (turn off your computer peripherals and your Macintosh, and then turn them on again).

---

## About the Digidesign Audio Engine (DAE)

When you start Session you will notice that an application called *DAE* automatically launches in the background. DAE stands for the *Digidesign Audio Engine*. It is Digidesign's real time operating system for its digital recording systems. When you install Session, DAE is automatically installed inside your System folder in a folder called *DAE Folder*.

Even though you can switch to DAE in the Finder menu, there is no need for you to do this, and you shouldn't attempt to quit DAE when you are running Session. When you quit Session, DAE will automatically quit. You should never have to run or quit DAE by itself.

In the same way that the Macintosh System software provides the foundation for Macintosh software applications, DAE provides the core functionality of hard disk recording, digital signal processing, mix automation, and MIDI required by Session and other Digidesign products. Because DAE is an application itself, separate from Session, it supplies these same capabilities to products such as Studio Vision™, Logic Audio™, Digital Performer™, and Cubase Audio™ which utilize DAE resources to record and play digital audio.

---

This concludes your installation of Session Software. Your system is now ready to use. To learn some of the essentials of Session, navigate to the portions of this *User's Guide* that follow. There you'll learn some of the fundamentals of using Session.

---

## A Quick Visual Guide to the Session Software Interface

Take a moment to meet the Session Interface. It contains many buttons, sliders, and readouts that allow you to record, edit, and mix digital audio.

### Session has four windows:

- The **Mix** window, for setting levels and mixing
- The **Edit** window, for digital editing
- The **Transport**, for starting and stopping playback and recording
- The **Movie** window for importing and viewing QuickTime movies

Here's what each of these windows looks like:

### The Mix Window

To open the Mix window, select *Mix* from the Windows menu, or press Command-M on your computer keyboard. The Mix window contains the controls of a fully-digital mixing console. You will use this window to record tracks and adjust monitor and mixdown levels and equalization. Each of Session's tracks has its own controls for level, panning, record-enable, automation-enable, EQ, and solo/mute.



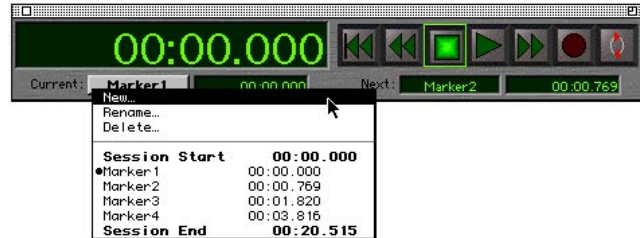
## The Edit Window

To open the Edit window, select *Edit* from the Windows menu, or press Command-E on the keyboard. The *Edit* window contains all of Session's digital editing functions. Here, you'll be able to arrange and rearrange your music in ways that would be virtually impossible with tape. The horizontal rows are tracks. The waveforms you see in the illustration represent audio on the tracks. You can view other tracks in your session by adjusting the track view and scrolling as necessary. With the editing tools in this window, tracks can be divided into pieces or *regions* and rearranged in a different order. The column at the right of the screen is called the *Audio Regions List*. It is a holding area for any regions that you create. From here, regions can be dragged into a track and arranged as you wish.





*The Transport with Markers displayed*

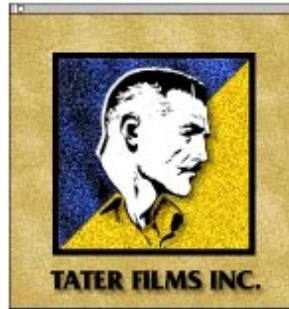


*The Markers pop-up menu*

## The Movie Window

Session allows you to import QuickTime movies into your Session to create or edit soundtracks for them. To display the Movie window (Command-Shift-M), you must first import a QuickTime movie into your Session with the *Import Movie* command in the Movie menu. You can display the Movie window at three possible sizes: half size, normal size, or double size. Working with larger movie windows uses more processing power, so to maximize Session performance, you may wish to display the Movie window at half size.





*The Movie Window*

---

## Mix Window Controls



### Audio Record-Enable Button

Clicking this button arms a track for audio recording. To begin recording audio, click the audio record-enable button, and then click the Transport's Record and then Play buttons (or press Command-Space bar). If you wish to see what your take looks like, choose the *Calculate All Waveforms* command from the File menu and look at your track in the Edit window.



### Audio Playlist Selector/Audio Input Selector

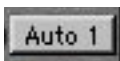
This button allows you to select a playlist or an audio input, depending on whether the track is record-enabled or not. If the track is record-enabled, this button turns into an input selector and allows you to route one of your system's inputs to the track. If the track is not record-enabled,

this button allows you to load different playlists onto the track. (The concept of playlists is covered in greater detail in later. For now you can simply think of them as alternative “takes” or tracks.)



### Automation Record-Enable Button

Clicking this button arms automation recording. To begin recording automation, click the Play button (you don’t need to click the Transport’s Record button) and move the gain and or pan fader on the track.



### Automation Playlist Selector

This button allows you to select an automation playlist and create, copy, rename or load different playlists onto the track. (The concept of playlists is covered in greater later.)



### EQ Enable LEDs and EQ Editor Buttons

Each Session track has two built-in digital equalizers (EQs). EQs allow you to enhance the sonic character of your mix by adjusting the frequency content of audio on a track. You can think of them as more sophisticated versions of the bass and treble controls on a stereo. To enable an EQ, click the green *EQ enable* LED. To select a specific type of EQ, click the white *EQ Editor* button and when the EQ editor window appears, adjust EQ parameters as you wish. To close the EQ window, click its close box. To disable an EQ, click the green *EQ enable* LED a second time. If a green EQ LED is lit, you know that an EQ is in use on the track.



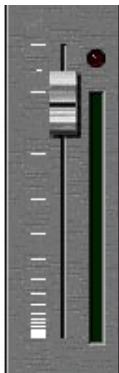
### Meter Data Selectors/Meter Data Indicator

Clicking on one of the three small LEDs (Fader, Pan, or VU Meter) allows you to choose which of these types of meter data you wish to view in the Data Indicator field below them. Clicking the **F** LED causes the Data Indicator to display information about the track's current gain fader setting (monitor level). Clicking the **P** LED switches the Data Indicator to show the track's pan position. Clicking the **Vu** LED switches the Data Indicator to show the track's VU level (the current peak volume of audio on the track). Option-clicking one of these LEDs sets ALL tracks in the Session to the selected readout (fader, pan, or VU meter value.) To reset the meter data display, click on it. Option-clicking on the display itself will reset readouts on ALL tracks. If audio on the track causes the VU meter to “peak,” or go to its maximum value of 0dB, the Data Indicator will stay at this value until you click on it to clear it. This way, you will always know if a track has peaked (and potentially has clipped or distorted).



### Panning Controller

This slider controls the location of a track in the stereo field. Moving the slider to the left moves the track's apparent location to the left. Moving it to the right moves its apparent location to the right. Holding down the Option key and clicking it sets it to its center position.



### Track Gain Fader and Track Meter

Dragging this fader controls the *volume* of a track when it is in playback mode, and the *monitor level* of the track when it is in record mode. A track's gain fader doesn't control the recording level of a signal—only the *monitor* level. If you need to increase or decrease the level of your instrument, use your instrument's or mixer's volume control.

Holding down the Option key and clicking this fader sets it to its default position of 0dB.

The red LED above the meter is a clip indicator. It will light up (and stay lit) if you clip during recording or playback. To clear the clip indicator, simply click on it.



### Solo/Mute Buttons

Clicking on the *Solo* button mutes other tracks so that the selected track can be auditioned alone. When a track is *Soloed*, the *Mute* buttons of other tracks in the session are highlighted. More than one track can be soloed at the same time. Clicking on the *Mute* button silences the selected track. More than one track can be muted at the same time.

---

## Edit Window Controls



### Zoom Presets

Clicking one of these four Zoom Preset buttons or typing one of the 1-4 numbered keys on the main section of the keyboard (as opposed to the key pad section) zooms in the track view by a user-defined amount.

#### To set a Zoom Preset:

- Use the Zoom Arrows or Zoomer tool (described shortly) to adjust your track view as you like.
- Hold down the Option key, and click the Zoom Preset button that you wish to assign the View to.

OR:

- Hold down the Option key, and type the number key (1-4) to correspond to the Zoom Preset button that you wish to assign the track view to. (Type the number in the main section of the keyboard as opposed to the key pad section.)

The track view is now stored as a Zoom Preset. Clicking the Zoom Preset button later will zoom in the track view with the setting you just defined. Zoom Preset buttons can be reset simply by assigning new track views to them. Zoom Presets are saved with individual sessions, so each session can have its own presets to suit its particular editing needs.



## The Zoom Arrows

The Zoom Arrows can be used to scale the waveform display in or out. Clicking these buttons changes the magnification level by a fixed amount each time, and holding them down allows you to zoom in incrementally. The Zoom Arrows also allow independent adjustment of horizontal (amplitude) and vertical (time) scaling of the viewing area. The Zoom Arrows enlarge and contract the display, keeping the center point of the display fixed as the scale changes.

Clicking on a Zoom Arrow adjusts the track view in the following ways:

- The **up arrow** expands the amplitude scale, making the waveform appear taller. This is useful for viewing low-level audio waveforms. Zooming in to exceptionally high magnitude will cause the waveforms of louder sounds to extend well above and below the viewing area.
- The **down arrow** performs the opposite function, reducing the height of the waveform. Use it to scale down your view to see the entire amplitude range of a waveform.
- The **right arrow** expands the time scale to show greater detail in the waveform display, making it possible to magnify this view all the way up to single-sample resolution, if you wish. However, this reduces the visibility of the total session duration.
- The **left arrow** compresses the time scale, allowing you to see more of the session duration, but in less detail.

Holding down the Option key while using a Zoom arrow zooms slower. Holding down the Command key while using a Zoom arrow zooms faster.

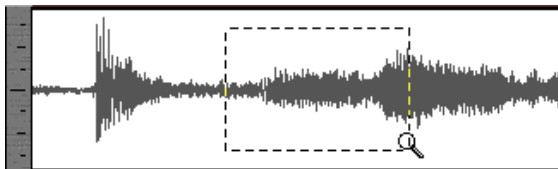


## The Zoomer

Clicking here or typing the letter z on the keyboard activates the Zoomer. The cursor turns into a miniature magnifying glass. To use the Zoomer, click and drag this magnifying glass over a portion of a track that you wish to view. As you drag, a dashed box appears indicating the range that you will be zooming in on. When you release the mouse, the display zooms in on that portion.

### To Zoom in on a specific part of a waveform:

- Select the Zoomer button or type the letter z on the keyboard. The cursor will change to a magnifying glass.
- Position the magnifying glass at one end of the area you wish to view in detail. Click and hold the mouse button, and drag to the other end of the area of interest. A dashed box extends over the area.



*Drag the Zoomer to zoom in on a specific area that you want to edit more precisely*

- Release the mouse button. Session will zoom in on the selected area.

Using the Zoomer with the following commands influences the nature of the zoom:

- Double-clicking the Zoomer zooms out to display the entire length of the entire session.
- Holding down the Shift key while using the Zoomer zooms in horizontal direction only.
- Holding down the Option key while using the Zoomer zooms from the center out from wherever you click.
- Holding down the Shift and Option keys while using the Zoomer zooms from the center out while constraining to horizontal scale.

If the Numeric Editing Mode button (covered shortly) is set to *Move* mode, you can type in a number in the *Start* or *End* numeric entry fields to adjust the placement of the track view for the session. If the Numeric Editing Mode button is set to *Trim* you can adjust *only* the start or end time of the track view based on the values that you enter in the *Start* or *End* numeric editing fields. (Pressing the **asterisk** key (\*) on the key pad section of the keyboard will toggle between *Move* mode and *Trim* mode.)

In either Numeric Editing Mode, you can extend the end of the track view and leave the start of the track view the same by entering the desired selection length in the *Duration* numeric entry field. If you precede the number you are typing in any of these numeric fields with a plus or minus, it will add or subtract from the selection. For example, if you type +250 (Enter) it will add 250 to the value in the selected field.

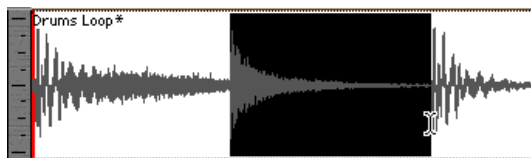
*NOTE: Pressing the Enter key will drop a location Marker if you are NOT editing a numeric field. So make sure you are in numeric editing mode before pressing the Enter key. (The subject of Markers is covered later.)*





## The Selector

Clicking here or typing the letter **x** on the keyboard activates the Selector. The cursor changes to an I-beam. Clicking and dragging the I-beam cursor in a track will select that portion of audio for editing. Double-clicking in a region with the Selector selects the entire waveform within the region's boundaries. Once you have made a selection, you can create a region, or modify it with any of several other editing operations.



*Selecting a waveform with the Selector*

If the Numeric Editing Mode button (covered shortly) is set to *Move* mode, you can make a selection and type a number in the *Start* or *End* numeric entry fields to adjust the placement of the selection in the session without changing its duration. If the Numeric Editing Mode button is set to *Trim*, you can adjust *only* the start or end times of the selection based on the values that you enter in the *Start* or *End* numeric editing fields, and the duration of the selection will change accordingly. (Pressing the **asterisk** key (\*) on the key pad section of the keyboard will toggle between *Move* mode and *Trim* mode.)

In either Numeric Editing Mode, you can extend the end of the selection and leave the start of the selection the same by entering the desired selection length in the *Duration* numeric entry field. If you precede the number you are typing in any of these numeric fields with a plus or minus, it will add or subtract from the selection. For example, if you type +250 (Enter) it will add 250 to the value in the selected field.

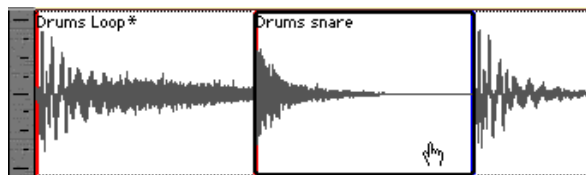
*NOTE: Pressing the Enter key will drop a location Marker if you are NOT editing a numeric field. So make sure you are in numeric editing mode before pressing the Enter key. (The subject of Markers is covered later.)*

**Command-Shift-[** will select *all* the waveform data from the beginning of the region to the current selector position, and **Command-Shift-]** will select *all* the waveform data from the end of the region to the current selector position.



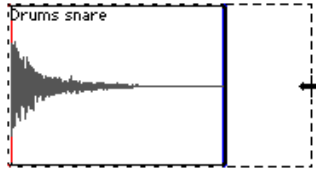
### The Grabber

Clicking here or typing the letter **c** on the keyboard activates the Grabber. With this tool regions can be moved or rearranged simply by dragging them to a new location in a track. You can use this to “spot” regions quite effectively against time scale formats—especially handy if you are using SMPTE as your time format in the session.



*Clicking a region with the Grabber selects the entire region*

To trim the length of a region, place the Grabber over either the beginning point (colored red on the screen) or end point (colored blue) of the region. The Grabber turns into a left/right arrow that lets you trim the beginning or end of the region. If you Shift-click to select multiple regions, it will trim all selected regions in relative proportions.



*Dragging a region end point with the Grabber turns into a left/right arrow to resize the region*

If the Numeric Editing Mode button (covered in the next section) is set to *Move* mode, you can select a region and type in a number in the *Start* or *End* numeric entry fields to adjust the placement of the selected region in the session without changing its duration. If the Numeric Editing Mode button is set to *Trim* mode, you can adjust *only* the start and end times of the region based on the values that you enter in the *Start* or *End* numeric editing fields, and the duration of the selection will change accordingly. (Pressing the **asterisk** key (\*) on the key pad section of the keyboard will toggle between *Move* mode and *Trim* mode.)

In either Numeric Editing Mode, you can extend the end of the region and leave the start of the region the same by entering the desired region length in the *Duration* numeric entry field. Selected regions can be moved by entering a location for the region's Sync point in the *Sync* numeric field. If you precede the number you are typing in any of these numeric fields with a plus or minus, it will add or subtract from the selection. For example, if you type +250 (Enter) it will add 250 to the value in the selected field.

*NOTE: In Trim mode typing a value or subtracting to a value in the End field that is earlier than the Start field will delete the selected region from the track. Similarly, in Trim mode subtracting a value in the Duration field that is less than the current duration of the selection region will delete that region from the track.*

*NOTE: Pressing the Enter key will drop a location Marker if you are NOT editing a numeric field. So make sure you are in numeric editing mode before pressing the Enter key.*

**Command-[** will Trim the waveform data from the beginning of the region to the current selector position, and **Command-]** will Trim the waveform data from the end of the region to the current selector position.



Move Mode

OR



Trim Mode

### The Numeric Editing Mode Button

Clicking on this button or pressing the **asterisk** key (\*) on the key pad section of the keyboard (as opposed to the main keyboard section) toggles Session between *Move* mode and *Trim* mode. With *Move* mode enabled, a selected region or edit range can be moved to a desired location in a track by typing a value in the numeric entry fields at the top of the Edit window. With *Trim* mode enabled, a selected region or edit range can be trimmed to a desired length by typing in a value in the same numeric entry fields.



### The Numeric Editing Fields

These fields function as both data displays and editing controls for a currently selected region or edit range.

The *Start* field indicates the start point of the current selection. The *End* field indicates the end point of the current selection. The *Sync* field indicates the Sync point of the selected region (or the beginning point of the selected region, if there is no Sync point). The *Duration* field indicates the duration of the current selection. Information in the fields can be displayed in *Bars & Beats*, *Minutes:Seconds*, *SMPTE*, or *Feet and Frames* depending on which Time Scale format is selected in the Display menu.

The **Slash** key (/) on your Macintosh keyboard takes you into and toggles through numeric entry fields, and the **Escape** key (ESC) exits out of numeric entry fields. A red outline around a field indicates the current active field for numeric entry editing. Typing new values into any of these fields and then pressing the Enter key will allow you to enter a new time location for the selected parameter. Depending on whether the Numeric Editing Mode button (to the left of these fields) is set to *Move* or *Trim*, entering a value in any fields allow you to either Move or Trim the selected parameter to the time location that you enter. If you precede the number you are typing with a plus or minus, it will add or subtract from the selection.



### The Cursor Position Indicator

The Cursor Position Indicator shows the current position of the Cursor in the Edit window. The display options are *Bars & Beats*, *Minutes:Seconds*, *Time Code* (SMPTE frames) or *Feet and Frames* as chosen in the Display menu. If you wish to display data in *Bars & Beats* you can use the *Identify Beat* command in the Edit menu to provide Session with custom Bar/Beat information.



### The Grid On/Off Indicator

The Grid On/Off Indicator shows whether the Grid is currently enabled or disabled. Clicking the Grid On/Off Indicator turns the Grid on or off. Holding down the Shift key after starting to drag a region momentarily turns on the Grid and also constrains the region's horizontal movement when dragged vertically to other tracks.



### The Grid Value Indicator

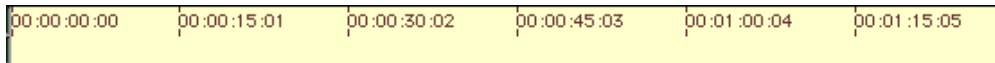
The Grid Value Indicator shows the value of the current Grid Mode. **Command-up arrow** increases the value in the Grid Value Indicator, and **Command-down arrow** decreases that

value. **Command-left arrow** nudges a selected region to the left by the selected Grid value and relative to the region's current position, and **Command-right arrow** nudges the selected region or regions to the right by the selected Grid value and relative to the region's current position.



### The Size Read Out Indicator

The Size Read Out Indicator shows the amount of record time, the amount of record space still available on the hard disk, the size of the session in track minutes, or the size of the session in hard disk space. The desired format can be chosen with the *Size Read Out* command in the Display menu.



### The Time Line

Just above the top most track in the Edit window is the Time Line. The Time Line indicates the time scale currently in use. Session allows you to display time in several different formats, including *SMPTE Time Code*, *Bars & Beats*, *Feet:Frames* (for film applications), or *Minutes:Seconds*. To change to a different time format, simply choose the desired time format from the Display menu.



### The Solo/Mute Buttons

Clicking on the *Solo* button mutes other tracks so that the selected track can be auditioned alone. When a track is *Soloed*, the *Mute* buttons of other tracks in the session are highlighted. More than one track can be soloed at the same time. Clicking on the *Mute* button silences the selected track. More than one track can be muted at the same time.



### The Fader/Pan/Vu Meter Indicator

Clicking on one of these three LEDs (Fader, Pan, or Vu Meter) allows you to choose which of these three parameters you wish to view in the Indicator field in both Edit and Mix windows. Option-clicking one of these LEDs sets *all* tracks in both Edit and Mix windows to the selected readout (fader, pan, or Vu meter).

Clicking on the Indicator field below the LEDs will reset the readout on one track in both Edit and Mix windows. Option-clicking on the Indicator field will reset the same readout on *all* tracks in both Edit and Mix windows. Option-Command-clicking on the Indicator field will reset the readout on one track *only* in the current window.



### The Level Meter

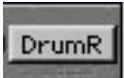
These meters are LED-style meters that show you the level of the signal that is being recorded to or played back from the hard drive. When a track is record-enabled, these meters are very important as they are Session's record-level indicators. Remember that the Session system retains a clean, quiet signal path by offering no pre-amplification of the input signal. If your input signal is too low, you must increase it *before* it reaches the Session hardware (i.e. Audio Card or PowerPC).

Digital recording produces the best results when the recorded signal is as high as possible without clipping. In Record mode, these LEDs show you the pre-fader audio level of a track as it records to hard disk. This means that the meter of a track with audio on it will light up during record regardless of the setting of the track's volume fader.



### The Audio Record-Enable Button

Clicking this button arms a track for audio recording. To begin recording audio, click the Audio Record-Enable button(s) for the track(s) you wish to record, click the Transport's Record button and then the Play button. If you wish to see what your take looks like, choose the *Calculate All Waveforms* command from the File menu and look at your track in the Edit window.



### The Audio Playlist Selector

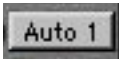
This button allows you to select a playlist or an audio input, depending on whether the track is in record or playback. If the track is record-enabled, this button turns into an input selector and allows you to route one of your system's inputs to the track. If the track is not record-enabled, this button allows you to load different playlists onto the track. (The concept of playlists is covered in greater detail later. For now you can simply think of them as alternative "takes" or tracks.)



### The Automation Record-Enable Button

Clicking this button arms Automation recording. To begin recording automation, click the Automation Record-Enable button(s) for the track(s) you wish to record, click the Play button (you *don't* need to click the Transport's Record button) and move the gain and/or pan fader on the track in the Mix window.





## The Automation Playlist Selector

This button allows you to select an automation playlist to load different playlists onto the track.



## The Regions List

This is where regions appear after you create them with the *Make New Region(s)* command or add them into a session from your hard disk. From here they can be dragged onto tracks and arranged in whatever order you choose. Region names reflect both the name that you have given them and the name of the sound file from which they came. At the top of the Audio Regions List is a special region called *Silence*, which is just that—silence. This region can be placed in a track, moved, and re-sized like other regions. You'll learn more about how to use the Silence region later.



## The Regions List Window Sizer

If you wish to resize the window for the Regions List, click and drag the Regions List Window

Sizer (the left-right arrow box in the top or bottom of the Scroll Bar just to the left of the Regions List). Enlarging the Regions List window allows you to read the longer region names. Reducing the Regions List window allows you to see more of the waveform display.

---

## Recording

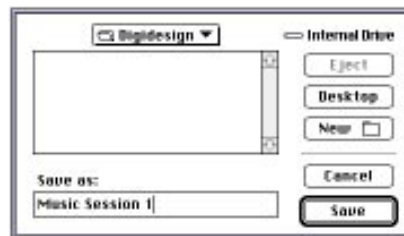
---

### Beginning a New Session

The first step in beginning a new project is creating a new Session.

**To create a new Session:**

- Choose *New Session* from the File menu. A dialog appears asking you to name the Session.



*The New Session dialog*

- Use the pop-up menu at the top of this dialog to navigate to the drive on which you wish to record. If you have an external drive connected to your computer for recording audio, navigate to this drive.
- Next, enter a name for the Session and click *OK*. The Transport appears, followed by the Edit window.
- To display the Mix window, choose *Mix* from the Display menu, or type Command-M.
- Click the playlist pop-up menu on the track that you wish to record on and select *New*. In the dialog that appears, name your track/playlist. This name will also be given to any audio files that you record on the track. Click *OK* to close this dialog.
- Your track/playlist is now named as you wish and you are ready to start your new project.

Before you jump straight into recording, skim through the next section of your User's Guide first. It contains useful information about playlists, an essential part of Session Software's recording capabilities.



*Creating a new playlist in order to name a track*



*The Name playlist dialog*

---

## Working with Playlists

As you learned earlier, Session allows you to create and load or unload alternative takes on each of its tracks through the use of playlists. Playlists are extremely valuable in a recording situation because they give you the opportunity to try out alternative takes on a track, and then later, choose the one you want to use.

Playlists are accessed by clicking on a track's *Playlist/Input Selector* pop-up menu.



*The playlist pop-up menu*

When you create a new playlist on a track you can give it a meaningful name such as *Vocal 1*, *Guitar Solo 3*, or whatever you like. You will use this pop-up menu to create, load, and unload playlists on tracks.

### **Adding a New Playlist**

If you want to create a new, empty playlist to try an alternate take, you can use the *New* command in the playlist pop-up menu. When you choose this command, Session will create a new empty playlist in the current track. If there is already a playlist assigned to this track, it will be unloaded.

#### **To add a new playlist:**

- Click the playlist button on the desired track.
- Choose the *New* command. A dialog box will appear, allowing you to name the new playlist.
- Click *OK* if you want to use the default playlist name or type in one of your own.
- An empty playlist with the name you assigned will be placed in the current track.

### **Unloading a Playlist**

By default, all tracks contain playlists. However, if you wish, you can unload a playlist from a track, leaving the track empty. This doesn't delete the playlist—it just isn't loaded onto that track any more. This is a useful way to temporarily open up additional tracks while working on a complex song. You could for example unload all tracks but one (to use as your guide track) then load new playlists and record on the other tracks to beef up a specific part such as vocal harmonies, creating a virtual “wall of sound,” and then bouncing the tracks down to one or two tracks later.

#### **To unload a playlist:**

- Click the playlist button of the desired track. This playlist pop-up menu appears.

- Choose *None*.

The playlist will be unloaded from this track. You cannot record on a track that doesn't contain a playlist.

### **Loading a Different Playlist**

With the same pop-up menu, it's possible to load a different playlist on a track. When you do this, the playlist which is currently active on the selected track will be temporarily replaced by the new playlist.

#### **To load a playlist:**

- Click the playlist pop-up menu of the desired track. The playlist menu appears.
- Choose the playlist you want to load. Playlists that are already loaded onto other tracks cannot be selected. The playlist you choose will be loaded onto the selected track.

When a playlist is unloaded, it still exists in the session and can be reloaded at any time. If you really want to get rid of a playlist, however, Session does allow you to delete playlists from a Session. You'll learn how to do this next.

### **Deleting a Playlist**

If you wish, you can delete a playlist from a session entirely. You may want to do this after experimenting with a particular arrangement of regions that didn't quite suit your needs. However, since playlists take almost no disk space, don't delete them for space reasons. You may just want to *unload* a playlist to get it out of the way. If you decide you want it later, you can load it up again.

#### **To delete a playlist currently loaded on a track:**

- Click the playlist pop-up on the desired track.

- Choose the *Delete* command. A dialog will appear asking you if you're sure you want to proceed.
- If you're sure you want to delete the playlist, click *Yes* or press return. The playlist will be deleted. This operation cannot be undone.

## Renaming Playlists

By default, playlists are automatically named audio 1, audio 2, and so on. However, you can assign more meaningful names like “lead vocal,” “rhythm guitar,” etc. These customized names will then appear on the track.

### **To rename a playlist currently loaded on a track:**

- Click the playlist button on the desired track.
- Choose *Rename*. A dialog will appear prompting you to rename the current playlist
- Enter a new name and click *OK*. The playlist will be renamed.

Now that you have learned how to create and manage playlists, the next step is recording audio onto them.

---

## Initiating Recording

In many ways, your first track is the most important track in a multitrack recording project because it forms the framework upon which all other tracks are built. If the basic timing of your first track is sloppy, the entire production could be affected.

The production cycle of a recording session typically progresses something like this. Set recording and monitoring levels and record your first track. Play back track 1 to make sure you like it, and set its volume level. Next, record track 2 while listening to track 1. Now play both tracks

back while recording track 3. Follow this same procedure for all subsequent tracks. With this in mind, You're ready to begin recording.

### To record an audio track:

- If you're just beginning a recording session, choose *Hardware Setup* from the Setup menu and click *Recalibrate Inputs*. This will help eliminate any *DC Offset* that may have built up in your system's analog-to-digital converters. (DC Offset is an imbalance that sometimes occurs in miscalibrated digital-to-analog converters. It can cause loss of headroom in recording and click and pops during editing.)
- Make sure that your audio source is connected to your computer. If you are using a Power Mac's built-in inputs, connect your source (ideally your mixer's output) to the *Sound Input* jack on the rear of your computer. If you are using an Audiomedia II card, make sure your mixer or preamp is connected to the input jacks of the Audiomedia card.
- In the Mix window, click the **R** button on the track that you wish to record on. This will record enable the track. The button turns red, indicating that the track is ready for recording.



- Click the Input Selector pop-up and choose the desired input (Input 1 or Input 2). Input 1 is the *left* channel. Input 2 is the *right* channel.





- Adjust your fader level and panning. These settings will not affect how your audio is recorded to disk, they are just for monitoring purposes. Session Software conveniently allows you to set two different fader levels: one for when you are *recording* (when the record enable button is depressed), and one for when you are simply playing back (when the record enable button is NOT depressed). This way, your original “rough mix” levels won’t be disturbed if you need to raise your monitor level during recording.
- If you are using a Power Mac’s built-in audio capabilities, Session’s track faders only allow two monitor levels: on or off—that is, full volume or zero volume. This is a limitation of the Power Mac’s sound chip. Thus, if a track’s monitor level fader is set anywhere above zero, audio is passed through at full volume. If a track’s monitor level fader is set at zero, audio is not passed through for monitoring. (The audio is still recorded to disk, but you just can’t hear it through the Apple Sound Manager.)



- Adjust the input level of your instrument, mixer, or preamp. Watch your Session track meter to get the highest possible level without clipping. (If you clip during recording, the clip indicator LED will light up and stay lit.)
- Click the Record button on the Transport. It turns red, indicating it is armed for recording.



- When you’re ready to start, click the *Play* button on the Transport. You are now recording to disk. (You can also press Command-Space bar to initiate recording.)



- When you have finished your take, click the Transport's *Stop* button or press the Space bar on your computer keyboard to stop recording.

### **To play back your tracks:**

- Click the R button on your track once again to take it out of record-enable.
- Click Play on the Transport or press the Space bar to begin playback. Adjust playback levels as you wish.

At this point, if you wish to retry your take, you can record another take and create a new audio file. Because Session records tracks “nondestructively,” your previous take will not be erased when you record again. Previously recorded takes always remain on your hard drive (and in the Edit window's *Audio Regions List*) as separate sound files unless you specifically decide to delete them. Session will give each new audio file the name of the track/playlist you recorded it on, and add a number to it (a higher number for each subsequent take you perform). This nondestructive recording capability gives you a great deal of flexibility since you can record take after take and decide later which ones you'd like to use.

### **To nondestructively record a new take on the same track or tracks:**

- Repeat the steps outlined above for recording a track. If you look at your tracks in the Edit window, you will see that each new take is “stacked” on top of the previous take on the track.

If you like, you can begin recording at any point in time within a file simply by going to that point (either with the Transport, or by going to the Edit window and clicking the Selector at the

desired point) and commencing recording in the same way as above. Session also provides a precise way of performing “punch-in” recording using the tools in the Edit window.

## Recording In Stereo

Session allows you to record two tracks at the same time. One of the most useful applications for recording two tracks simultaneously is recording vocals or instruments in stereo. If you plan to record an instrument in stereo, you must use two tracks so that you can capture both the left and right channels of the stereo signal. When you play the tracks, remember to pan one track full left and the other full right to preserve the stereo image.

### To record an instrument in stereo:

- Connect your instrument’s stereo outputs to your system. (Ideally, connect the instrument’s outputs to a mixer and connect the outputs of the mixer to your computer).
- Open the Mix window by choosing *Mix* from the Windows menu or pressing Command-M on your keyboard.
- In the Mix window, click the record-enable button on both of the tracks that you wish to record on. They turn red, indicating that the tracks are record-enabled.
- Click each of the tracks’ *Input Selectors* to route the appropriate inputs to the tracks. Assign track 1 to Input 1 (for the *left* channel). Assign track 2 to Input 2 (for the *right* channel).
- Adjust the panning of your two inputs so that one is panned full left and the other is panned full right. This will allow you to monitor the take in stereo.
- Play your instrument and adjust its output level.
- Click the *Record* button on the Transport. It turns red, indicating that you are ready to record.
- When you are ready to begin, click the Transport’s *Play* button. You’re now recording to hard disk. (You can also press Command-Space bar to initiate recording.)

- When you have finished your take, click the Transport's *Stop* button or press the Spacebar on your computer keyboard to stop recording.
- 

## Editing

---

### Understanding Audio Waveforms on Screen

When you record a take, Session displays a picture of the sound that makes up the take. If you've never seen an audio waveform before, this graphic "waveform overview" of the data may seem strange to you. The following explanation will help you understand what you're looking at. Before you go any further though, you should learn how to display your tracks as waveforms in the Edit window. Here's how you do this:

#### **To display all tracks as waveforms in the Edit window:**

- From the Display menu, choose *Waveforms*. A check next to this item indicates that it is enabled.
- From the Options menu, choose *Auto Calculate Waveforms*. A check next to this item indicates that it is enabled. When this option is enabled, Session will automatically calculate the waveforms for every new sound file you record or add or import into the session.

OR:

- From the File menu, choose *Calculate All Waveforms*. After a moment your tracks appear as waveforms. If the *Auto Calculate Waveforms* command is not chosen from the Options menu, you must do this each time you record a new track in order to see a waveform representation of your track.

### **To create a waveform overview for a specific sound file in a track in the Edit window:**

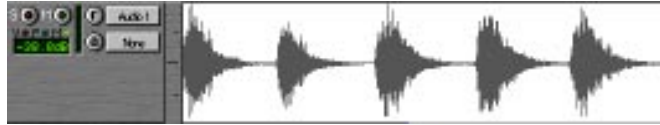
- From the Display menu, choose *Waveforms*. A check next to this item indicates that it is enabled.
- With the Grabber, click on the sound file that you wish to create a waveform overview for. If you wish to select more than sound file, hold down the Shift key while you click on multiple items.
- From the File menu, choose *Calculate Selected Waveforms*. After a moment the selected sound file(s) appear as waveforms in the tracks where they are located.

To get a better look at the waveforms, you can change the size of the tracks as they are shown in the Edit window. Four track sizes (*Micro*, *Small*, *Medium*, or *Large*) may be selected from the Display menu. Changing the track size can reduce the size of all tracks on screen to roughly half of the default height (*Small*) or increase the size to almost four times the default height.

### **To select the track size shown in the Edit window:**

- From the Display menu, choose one of the four track sizes:
- *Micro Tracks*, half the height of the default track size;
- *Small Tracks*, the default track size for newly created sessions;
- *Medium Tracks*, twice the height of the default track size; or,
- *Large Tracks*, four times the height of the default track size.

When you look at a waveform of one of your tracks in the Edit window, you're basically seeing a diagram of your recorded sound. This picture tells you several things about the sound. For example, take a look at the following illustration, which shows a typical waveform.

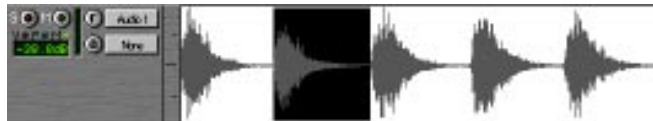


A typical audio waveform

This is a recording of some music with a standard 4/4 beat. The “peaks” that you see are actually beats—places in the recording where the volume goes up momentarily. These are followed by “valleys” where the volume goes down.

Different types of sounds produce different types of waveforms. Drums, for example, generally produce the kind of waveform you see in the illustration: sharp peaks of short duration which are very clearly defined. If you think about a drum’s sound, you’ll understand why: A drum hit has a loud, sharp attack, and a rapid decay. Other sounds, such as a vocal or a keyboard pad, produce a very different waveform, one that has less pronounced peaks and valleys. That’s because these sounds generally have softer attacks and longer decays. Using Session’s *Selector* tool, you can select portions of these waveforms and divide them into segments called *regions*, so that you can rearrange and manipulate them in tracks.

Getting back to our illustration, let’s look at a typical waveform selection. Notice that the selected range begins *before* a peak and *ends* immediately *before* a peak. This illustrates one of the golden rules for defining a music region:

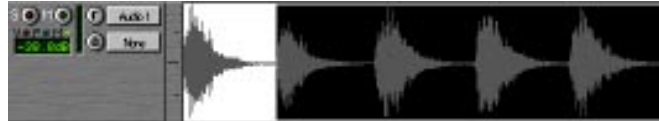


A typical one-beat selection

- Whenever possible, select a region precisely *before* a volume peak, and end it immediately *before* another volume peak.

Here is a second rule:

- Whenever possible, make sure a region starts and ends on exactly the same part of a beat.



*A four-beat selection*

One of the most important things to remember while you are editing music with Session is to create regions that allow you to maintain a consistent beat. If the beat or rhythm is not maintained when you place several regions next to each other and play back the track, it will seem to “skip” like a broken record. If you always define regions so that they contain a whole number of beats (1 beat rather than 1.3 beats, for example), you’ll be able to string all of these regions together and maintain a smooth, steady rhythm.

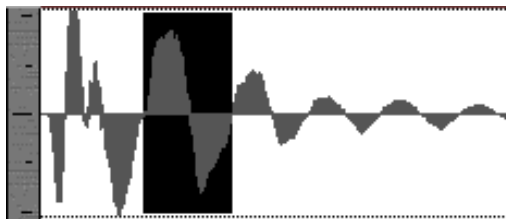
It’s sometimes useful to use a very steady, well-defined waveform, such as a drum track, as a guide when you select and define other regions. If you’ve played in time with the beat, chances are that you can create rhythmically accurate regions by referring to the drum’s waveform.

*Note: Session’s Grid Mode provides a way to have the Selector “snap-to” Bar/Beat Markers, time code and even other tracks. (Grid mode is explained later.)*

Here is one final important tip for creating useful regions:

- In order to avoid clicks or pops at the beginning or end of any regions that you define, try to make sure that the start and end points of your selection are as close as possible to the point where the amplitude of the waveform tapers down to meet the “zero-crossing line” (the center line of your track’s waveform display).

If you don't do this, and the selection begins or ends at a point of high amplitude in the region, you may hear an unpleasant click when Session plays from one region to another. Use the Zoom Arrows and Zoomer to zoom in very closely to make a precise edit such as this, and use the four Zoom preset buttons to remember track views you find most useful for your editing needs.



*Notice how the selection begins and ends where the waveform meets the "zero crossing" or center line. This type of selection helps avoid pops and clicks.*

These tips will start you on your way to understanding and creating regions that are easy to use. As you work with Session, you'll undoubtedly develop additional editing techniques of your own.

---

## Working with Playlists

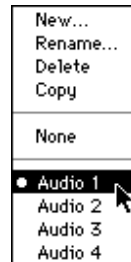
When you record a track, a sound file is created on that track. If you choose the *Calculate All Waveforms* command and look in the Edit window, you'll see the sound file's waveform on the track where it was recorded. At this point, you have the option of dividing the sound file into regions and arranging these into a different order. This is called creating a playlist. A playlist is nothing more than a particular arrangement of regions on a track. A playlist can consist of a single region or many regions. For all intents and purposes you can think of a playlist as an



alternative “take” where things are simply rearranged into a different order. Session allows you to create many of these different arrangements or playlists and load or unload them onto tracks as you wish. Playlists are accessed by clicking on a track’s *Playlist/Input Selector* button.

### To load a playlist:

- Click the Playlist button of the desired track. This menu appears:



*The Playlist pop-up menu*

- Choose a playlist. The playlists are numbered successively *Audio 1*, *Audio 2*, *Audio 3*, *Audio 4*, and so on.

The playlist will be loaded onto this track. You can name a playlist to give it a meaningful name such as *Drums*, *Guitar Solo*, or whatever you like. By changing playlists you can load and unload different arrangements of regions on a track. The Playlist pop-up menu is what you use to change the assignments of playlists to tracks.

### Unloading a Playlist

By default, all tracks contain playlists. However, if you wish, you can take a playlist out of a track, leaving the track empty. This doesn’t delete the playlist—it just isn’t loaded onto that track any more. This is a useful way to temporarily open up additional tracks while working on a complex song. You could for example unload all tracks but one (to use as your guide track) and use the remaining tracks

to beef up a specific part such as vocal harmonies, creating a virtual “wall of sound,” and then bouncing the tracks down to one or two tracks sometime later.

### **To unload a playlist:**

- Click the Playlist button of the desired track. The Playlist menu appears.
- Choose *None*.

The playlist will be unloaded from this track. When a track does not contain a playlist, it turns white in the Edit window. In the Mix window, tracks without playlists simply have no name, and their Record-enable buttons are grayed-out. You cannot record on a track that doesn't contain a playlist.

### **Loading a Different Playlist**

With the same pop-up menu, it's possible to load up a different playlist on a track. When you do this, the playlist which is currently active on the selected track will be temporarily replaced by the new playlist.

### **To load a playlist:**

- Click the Playlist button of the desired track. The Playlist menu appears.
- Choose the playlist you want to load. Playlists that are already loaded to other tracks cannot be selected. The playlist you choose will be loaded to the selected track.

When a playlist is unloaded, it still exists in the session file and can be reloaded at any time. If you really want to get rid of a playlist, however, Session does allow you to delete playlists from a session. You'll learn how to do this later.

### **Adding a New Playlist**

If you want to create a new, empty playlist to begin experimenting with different arrangements of regions, you can use the *New* command in the Playlist pop-up menu. When you choose this

command, Session will create a new empty playlist in the current track. If there is already a playlist assigned to this track, it will be unloaded.

### **To add a new playlist:**

- Click the Playlist button on the desired track.
- Choose the *New* command. A dialog Indicator will appear, allowing you to name the new playlist.
- Click *OK* if you want to use the default playlist name or type in one of your own.
- An empty playlist with the name you assigned will be placed in the current track.

### **Deleting a Playlist**

If you wish, you can delete a playlist from a session entirely. You may want to do this after experimenting with a particular arrangement of regions that didn't quite suit your needs. However, since playlists take almost no disk space, you don't need to delete them for space reasons. You may just want to *unload* a playlist to get it out of the way. If you decide you want it later, you can load it again.

### **To delete a playlist currently loaded on a track:**

- Click the Playlist button on the desired track. A pop-up menu appears.
- Choose the *Delete* command. A dialog will appear asking you if you're sure you want to proceed.
- If you're sure you want to delete the playlist, click *Yes* or hit return. The playlist will be deleted. This operation cannot be undone.

### **Renaming Playlists**

By default, playlists are automatically named *Audio 1*, *Audio 2*, and so on. However, you can assign more meaningful names like "lead vocal," "rhythm guitar," etc. These customized names will then appear on the track.

### **To rename a playlist currently loaded on a track:**

- Click the playlist button on the desired track.
- Choose *Rename*. A dialog will appear prompting you to rename the current playlist
- Enter a new name and click *OK*. The playlist will be renamed.

Now that you have learned how to create and manage playlists, the next step is creating regions *to put into* your playlists. Because regions are the basis of every track in your session, learning how to create, edit, and arrange them is essential to using Session to its full potential.

Before you get started creating and editing regions, keep in mind once again that all editing that you do with Session's editing tools is non-destructive. Whether you are cutting, pasting, resizing or deleting regions, your source audio files remain safe, so don't be afraid to experiment.

---

## **Auditioning Tracks**

Before you create any regions, you'll probably want to audition various points in your track to see which sections would make good regions. You can do this quickly by clicking the Selector at a given location in a track and starting playback from there. Before you begin, make sure that all of your tracks are displayed as waveforms. (If necessary, use the *Calculate All Waveforms* command in the File menu.)

### **To set the playback point and start audio playback:**

- In the Edit window, click on the Selector or type the letter **x** to activate the Selector. The cursor turns into an I-beam.
- Click once and release the mouse button at any point in a track.
- Press the Space bar to begin playback from this point. To stop playback, hit the Space bar again.

If you want to jump to a different location in your track, simply click the Selector at that point and press the Space bar again.

If you want the playback cursor to follow a track as it plays back and stop where playback stops, do the following:

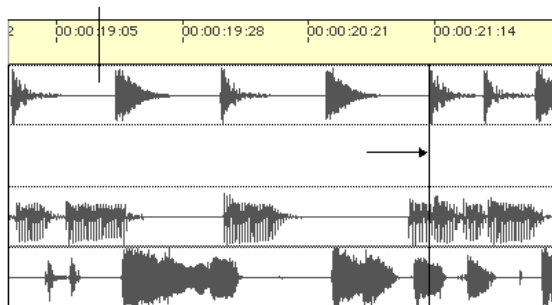
**To make the playback cursor follow audio playback:**

- Choose *Insertion Chases Playback* from the Options menu.
- Click on the Selector, or type the letter **x** to activate the Selector. The cursor turns into an I-beam.
- Click once and release the mouse button at any point in a track.
- Press the Space bar to begin playback. The playback cursor will follow playback of the track and stop where playback stops.

**Page Scrolling and Power Scroll**

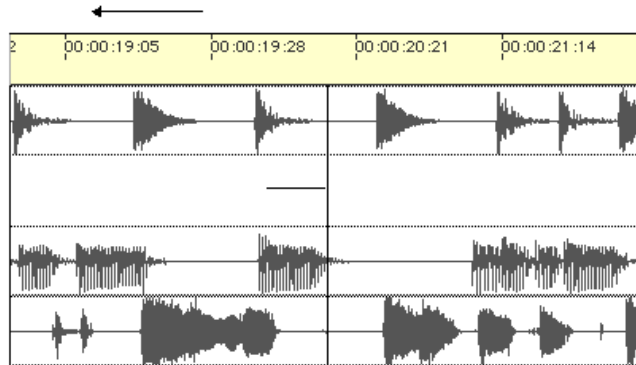
If you want the tracks and the Time Line to scroll during playback, you can choose between Session's two scroll modes: *Page Scrolling* and *Power Scroll*.

*Page Scrolling* updates the track and Time Line “page” each time the playback cursor finishes rolling across the screen during playback. The playback cursor will then play across a new page representing the current audio data, repeating this each time the screen needs updating.



*Page Scrolling*

*Power Scroll* allows the playback cursor to remain stationary in the middle of the screen while the tracks and the Time Line roll continuously underneath.



*Power Scroll*

**To make the screen scroll *during* playback:**

- Choose either *Page Scrolling* or *Power Scroll* from the Options menu. Selecting one of the scroll modes automatically disables the other. A check next to one of these items indicates that it is enabled.
- Click the Selector. The cursor turns into an I-beam.
- Click once and release the mouse button at any point in a track.
- Press the Space bar to begin playback. The screen will scroll during playback according to the mode selected.

## To stop the screen from scrolling *during* playback:

- Choose either *Page Scrolling* or *Power Scroll* from the Options menu if one of those items is enabled. A check next to one of these items indicates that it is enabled. Selecting an enabled item automatically disables it.
- 

## About Session's Two Edit Selection Modes

Session's Edit window has two selection modes that are *always* active and are interchangeable by selecting their corresponding Editing tools: the Selector and the Grabber.

In later sections, you will learn how to use both the Selector and the Grabber to accomplish different edits. The Selector establishes the playback position and highlights waveform areas within a region's boundaries for editing. Anything you want done to the waveform of a sound file—playing, looping, fading, defining Markers, defining new regions—can be accomplished with the Selector. The Grabber on the other hand primarily selects portions of sound files that are defined as regions. Since regions are entities with boundary parameters, they can be “grabbed” and subsequently Moved, Re-sized, Deleted, Cut, Copied, Pasted, and so on.

Because the Selector and the Grabber allow you to perform different duties, Session keeps both these selection modes active for editing flow and versatility—so you don't lose any work and time in one mode when switching to the other. For example, you can use the Selector to highlight a waveform area for loop playback and then use the Grabber to move or resize a region to position against your highlighted selection. Even though the Grabber may be the current selection tool, the highlighted area remains selected and active, so playback still follows the highlighted selection.

*USER TIP: Pressing the z, x and c keys on the Macintosh keyboard allows you to conveniently toggle between the Zoomer, the Selector, and the Grabber respectively.*

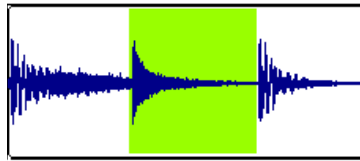
---

## Selecting Waveforms

Once you've found a portion of your sound file that you want to make into a region, the next step is to select that portion of the sound file with the Selector. Keep in mind some of the points you learned about creating "musical" regions.

### To select a waveform:

- Make sure a sound file is visible on one of your tracks in the Edit window.
- Click on the Selector, or type the letter **x** to activate the Selector.
- Position the Selector at one end of the selection you wish to make.
- Click and drag the mouse left or right. The selection range will change as you move the mouse.
- When the selection encompasses the desired range, release the mouse button. The selection is complete. As you can see, selecting waveforms is easy when you can see the waveform data.



*Selecting a waveform*

*Note: Session's "Grid" Mode provides a way to have the Selector "snap-to" Bar/Beat values, time scales and region boundaries on other tracks.*



### **To make a selection “on the fly” during playback:**

- Make sure a sound file is visible on one of your tracks in the Edit window.
- Click the Selector at the beginning of the track in which you want to make the selection.
- Press the Space bar or click the Transport’s Play button to start playback.
- As your track plays, press the **down arrow key** on your Macintosh keyboard at the point where you want the selection to begin. Press the **up arrow key** at the point where you want the selection to end.
- To stop playback, press the Space bar. The waveform range that you selected will appear highlighted on the track.
- To automatically scroll the display to the beginning of the selection, press the **left arrow key**. To scroll the display to the end of the selection, press the **right arrow key**.

### **Changing the Length of a Selection**

If you change your mind and want to make a selection a little longer or shorter you can easily do this. Simply hold down the Shift key and click and drag the mouse at the beginning or end of the selection you wish to extend.

### **To change the length of a selection:**

- Position the Selector over one end of the current selection and press and hold the Shift key.
- Click and drag the mouse. The range of the selection will change as you drag the mouse.
- When you have adjusted the selection to the desired size, release the mouse button.

When Grid mode is enabled, the length of the selection changes by the current Grid value. If you wish to extend the selection to a location Marker, simply Shift-click on the Marker. This Shift-drag technique is also very handy when you want to make a very long selection. Here’s how you can put it to good use:

## To quickly make a lengthy selection:

- Use the Selector to click where you want the selection to start.
- Release the mouse button and then scroll to the desired end point. (The beginning of your selection will probably scroll out of sight, but don't worry—it's still there.)
- Hold down the Shift key, and click at the desired end point. Release the mouse button, and you will have made your lengthy selection.

Remember, when using the Selector you can also use the Numeric Entry Editing to change the length of your selection. If you type values in numeric editing fields at the top of the screen, you can adjust the length of selection accordingly:

- The **Slash** key (/) on your Macintosh keyboard takes you into and toggles through numeric entry fields, and the **Escape** key (ESC) exits out of numeric entry fields. A red outline around a field indicates the current active field for numeric editing. After you type in a number, press the Enter or Return key on your keyboard and Session will adjust the selection according to the values you have entered.



- If the Numeric Editing Mode button is set to *Move* mode, you can make a selection and type a number in the *Start* or *End* numeric entry fields to adjust the placement of the selection in the session without changing its duration.



- If the Numeric Editing Mode button is set to *Trim* mode, you can adjust *only* the start or end time of the selection based on the values that you enter in the *Start* or *End* numeric editing fields, and the duration of the selection changes accordingly.
- In either Numeric Editing Mode, you can extend the end of the selection and leave the start of the selection the same by entering the desired selection length in the *Duration* numeric entry field.

- If you precede the number you are typing in any of these numeric fields with a plus or minus, it will add or subtract from the selection. For example, if you type +250 (Enter) it will add 250 to the value in the selected field.

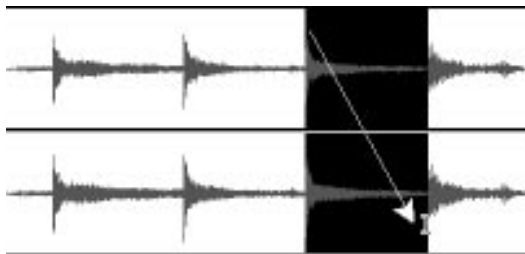
*NOTE: Pressing the Enter key will drop a location Marker if you are NOT editing a numeric field. So make sure you are in numeric editing mode before pressing the Enter key.*

### **Selecting Waveforms Across Multiple Tracks**

A selection can be made across multiple tracks. This is convenient if you want to select regions of the same length on several tracks at once.

#### **To Select across multiple tracks:**

- Begin your selection on the top or bottom track you wish to include in the selection.
- As you drag the mouse, simply move it upwards or downwards over the adjacent track(s). The selection now includes multiple tracks.
- Continue dragging until you've selected the area you want, then release the mouse button.

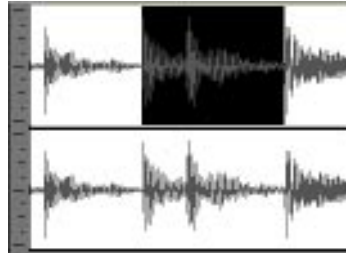


*Dragging the mouse over adjacent tracks to make a selection across multiple tracks*

If you have a selection on one track that you wish to extend across multiple tracks, you can keep the selected range horizontally constrained by doing the following:

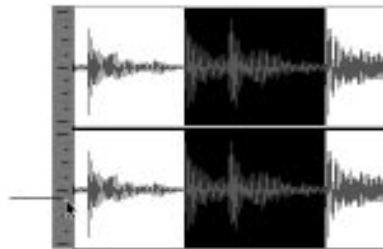
**To extend a horizontally constrained selection across multiple tracks:**

- Select a portion of a waveform on one track.



*Selecting a portion of one track to extend across multiple tracks*

- Hold down the Shift key, and click on the Volume Axis (left of the waveform display window) next to the track you wish to extend the selection to. The selection from the original selected track will extend across to the newly selected track and remain constrained to its original range.



*Clicking on the Volume Axis to extend a horizontally constrained selection*

All tracks between the original and newly selected tracks will also be selected. If you want the selection to extend across only certain playlists, then load the playlists to adjacent tracks before extending the selection.

*USER TIP: To select all the audio from the cursor to the next region boundary, press Shift-Tab. To select all the audio from the cursor to the previous region boundary, press Shift-Option-Tab. To select all audio to the left of the cursor, choose the Select Left of Current command (Command-Shift-[ ) in the Edit menu. To select all audio to the right of the cursor, choose the Select Right of Current command (Command-Shift-] ) in the Edit menu. This can be handy for creating Fades Ins and Outs.*

---

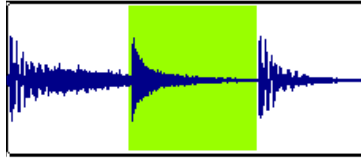
## Creating New Audio Regions

You are now going to learn how to create your own regions. Session provides you with several commands for doing this, including the *Make New Region(s)* command and the *Separate Region* command. Both of these commands differ in their effect on a selection.

The first of these commands, the *Make New Region(s)* command, defines a selection as a new region. The new region then appears in the track (on top of the sound file from which it was created) and in the Regions List at the right of the screen.

### **To create a new region with the *Make New Region(s)* command:**

- Click on the Selector, or type the letter **x** to activate the Selector.
- Click and hold the mouse button where you want the region to begin.
- Drag the mouse to select the portion of the waveform that you want to capture as your region.



*Selecting a waveform*

- Release the mouse button where you want the region to end.
- Choose *Make New Region(s)* from the Edit menu. When Session prompts you to name the region, enter a name and click *OK*.



*Naming a new region*

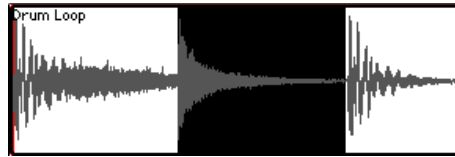
Your new region will appear both in the track and in the Audio Regions List at the right of the screen. If you look at the new region's name in the Regions List, you will see that it has the name that you just gave it. All region names are actually composed of two parts: the name of the *sound file* from which it came and the *region* name you gave it. Regions can be renamed later, either by clicking on their names in the Audio Regions List or by clicking on the region itself in a track.

### **The Separate Region Command**

The next of these commands, the *Separate Region* command, defines a selection as a new region and in the process, separates it from audio data adjacent to it. The new region then appears in the track, separate from the sound file from which it was created, and in the Regions List at the right of the screen. By separating a region you will also create “by-product” regions from data on either side of the separation. These regions also appear in the Regions List.

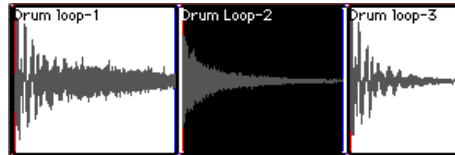
### To separate a region with the *Separate Region* command:

- Click on the Selector, or type the letter **x** to activate the Selector.
- Click and hold the mouse button where you want the region to begin.
- Drag the mouse to select the portion of the waveform that you want to separate as a new region.
- Release the mouse button where you want the region to end.



*Making a selection to Separate as a new region*

- Choose *Separate Region* from the Edit menu (Shift-Command-R). When Session prompts you to name the region, enter a name and click **OK**.



*A Separated Region*

The new region will appear in the track in which it was created, separate from the data surrounding it. As with all regions, it will also appear in the Regions List at the right of the screen. From there it can be dragged into other tracks. Note that by separating the region you have created “by-product” regions from data on either side of the separation. These regions also appear alphanumerically by region name in the Regions List.

*USER TIP: To select audio from a cursor positioned within a region to the end of the region, press Shift-Tab. To select audio from a cursor positioned within a region to the beginning of the region, press Option-Shift-Tab. This is handy for creating Fades Ins and Outs for regions.*

---

## Placing a Region in a Track

Once you have created a region, it appears in the Audio Regions List at the right of the Edit window. From here you can drag it into a track to add to an existing playlist or create a new playlist and start from scratch. The exact placement of a region in a playlist depends on the current Grid setting. Grid modes will be explained later, but for now, Grid mode should be set to *Off*.

### **To place a region in a playlist:**

- Click on the Grabber, or type the letter **c** to activate the Grabber.
- Click and hold the Grabber on the name of a region in the Audio Regions List.
- Drag the highlighted region name from the *Audio Regions List* into the desired track.
- When the region is in position over the desired track, release the mouse button. The new region will be added to the playlist in that track.

If you want, you can drag multiple regions from the Audio Regions List at the same time by Shift-selecting them. Each region will be placed in a different track, if available. This technique is useful for bringing regions that are part of a stereo pair (the right and left channels of an instrument recorded in stereo) into two tracks while keeping them lined up together in perfect phase.



Session also allows you to place regions from different sound files into the same track. Unless you're running low on tracks, it is probably more useful to keep all the regions of a particular musical part (such as a vocal) in separate tracks for simplicity's sake.

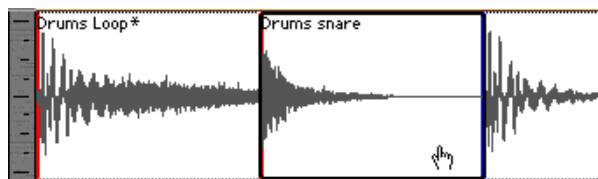
## Selecting an Entire Region

Now that you have placed your region into a new playlist, you can manipulate it in a number of ways such as moving or resizing it. In order to move, resize, or delete a region, you must use the Grabber to select the entire region and then perform one of these actions.

### To select an entire region with the Grabber:

- Click the Grabber, or type the letter **c** to activate the Grabber.
- Click anywhere inside the region you want to select.

The region's outline box appears in bold, as shown below. This indicates that the region is now selected. Later, you'll learn to resize regions by dragging their start and end points.



*A selected region (selected with the Grabber tool)*

Another technique exists for selecting entire regions, this one using the Selector tool. When you use the Selector to select an entire region, the entire region's waveform will be selected (not just the region boundary as when you use the Grabber). Generally you'll want to use the Selector to select an entire waveform for making Fades and Bar & Beat Markers that span the entire region (and use the Grabber to edit an entire region definition by moving, resizing, or deleting).

### To select an entire region with the Selector:

- Click on the Selector, or type the letter **x** to activate the Selector.
- Double-click anywhere inside the region you want to select. The entire region's waveform will be selected as in the following example, in which the region *Drums: Kick* was double-clicked with the Selector:



*A selected region (selected with the Selector tool)*

The Selector tool also lets you quickly select the *silence between* regions simply by double-clicking.

### To select a silence gap:

- Click on the Selector, or type the letter **x** to activate the Selector.
- Identify a silence gap which you want to select. In the following example, we've zoomed in on a silence gap within the drum track of the Demo session:



*A track with silence gaps*

- With the Selector, double-click in the silence gap. The entire silence gap will be selected:



*A silence gap selected by double-clicking with the Selector tool*

### Selecting Multiple Regions

You can select, move, or resize more than one region at the same time by first selecting multiple regions with one of these techniques:

#### **To select multiple regions:**

- Click the Grabber, or type the letter **c** to activate the Grabber.
- Click a region to select it.
- Hold down the Shift key and click another region. Now both regions are selected. Repeat as necessary.
- Shift-clicking an already selected region allows you to deselect it.

If you want to select all the regions to the right or left of the currently selected region, use the *Left of Current* or *Right of Current* command in the *Select* sub-menu in the Edit menu.

#### **To select all regions to the left of a selected region:**

- Click the Grabber, or type the letter **c** to activate the Grabber.
- Click a region to select it.
- From the Edit menu choose the *Left of Current* command in the *Select* sub-menu in the Edit menu.

- All regions to the left of the selected region are selected.

### **To select all regions to the right of a selected region:**

- Click the Grabber, or type the letter **c** to activate the Grabber.
- Click a region to select it.
- From the Edit menu choose the *Right of Current* command in the *Select* sub-menu in the Edit menu.
- All regions to the right of the selected region are selected.

### **Deleting Regions From a Playlist**

A region, or group of regions may be deleted from a playlist at any time. When a region is deleted from a playlist, the actual digital audio on the drive is unaffected, so deleting regions from playlists won't help you save any space on your hard drive. Deleting a region from a playlist won't even delete the *definition* of that particular region. If it's used elsewhere in the session, other occurrences of the region will remain unchanged. Deleting a region just means that the region won't appear in that particular spot in your playlist anymore.

### **To delete a region from a playlist:**

- With the Grabber, select the region you wish to delete. If you wish to select multiple regions, hold down the Shift key and click additional regions.
- Press the Delete key on the keyboard.

If you change your mind, this operation can be undone with the *Undo* command.

### **IMPORTANT**

Remember that Session has two selection modes that are *always* active: the Selector and the Grabber. Regions can only be deleted when selected with the Grabber. If you selected a region

with the Selector with the intention of deleting it and the Grabber has another region selected, pressing the Delete key will *only* delete the region selected by the Grabber and *not* by the Selector.

### Deleting Regions From the Audio Regions List

A region can only be deleted from the Audio Regions List if it is not used in the current session. This is true even if the playlist that the region is being used in is not currently loaded on a track. When you delete a region from the Audio Regions List, you won't see it in that session again unless you add that region back into the session with the *Add Audio File(s)* command.

#### **To delete a region from the Audio Regions List:**

- Delete the region from all playlists (loaded or unloaded) in the current session.
  - Select the region in the Audio Regions List.
  - Choose the *Delete Region(s)* command from the Edit menu.
  - If the region is not currently in use in a playlist, it will be removed from the Audio Regions List.
- 

## Cutting Regions

With the *Cut* command you can “cut” an entire region out of its current position. The Macintosh holds it on the Clipboard (the Macintosh's internal memory) in case you want to paste it elsewhere. Of course, since editing in Session is nondestructive, you aren't actually cutting data from the original audio file, but the effect is the same as if you were.

#### **To Cut an entire region:**

- Click the Grabber, or type the letter **c** to activate the Grabber.

- Click on a region to select it.
- From the Edit menu, choose the *Cut* command (Command-x).
- The region is removed and placed on the Macintosh's Clipboard.

## Copying Regions

The *Copy* command is much like the *Cut* command, but instead of removing the selected region, it leaves the original, and places a copy of it in the Macintosh's Clipboard so that you can paste it elsewhere.

### To Copy an entire region:

- Click the Grabber, or type the letter **c** to activate the Grabber.
- Click on a region to select it.
- From the Edit menu, choose the *Copy* command (Command-c).
- The region is copied and placed on the Macintosh's Clipboard.

Session provides you with a handy shortcut for copying and placing a whole region in a new location. You may be familiar with this technique if you've ever used a Macintosh graphics software: **Option-drag**. With this technique you simply hold down the Option key, select a region, and drag a copy of it to a desired location.

### To Copy a region with the Option key:

- Click the Grabber, or type the letter **c** to activate the Grabber.
- Hold down the Option key.
- Click and drag the region you wish to copy to a new location. A copy of the selected region will appear in the new location. The original will remain in its original location.

## Pasting Regions

By using the *Paste* command, you can insert a copied region into a location that you have chosen with the Selector. It is only possible to paste a region after it has been cut or copied to the Macintosh's Clipboard.

### To Paste a region:

- Click the Selector, or type the letter **x** to activate the Selector.
- Click the Selector at the point where you wish to insert the audio data in a track. Alternately, click and drag to select a waveform range that you wish to replace with the pasted data.
- From the Edit menu, choose the *Paste* command (Command-v).

The Clipboard contents are inserted into the selected track(s), beginning immediately after the blinking insertion point and overlapping any regions at the same position in the session.

## Clearing Regions

The *Clear* command allows you to remove a selected region.

### To Clear an entire region:

- Click the Grabber, or type the letter **c** to activate the Grabber.
- Click on a region to select it.
- From the Edit menu, choose the *Clear* command, or press the delete key.
- The region is removed from the track.

If you change your mind, this operation can be undone with the *Undo* command.

*NOTE: Pressing the Delete key is another quick way to clear a selection or region from a track.*

## Duplicating Regions

The *Duplicate* command copies a selection and places it immediately after the end of the selection in a track. It provides you with a very handy way of repeating a region (to create a drum “loop,” a repeating bass figure, etc.,) and is faster and more convenient than copying and pasting data to achieve the same result—particularly if you want to duplicate data on multiple tracks. Use one of the Shift-click techniques explained earlier to select multiple regions on multiple tracks.

### **To Duplicate an entire region:**

- Click the Grabber, or type the letter **c** to activate the Grabber.
- Click on a region to select it.
- From the Edit menu, choose the *Duplicate* command (Command-d).

The duplicated data will be placed directly after the end of the selection. Data occurring after it will remain in the same track position, and the duplicated data will overlap any adjacent data.

---

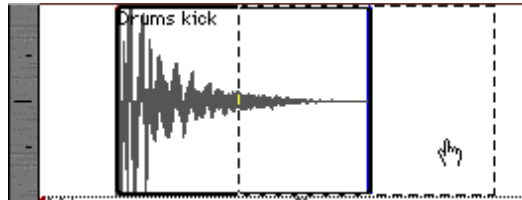
## Moving Regions

A region, or group of selected regions can be moved together. Multiple regions in the same playlist, or different playlists can be moved as a group. Remember that the movement of regions is constrained by the current Grid mode.



## To move a region or regions:

- Click the Grabber, or type the letter **c** to activate the Grabber.
- Click and hold the mouse button on a region and drag left or right. You will see a dashed outline of the selected region(s) moving as you drag.



*Moving a selected region*

- When the region is in the desired position, release the mouse button. The selected region(s) will be moved to the new location.
- If you want to move several regions at once, Shift-click them to select them and then move them together.

If you don't like the result, the move can be undone with the *Undo* command in the Edit menu.

When Grid mode is enabled, **command-left arrow** moves the selected region to the left by the current Grid value and relative to the region's current position, and **command-right arrow** moves the selected region to the right by the current Grid value and relative to the region's current position.

You can also use the Numeric Entry Editing to move your grabbed region. If you type values in numeric entry fields at the top of the screen, you can move the region accordingly:

- The **Slash** key (/) on your Macintosh keyboard takes you into and toggles through numeric entry fields, and the **Escape** key (ESC) exits out of numeric entry fields. A red outline around a field indicates the current active field for numeric editing. After you type in a number, press the Enter or Return key on your keyboard and Session will adjust the selection according to the values you have entered.
- If the Numeric Editing Mode button is set to *Move* mode, you can select a region and move the region's beginning or end point to the value you enter in the *Start* or *End* numeric entry fields. (Pressing the **asterisk** key (\*) on the key pad section of the keyboard will toggle between *Move* mode and *Trim* mode.)
- If the Numeric Editing Mode button is set to either *Move* or *Trim* mode, you can move the region by entering a location for the region's Sync point in the *Sync* numeric entry field.
- If you precede the number you are typing in any of these numeric fields with a plus or minus, it will add or subtract from the selection. For example, if you type +250 (Enter) it will add 250 to the value in the selected field.

*NOTE: Pressing the Enter key will drop a location Marker if you are NOT editing a numeric field. So make sure you are in numeric editing mode before pressing the Enter key.*

### **Moving Regions in Front or Back of Other Regions**

Because Session treats regions as if they were objects, you will often find regions overlapping each other. In fact it's even possible for a region to become "buried" underneath several other regions. Whatever region is on top of the pile will be heard as that portion of the track plays. If you want to hear a part of a region which is hidden behind another region, you'll need to move it to the front, or move the other region to the back.

#### **To move a region behind other regions**

- With the Grabber, select the region.
- From the Edit menu choose the *Send to Back* command.

The selected region is moved to the back. The selected region is now partially obscured by the second region. The process can be reversed by using the *Bring to Front* command.

**To move a region in front of other regions:**

- With the Grabber, select the region.
- From the Edit menu, choose the *Bring to Front* command. The selected region is moved to the front.

If one region is longer than another, it's possible for a shorter region to be completely hidden if it is moved behind a longer one. If this happens, the only way to reveal the "buried" region is to select and *Move to Back* (or delete) the longer region. Remember, you can't hear any part of a region that you can't see.

---

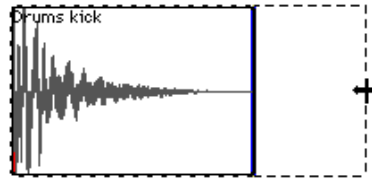
## Resizing Regions

The length of a region can be changed at any time. When you resize a region, you are actually exposing or covering up additional audio from the original sound file at the beginning or end of the region—don't worry, you are not erasing anything..

**To resize a region:**

- With the Grabber, select the region(s) you want to resize. You can resize more than one region at a time by Shift-selecting multiple regions.
- Hold the Grabber over the start or end point of one of the selected regions, and the Grabber will turn into a left/right arrow.
- Click and hold the region start or end point. (Select the start point on the left if you want to change the region's beginning, and the end point on the right to change the region's end.)

- Drag the mouse. You'll see the length of the region change as you drag.



*Resizing a region*

- Release the mouse button and the region(s) will be re-sized. If you're unhappy with the results, you can undo this command by selecting *Undo* from the Edit menu.

You can also use the Numeric Entry Editing to re-size your grabbed region. If you type values in numeric editing fields at the top of the screen, you can re-size the region accordingly:

- The **Slash** key (/) on your Macintosh keyboard takes you into and toggles through numeric entry fields, and the **Escape** key (ESC) exits out of numeric entry fields. A red outline around a field indicates the current active field for numeric editing. After you type in a number, press the Enter or Return key on your keyboard and Session will adjust the selection according to the values you have entered.



- If the Numeric Editing Mode button is set to *Trim* mode, you can adjust *only* the start or end time of the region based on the values that you enter in the *Start* or *End* numeric editing fields. (Pressing the **asterisk** key (\*) on the key pad section of the keyboard will toggle between *Move* mode and *Trim* mode.)
- If the Numeric Editing Mode button is set to either *Trim* mode or *Move* mode, you can extend the end of the region and leave the start of the region the same by entering the desired region length in the *Duration* numeric entry field.
- If you precede the number you are typing in any of these numeric fields with a plus or minus, it will add or subtract from the selection. For example, if you type +250 (Enter) it will add 250 to the value in the selected field.

*NOTE: In Trim mode typing a value or subtracting to a value in the End field that is earlier than the Start field will delete the selected region from the track. Similarly, in Trim mode subtracting a value in the Duration field that is less than the current duration of the selection region will delete that region from the track.*

*NOTE: Pressing the Enter key will drop a location Marker if you are NOT editing a numeric field. So make sure you are in numeric editing mode before pressing the Enter key.*

## **IMPORTANT**

You can resize a region at any time. However, if the region you resize is used elsewhere in the session, a new region will automatically be created to avoid unintended changes from appearing in other parts of your session. These automatically created regions take the name of the original region and add a number to the end to keep them unique.

*NOTE: If you want to silence a small portion of one placement of a particular region, but don't want to create an entirely new region, just lay the special region called Silence over the part you want to mute. This keeps the number of unnecessary regions in the Audio Regions List down, and will make the other regions easier to find.*

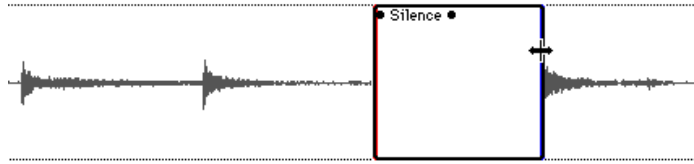
---

## **Using the Silence Region**

There will be some situations in which you wish to remove unwanted portions of a sound file. You might decide an instrument should not play in a particular section, or there could be extraneous noise or hum before or after the performance. While Session can't destructively remove or silence a specific section of a sound file, you can still silence the undesired segment of sound in the session by using the *Silence* region.

### To place a Silence region in a playlist:

- Click the *Silence* region in the Audio Regions List and drag it onto the portion of the track you wish to mute.
- Using the region resizing techniques described previously, adjust the length of the *Silence* region to mask only the undesired sound.

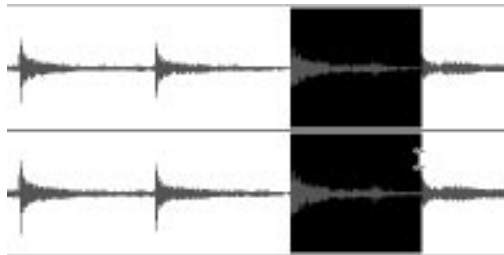


*Placing the Silence region in a track*

Session provides an even more convenient way of creating Silence regions of a specific duration. This technique utilizes the *Make New Silence Region(s)* command.

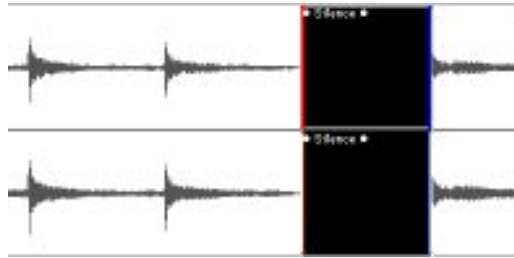
### To Make a Silence region of a specific duration:

- With the Selector, select the portion of the track(s) that you wish to silence.



*Make a selection on one or more tracks to create Silence*

- From the Edit menu, choose the *Make New Silence Region(s)* command (Option-Command-r). Session creates a new Silence region of exactly the same duration as your selection. The new Silence region appears in the track on top of your original selection.



*Choose the Make New Silence Region(s) command  
to create Silence of exactly the length of your selection*

There are two things about the *Silence* region that differentiate it from all other regions. First, it's always available in the Audio Regions List. The second difference is, when you adjust the length of the *Silence* region, Session doesn't create a new version of the region as it would if you re-sized other existing regions. So, you can create silences of any length without creating additional regions in your Audio Regions List. The *Silence* region can be deleted, moved and re-sized in a track in the same way a normal region can.

## IMPORTANT

If you're placing the *Silence* region over a noisy passage, a word of advice: Make sure that you place the beginning of the *Silence* region at a point where the amplitude of the waveform you are covering tapers down to meet the zero-crossing line (the center line of your track's waveform display). If you don't do this, and the *Silence* region begins at a point of high amplitude in the region it covers, you'll hear an unpleasant click during the transition. Zoom in very closely if you're trying to make a precise edit with the *Silence* region.

---

## Grid Mode And Its Effect on Region Editing

Session's Grid Mode provides you with an effective tool for quick and accurate selection of waveforms, and alignment of regions in tracks. When Grid Mode is on, the Selector will “snap to” the currently selected grid mode value, and regions placed in the Edit window will also line up with the selected value. If you've worked with MIDI sequencers before, you can think of Grid mode as being akin to the quantizing of note start times. However, there is an important difference—exact alignment of region start points doesn't guarantee that the audio within those regions will line up on the beat, since the sound within a region doesn't necessarily start at the beginning of the region.

To help in accurate alignment of regions, Grid Mode provides three types of external alignment references: time scales, Bars & Beats, and the beginning and end of other regions. These external references create invisible “snap points” which the start points of regions are attracted to.

### Changing Grid Modes

The current Grid mode is displayed in the tool bar in the Edit window. The default mode is *Off*.

The Grid has four primary modes of operation. They are:

1. *Off*, where Grid mode is turned off.
2. Time scales, including *SMPTE*, *Feet & Frames* (for film applications), and *Time Line*, which allow for “spotting” regions to a time-base reference such as SMPTE.
3. Rhythmic divisions, including *Beat Markers*, *Bars*, *1/4*, *8th*, *16th*, *32nd* & *64th notes*, which provide easy alignment to a user-defined Bars and Beats reference.
4. *Grid to Edits* which aligns regions to the beginning and ending edges of regions on all tracks.

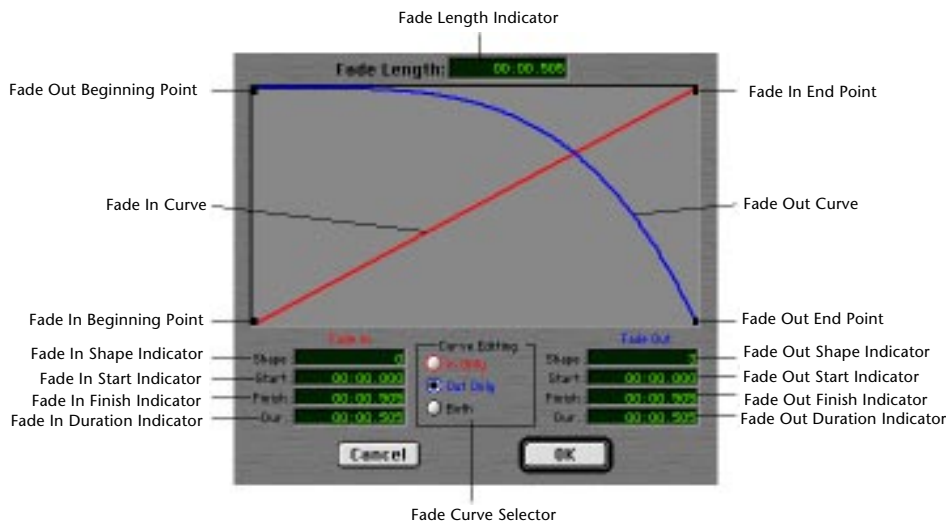


## Creating Crossfades Between Regions

Though Session's digital editing tools give you the means to create extremely precise edits, there are still times when transitions between regions may require some smoothing. For this reason, Session provides a *Fades* command which allows you to crossfade between two adjacent audio regions. Crossfade duration, position, and shape are all user-selectable, allowing you to tailor the crossfade to your exact needs. There are 25 different Fade In and Fade Out shapes each to choose from, providing a total of 625 possible crossfade combinations.

When you create a crossfade with this command, Session computes the crossfade and writes it to disk. The crossfade document appears in a folder named *Fade Files* within the session folder. When you play back your track, Session reads the crossfade file from disk. Fade durations can be as long as you want.

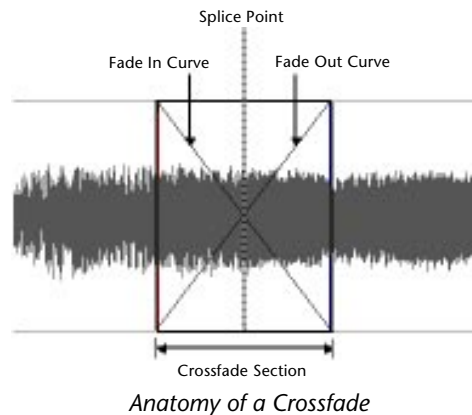
A variety of Fade In and Fade Out curves can be selected in the Fades dialog:



The Fades dialog

Different shaped curves can be assigned to the Fade In and Fade Out portions of the crossfade by click-dragging the Fade In and Fade Out curves into the desired shapes. The Beginning and End times for each Fade portion can also be assigned by click-dragging the Beginning and End Points of a Fade curve. The numeric reference fields in the Fades dialog show the overall length of the Fade, as well as individual Shape, Start and Finish Times, and Duration for both Fade In and Fade Out portions of the crossfade. These Fade curves then control the amplitude of the regions as they are faded in or out. By examining the shape of a curve, you can see how the amplitude of a selected region will change during the course of the crossfade.

The following diagram will help you understand how combinations of these curves will affect the overall shape of your crossfade. By superimposing the Fade Out curve of region 1 over the Fade In curve of region 2, you will have a good idea of how the amplitude of each region will be affected during the crossfade.



On the following pages are brief descriptions of some of the Fade Out and Fade In curves you may use in your session:

## Examples of Fade Out Shapes



This curve keeps region 1 at full volume throughout the crossfade and then immediately drops the volume at the very end of the crossfade.



This curve fades out region 1 relatively slowly.



This curve fades out region 1 slightly faster.



This curve fades out region 1 with a linear fade curve. It creates a smooth, even fade out. It is the default curve.



This curve fades out region 1 quickly at the beginning of the crossfade.

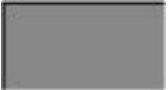


This curve drops the amplitude of region 1 even more quickly at the beginning of the crossfade.



This curve silences region 1 at the beginning of the crossfade.

## Examples of Fade In Shapes



This curve brings up region 2 at full volume immediately at the beginning of the crossfade and keeps it there throughout the crossfade.



This curve fades in region 2 quickly in the beginning, reaching full amplitude fairly early in the crossfade.



This curve fades in region 2 moderately fast.



This curve fades in region 2 with a linear fade curve. It creates a smooth, even fade in. It is the default curve.



This curve fades in region 1 slowly at the beginning of the crossfade.



This curve fades in region 2 even slower than the previous curve.



This curve silences region 2 until the end of the crossfade.

### Some Useful Curve Combinations:

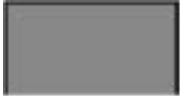
Here are some combinations of Fade Out and Fade In curves that you may wish to try. Some may be more useful than others. Please experiment with other curve combinations and selection types, too.



**Linear Crossfade.** A good general purpose crossfade with a smooth, even transition between region 1 and region 2.



**Equal Power crossfade.** A good general purpose crossfade useful in cases where a linear crossfade seems to create a noticeable drop in volume across the splice point.



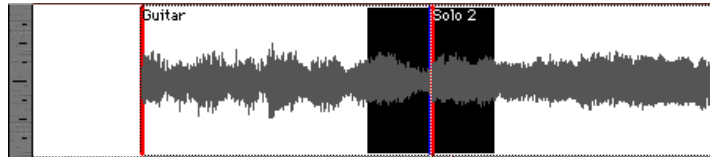
**Overlap Fade.** This combination of curves keeps both regions at full amplitude throughout the crossfade: region 2 “jumps in” at the beginning and region 1 “jumps out” at the end.



**Silence.** Choosing these two curves will create silence for the duration of the crossfade.

### To create a Crossfade between two regions:

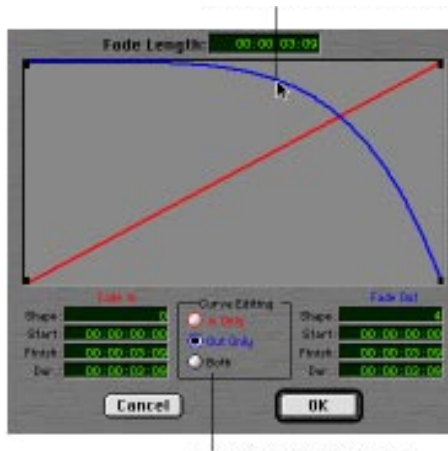
- With the Selector, click at the point where you want the crossfade to begin in the first region, and drag the mouse to where you want it to end in the second region. The two regions must overlap edges or touch in order for Session to generate the crossfade. (However, one of the regions must not extend beyond both ends of the region above, or else the *Fades* command will not be selectable in the Edit menu.)



*Selecting across the boundaries of two adjacent regions to create a crossfade*

- A variety of selection types are possible. Crossfades selections can be perfectly centered around the borders of the two regions or longer in one region than another. Don't be afraid to experiment to get the exact effect you want.
- Release the mouse button.

- From the Edit menu, choose the *Fades* command (Shift-Command-F). The Fades dialog appears prompting you to choose your Fade Out and Fade In curves.
- In the Curve Editing box, selecting *In Only* allows you to choose only the Fade In curve, selecting *Out Only* in the Curve Editing field choose you to edit only the Fade Out curve, and selecting *Both* allows you to choose both Fade In and Out curves in tandem. Select the Curve Editing mode you wish to use.
- Click and drag the Fade In/Out curve(s) to the desired shape.



Selecting a Fade Curve

- If you wish to change the Beginning and End times for the Fade In or Fade Out curves of your crossfade, click and drag the Beginning and End Points of a Fade curve to the desired beginning or end time. You can create a crossfade where one of the Fade portions reacts earlier than the other to its chosen curve.

Click and drag the beginning (or end) point of a Fade curve

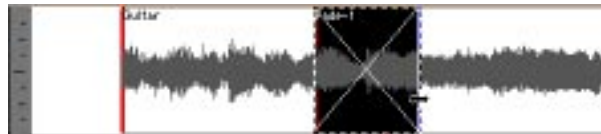


*Dragging the Beginning or End Point of a Fade Curve*

The numeric reference fields in the Fades dialog indicate the overall length of the Fade, as well as individual Shape, Start and Finish Times, and Duration for the Fade In and Fade Out portions of the crossfade.

- Click **OK** to close this dialog.

Session will calculate the crossfade and write it to disk. Crossfades appear in their own *Fades Folder* within the session folder.



*After Session generates the crossfade, it looks like this*



After you have created a crossfade, it is still possible to edit its length by selecting the Fade region with the Grabber and dragging its beginning or end point to shorten or lengthen the crossfade length. Double-clicking the Fade region with the Grabber reopens the Fade dialog, allowing you to reedit the Fade curves, if desired.

**To remove a crossfade:**

- Choose *Undo* from the Edit menu.

OR:

- Select the crossfade with the Grabber and press the Delete key. The crossfade is removed.
- 

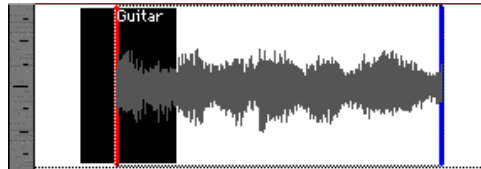
## Creating Fade Ins/Outs

In addition to allowing you to crossfade between two regions, the *Fades* command also lets you create a fade in or fade out at the beginning or end of a region by fading from the exact beginning of the region, fading from a Silence region, or fading from a blank area in a track. The length of your selection in the region will determine the length of the fade in/out.

**To Create a Fade In:**

- Select the beginning of the region(s) that you wish to fade in. The selection must start from the exact beginning of the region, or begin from a Silence region or a blank area in the track.

*USER TIP: Option-Shift-Tab selects audio from a cursor positioned within a region to the beginning of the region. Shift-Tab selects audio from a cursor positioned within a region to the end of the region.*



*To create a Fade in, the region must be preceded by a blank area, a Silence region, or the Fade In selection must begin precisely at the beginning of the region*

- From the Edit menu, choose *Fades*. The Fades dialog appears prompting you to choose your Fade In curve.



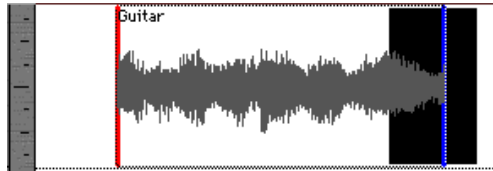
*The Fades dialog when creating a Fade In*

- Click and drag the Fade In curve to the desired shape.

- Release the mouse, and click *OK*. The chosen fade curve will appear in the region.

### To Create a Fade Out:

- Select the end of the region or regions that you wish to fade out. The selection must extend to the exact end of the region, or extend to a Silence region or a blank area in the track.



*To create a Fade out, the region must be followed by a blank area, a Silence region, or the Fade out selection must extend precisely to the end of the region*

- From the Edit menu, choose *Fades*. The Fades dialog appears prompting you to choose your Fade Out curve.



*The Fades dialog when creating a Fade Out*

- Click and drag the Fade Out curve to the desired shape
- Release the mouse, and click *OK*. The chosen fade curve will appear in the region.

After you have used the Fades command to create a Fade In/Out, you can still edit the length of the fade by selecting it with the Grabber and resizing its length. Double-clicking the Fade region with the Grabber reopens the Fade dialog, allowing you to reedit the Fade curve, if desired.

*NOTE: Though fades may appear to be discrete regions they cannot actually be separated from the region(s) in which they were created.*

---

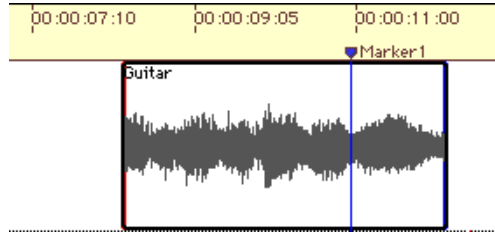
## Using Markers

Session's Markers allow you to define a given location in a track or region as a Marker and then quickly navigate to that point by selecting one of the Transport's location Markers.

Markers can be “dropped on the fly” during playback, or created while editing in conjunction with the Transport. Markers are visible in tracks, so if you select one of the location Markers on the Transport, a blue triangle will appear in the Time Line along with the Marker's name and a blue line extending across the tracks, indicating the Marker's position.

### **To create a Marker during playback:**

- From the Display menu, choose *Markers*. A check next to this item indicates that it is chosen.
- As your session plays back, press the Enter key on the Macintosh keyboard. A Marker will be “dropped” at that point in the track. If there are already Markers in the file, this method will set the next available Marker.



*A track Marker*

If the *Auto Name Markers* command is enabled in the Options menu, Session will automatically name your Markers successively *Marker1*, *Marker2*, *Marker3*, and so on. These are the default names for the *Auto Name Marker* command. A check next to this item indicates that it is enabled.

If you wish to change the naming preferences for the *Auto Name Marker* command to something more specific to your particular session, just do the following:

**To change the *Auto Name Marker* preferences:**

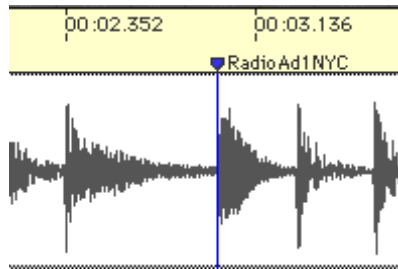
- From the Setup Menu, choose the *Marker Auto Naming* command. The Marker Auto Name Setup window appears.



*The Mark Auto Name Setup*

- In the *Name* field, type the name you would like the *Auto Name Marker* command to use. Try to keep this field short, so your Markers don't get too long and become difficult to read in the Time Line.
- In the *Number* field, type the starting number used to successively number Markers.
- In the *Zeros* field, type the minimum number of digits to appear in Marker number. For example, typing a "2" would mean the Marker number will show at least two digits, so then the first Marker dropped will read *Marker01*.
- In the *Suffix* field, type any additional information you wish to append to the Marker. Remember to keep this field short, so your Markers don't get too long and become difficult to read in the Time Line.
- Click *OK* to close this dialog.

The next time you create a new Marker with the *Auto Name Marker* command enabled in the Options menu, the Marker will bear the *Marker Auto Naming* preferences you just defined. All Markers created before the changed preferences will keep the same names, and you can change the preferences again at any time to create different named series of Markers.



*A track Marker from a customized Auto Name Marker Setup*

If the *Auto Name Markers* command is not enabled in the Options menu, a Marker dialog box will appear. Type the desired name for the Marker, and click *OK* to close the dialog.



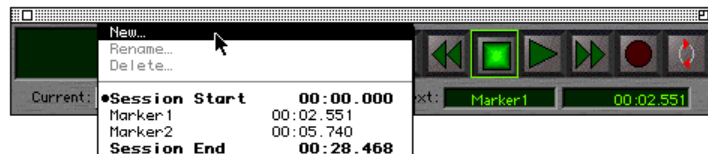
*Naming a Marker*

### **To create a Marker when playback is stopped:**

- From the Display menu, choose *Markers*. A check next to this item indicates that it is chosen.
- Go to the desired location in a track and click with the Selector.
- Press the Enter key on the Macintosh keyboard.

OR:

- On the Transport, click and hold down the Current Marker pop-up. Select *Name...* and release the mouse. (Click the box in the upper right-hand corner of the Transport window to display the entirety of the window, if needed.)

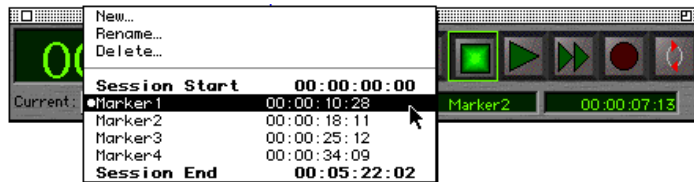


*The Current Marker pop-up menu in the Transport*

- A Marker will be “dropped” at that point in the track.

## To go to a Marker:

- From the Display menu, choose *Markers*. A check next to this item indicates that it is chosen.
- On the Transport, click and hold down the Current Marker pop-up. Select the desired Marker location and release the mouse. (Click the box in the upper right-hand corner of the Transport window to display the entirety of the window, if needed.)



*Selecting a Marker in the Current Marker pop-up*

- The screen will scroll to the selected Marker location. Press the *Play* button on the Transport, and playback will begin at the Marker location.

OR:

- If the Marker is visible in the Time Line, hold down the Command key and Click the Marker. (Choose the *Markers* command from the Display menu to show Markers in the Time Line. A check next to this item indicates that it is chosen.)
- Press the *Play* button on the Transport, and playback will begin at the Marker location.

Here are some other handy key commands to help you navigate around the session:

- **Option-left arrow** or Page Up key takes you to the previous Marker in the session.
- **Option-right arrow**, Page Down key takes you to the next Marker in the session.
- **Option-up arrow** or Home key or Return key takes you to the beginning of the session.
- **Option-down arrow** or End key takes you to the end of the session.



*NOTE: Shift-clicking on a Marker will extend the current selection to that Marker.*

**To move a Marker:**

- From the Display menu, choose *Markers*. A check next to this item indicates that it is chosen.
- In the Time Line, click and drag the Marker to the desired location.
- Release the Mouse. The Marker is moved.

OR:

- In the Time Line, double-click the Marker that you wish to move. A Marker dialog box will appear:



*Typing a new location in the Marker dialog*

- Click with the mouse on the *Location* field, and the outline of the field will turn red. Enter the desired time for the Marker on the key pad of your Macintosh keyboard. This method of moving a Marker allows for accuracy down to a specific frame.
- Click *OK* to close this dialog. The Marker is moved.

**To rename a Marker:**

- From the Display menu, choose *Markers*. A check next to this item indicates that it is chosen.

- In the Time Line, double-click the Marker that you wish to rename. A Marker dialog box will appear.
- Type the new name you wish to give to the Marker.
- Click *OK* to close this dialog. The Marker is renamed.

OR:

- On the Transport, click and hold down the Current Marker pop-up. Select the desired Marker you wish to rename and release the mouse.
- Click and hold down the Marker pop-up once again. Select *Rename...* and release the mouse. A Marker dialog box will appear.
- Type the new name you wish to give to the Marker.
- Click *OK* to close this dialog. The Marker is renamed.

#### **To delete a Marker:**

- From the Display menu, choose *Markers*. A check next to this item indicates that it is chosen.
- In the Time Line, Option-Click the Marker. The Marker is erased.

OR:

- On the Transport, click and hold down the Current Marker pop-up. Select the desired Marker you wish to delete and release the mouse.
- Click and hold down the Marker pop-up once again. Select *Delete...* and release the mouse. The Marker is erased.

---

# QuickTime

---

## QuickTime Requirements

In order to take advantage of Session's QuickTime capabilities you will need the following hardware and software:

- Version 2.0 or higher of Apple's QuickTime system extension (included with your Session system). If QuickTime is not installed, run the Custom Install from your Session installation disks to install QuickTime. If QuickTime is not installed upon launching Session, a dialog will inform you that all movie functions will be disabled.
- Apple's QuickTime PowerPlug system extension, if you are running Session on a Macintosh PowerPC computer.
- QuickTime movie playback and editing software (e.g. Adobe Premiere™, AVID VideoShop™, Macromind Director™, or Apple MoviePlayer™).

Optionally, you may also want:

- QuickTime movie capturing hardware and software to digitize your own movies from a videotape or video camera source.
- An Apple CD-ROM drive running at 2x speed or faster to take advantage of commercially available QuickTime movies and sound clips.
- Apple's CD-ROM software package (included in Apple's System Software 7.5 installation disks and with most commercial CD-ROM drive packages).

## Importing QuickTime Movies

In this section you'll learn how to import a QuickTime movie into your session.

### To import a QuickTime movie into Session:

- Launch Session and create a new session, or open an existing one.
- Check the time code parameters of the session to make sure they match those of the soon-to-be-imported movie and save the session.
- Choose *Import Movie* from the Movie menu. The Import Movie dialog appears:



*The Import Movie dialog*

- Use the directory pop-up menu to locate the desired movie.

When you select a movie in the Import Movie dialog, you can view a preview frame using the *Show Preview* check box. The “preview” is always the first frame of the movie. If you have not yet created a preview, you can do so by first selecting the movie and then clicking *Create* in the Import Movie dialog.

- After locating the movie you want to import, make sure it is selected (highlighted) and click *Open*.

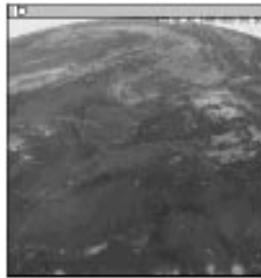
Session will display the movie in its own Movie window, and first frame of the movie will be synchronized to the start time of your session. Here's an example of a session with an imported QuickTime movie displayed the Movie window:



---

## The Movie Window

The Movie window is your movie “screen.” It displays the movie playback or the current frame if playback is paused or stopped. You can center or drag the Movie window anywhere on your computer screen (or screens) and you can resize the Movie window to half or double its initial size at the time of the movie import. You can also enable the Movie window to “float” in the forefront of the screen, allowing the Movie window to remain in constant view even as you call forth and edit in other Session windows. However you configure the Movie window, its current state will be remembered by the session the next time you open it. The Movie window can be shown/hidden via the *Movie* command from the Display menu.



*The Movie window, paused on the first frame of the movie.*

### **To display the Movie window:**

- From the Movie menu, choose the *Movie* command. Assuming a movie has been imported already, the Movie window will open. If the Movie window was hidden behind another window, choosing the *Movie* command will bring it to the front.

### **To resize the Movie window:**

- From the Movie menu, choose one of *Half Size*, *Normal Size*, or *Double Size* commands. The *Normal Size* setting is the default size for the imported movie, and it provides the smoothest playback quality.

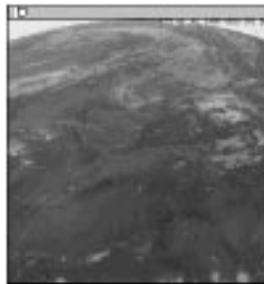
*NOTE: If you wish to further resize the dimensions of the Movie window or modify it in any way, you must return to your video capture/playback environment (e.g. Adobe Premiere) to make the changes, re-save the movie file and re-import it into Session.*

### **To center the Movie window on-screen:**

- From the Movie menu, choose the *Center Movie Window* command. The Movie window will center itself on-screen, and Session will remember its location the next time you launch your session.

### **To move the Movie window anywhere on-screen or to a different screen:**

- Click and hold down the mouse on the Grabber Bar along the top edge of the Movie window.



*The Grabber Bar along the top edge of the Movie window*

- Drag the Movie window anywhere on-screen or to a different screen.

- Release the mouse when you have moved the Movie window to the desired location. Its location will be remembered the next time you launch your session.

### **Floating the Movie Window**

As long as the *Movie Window Floats* command from the Movie menu is enabled, the Movie window will remain in constant view even when you call forth the Edit window. Generally you'll want to leave this command enabled as long as you're editing to picture. If this command is disabled and you click the mouse anywhere on a track, the Movie window will drop back behind the Edit window.

#### **To float the Movie window:**

- From the Movie menu, choose the *Movie Window Floats* command. The Movie window will float in the forefront of the screen. The Movie window will remain in constant view even when you call forth the Edit window. A check next to this menu item indicates that the command is enabled.

#### **To “un-float” the Movie window:**

- From the Movie menu, choose the *Movie Window Floats* command again to disable it. The Movie window will no longer float and will move to the back when the Edit window is called forth. The absence of a check next to this menu item indicates that the command is disabled.



---

# Mixing

---

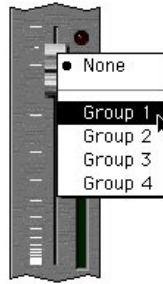
## Grouping Faders and Pans

Before cover creating level and pan automation, it's important that you know about Session's ability to group gain and pan faders. There are many instances in a mixing situation where you need to move several faders at once. For instance, you might wish to control a pair of tracks with instruments or vocals recorded in stereo. It's important to keep such tracks at the same relative level to preserve their stereo balance. If you're using an external MIDI control surface, this is easy enough to do, but if you're not, you're limited to mouse control. With a single mouse, this presents a problem, since your mouse can only move one fader at a time.

Fortunately, Session provides you with a way to link two or more faders and move them as a group. You can create up to four different groups. A simple group could contain a pair of gain faders. A more complex group could include pan controls for several channels, or a collection of several faders to control all of the parts of a drum "submix."

### **To assign gain or pan faders to a group:**

- Hold down the Shift key and click on the fader that you wish to group. The Group pop-up menu appears.



*Assigning a gain fader to a group*

- Select the group (1-4) that you wish to assign to controller to.
- Release the mouse button. The fader is now included in the group that you selected.
- To add other faders to the group, hold down the Shift key and click on another fader that you wish to group. When the Group pop-up menu appears, add this fader to the same group.
- Repeat this process as many times as required to add all of the faders you wish to include in the same group.

Repeat this process as many times as you wish to create up to four different groups. Once you've assigned your group(s), moving any faders within the group will automatically move all faders assigned to that group proportionally.

At times, you will probably want to adjust the level of a grouped controller without affecting the other controllers in the group. This is easy to do.

**To move a grouped controller individually:**

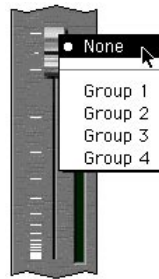
- Hold down the Command key.
- Click a fader or knob and drag it to a new level. Note that the other faders in the group do not move.

- Release the Command key.

The fader will now maintain its new position relative to the other controllers in the group.

### **To remove a controller from a group:**

- Hold down the Shift key and click on the fader that you wish to ungroup. The Group pop-up menu appears.



*Ungrouping a fader*

- Select *None* and release the mouse button. The fader is removed from the group.

---

## **Using Digital Equalization**

Session provides you with two digital equalizers (EQs) per track for enhancing the sonic character of your mix. If you use EQ properly and in moderation, your mixes can be made “punchier,” and instruments and vocals can be brought out of the depths of a mix and given more of an edge. On the other hand, if you overuse EQ or use it improperly, your mix can become distorted.

In general, good use of EQ is more about taking away than it is about adding. While a novice producer will often concentrate only on using EQ to *boost* things, the more experienced producer will focus on using EQ to *cut*—finding frequencies that interfere with the mix and removing them. In reality, judicious use of both cutting and boosting will allow you to achieve the ultimate goal: *giving your mix clarity by carving out different frequency ranges for each instrument in your mix.*

A word to the wise: Human ears are very sensitive to the range between 1kHz and 5kHz. The reason for this is simple: this is the range where human speech falls, thus our ears are naturally tuned to this range. If you want something to really stand out in a mix, put it in this range. However, don't bunch everything up in this range or your mix will sound claustrophobic!

Ideally, if you've been careful in the recording stages of your project, your tracks will need very little EQ at all. If you've used good microphones and paid extra attention to the sound of your instruments before committing them to disk, you won't have to resort to "fixing things in the mix." The best rule of thumb is this: use your EQs when and where you really *need* to. They're great for solving problems or adding a little extra zing to a mix, but in the end, a little extra care during recording is always preferable to fixing things later.

## Types of EQ

Session provides five types of EQs. Each EQ has controls for selecting the *EQ Type*, *Gain* (the amount the frequencies are cut or boosted), *Frequency* (the specific frequency to be cut or boosted), and a *Bypass* button for disabling the EQ. In the case of the parametric EQ, an *EQ Bandwidth* selector is also included (for choosing how wide a range of frequencies will be affected).

- A *Low-Shelf* EQ boosts or cuts frequencies at or below the selected frequency setting.
- A *High-Shelf* EQ boosts or cuts frequencies at or above the selected frequency setting.
- A *Parametric* EQ boosts or cuts only those frequencies centered around the selected frequency setting. A pop-up menu allows you to select the width (from 1/3 to 3 octaves) of the parametric EQ. This determines the width of the filter's overall slope—from a broad "bell" shape to a narrow "notch."

- A *High Pass* EQ filters out frequencies below the selected frequency setting while allowing all others above to pass through.
- A *Low Pass* EQ filters out frequencies above the selected frequency setting while allowing all others below to pass through.

### Auditioning an EQ

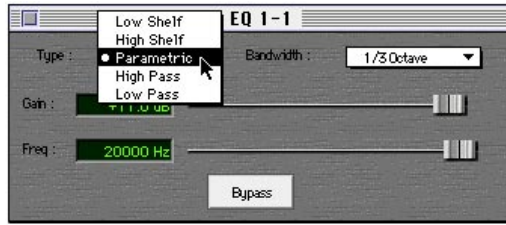
The best way to audition the effect of an EQ is to increase its gain and then drag its frequency up or down until you hear its effect. Then go back and make more precise adjustments the EQ's gain (and width, for the Parametric EQ). Remember that some instruments occupy only a very small frequency range, so you may need to fine tune the EQ's frequency range to hear its effect on your track. Don't switch EQ types while you are recording or playing audio or you may get unpleasant pop and clicks. You can use two EQs on a track if you wish to achieve a more specialized tonal effect.



*Click on a track's EQ button to make the EQ editor appear.  
Click on a track's EQ LED to enable (or disable) the EQ.*



*Clicking an EQ button makes the EQ editor appear (Parametric EQ is currently selected)*



*Choosing an EQ type from the EQ Type pop-up menu*

### **To apply EQ to a track:**

- Open the Mix window by pressing Command-M.
- Click the green EQ LED on the desired track to enable the EQ. When the LED is lit, it indicates that the EQ is on.
- Click the white EQ button to open the EQ Editor.
- From the pop-up menu, select the EQ type that you wish to use.
- Click *Play* on the Transport to begin audio playback.
- Adjust the parameters of the EQ you have chosen to achieve the desired result. By clicking the *Bypass* button you can compare the sound of the track with and without EQ.
- Repeat as necessary if you wish to add a second EQ to a track.

### **To disable EQ on a track:**

- Click the green EQ LED (either 1 or 2, depending on which you wish to disable) on the desired track. When the LED is dimmed, it indicates that the EQ is off.

Session EQs are for playback only and are nondestructive. Currently, Session does not allow you to add EQ to a signal *input*, to record the effect of your EQ onto the take.

---

## Recording and Editing Mix Automation

Automated mixing technology has become a standard feature of many professional recording systems. Automation greatly enhances the mixdown process by allowing you to perform your mix in real time—including fader movements, panning, and so on—while recording it all, much like a MIDI sequencer records MIDI performance data.

Session Software provides you with a means of automating your final mixdown too, by allowing you to record and edit *Gain* and *Pan* automation using playlists, just as you learned to do with audio. Using your mouse or an external fader controller to perform the mix, you can build it up in stages, and when it comes time to create the “master” of your final mixdown, you can be assured of having exactly the same mix every time. In addition, you have access to Session’s editing functions, making Session’s automation an extremely powerful tool for creating a polished final mixdown.

### Gain and Pan Automation Are Independent

Because Session treats Gain and Pan automation separately, they can be both recorded and edited separately. Thus, recording an automation pass in which you move only Pan sliders will not record over any Gain automation, or vice-versa. In addition, if you record Gain automation for a track that has been *grouped* to other tracks, the automation data will be recorded to all tracks in that group.

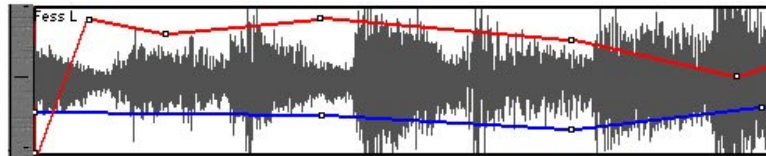
### To record fader automation on a track:

- Click the automation record-enable button (the **A** button) on the track that you wish to automate. The button turns red, indicating that automation is record-enabled.
- A dialog appears prompting you to name a playlist for recording automation.
- Enter a name for the automation playlist and click *OK*.
- When you’re ready to begin, click *Play* or press the Space bar. (It isn’t necessary to press *Record* to initiate automation recording.)

- Automation recording begins. Move the faders as you wish. When you've finished, click *Stop* or press the Space bar again.

### To listen to your automation:

- Turn off automation record-enable (the **A** button) so that you don't accidentally record over your previous pass! This is very important since you can record automation with just *Playback* engaged. (Remember, it isn't necessary to press *Record* to initiate automation recording.)
- Click *Return to Zero* and then *Play* on the Transport to listen to your automation.
- If you like what you've recorded, make sure to save it by choosing the *Save Session* command in the File menu.
- Follow the same procedure to record additional automation. Remember, recording an automation pass in which you move only Pan sliders will not record over any Gain automation, or vice-versa.



Automation appears as "breakpoint" lines. One line represents Gain automation (in red). The other represents Pan automation (in blue)

Automation data can be edited in much the same way audio can. However, to edit this data, you must go to the Edit window and use the *Gain Automation* and *Pan Automation* commands (in the Display menu) to view the track's Gain and/or Pan automation. For more information about editing automation, see the section that follows this.



## IMPORTANT

On slower models of Macintosh computers, Session's faders may appear to move in a sluggish or "chunky" manner during playback and recording. If the faders seem to jump from position to position don't worry. This occurs because Session's audio tasks take precedence over the screen display. This sluggish movement doesn't affect mix automation and it is not reflected in the audio playback. If you find this distracting, you may wish to turn off the *Moving Faders* option (in the Options menu). This will also improve Session performance.

### Creating Different Versions of Your Mix with Automation Playlists

Because Session's Automation tracks utilize playlists, you can create several different versions of your mix by recording different automation on different playlists. This is as simple as creating a new playlist and performing new automation. Once you have created several different versions of your mix, you can select the best one from among these playlists.

#### To create a new automation playlist:

- Click the Automation Playlist pop-up on the desired track and select *New*.



*Creating a new automation playlist*

- A dialog appears prompting you to name the new playlist. Enter a name and click *OK*.

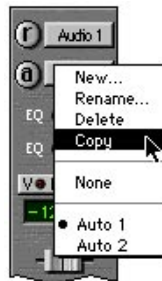
- Record the new automation pass as desired.
- Later, if you wish to switch to a different playlist, click the Playlist pop-up and choose the one you desire.

### Copying Automation from One Playlist to Another

It's often useful to have the same automation on more than one track. This is particularly useful in the case of instruments recorded in stereo, where it's good to keep gain automation the same between the right and left channels of the stereo signal.

#### To copy automation from one playlist to another:

- On the track you wish to copy the playlist *from*, choose *Copy* from the Playlist Selector pop-up. Session copies the playlist that is currently active on this track and adds it to the list of playlists, appending the word “copy” to its name.



*The Copy command copies the currently active playlist*

- On the track you wish to copy the Playlist *to*, click the playlist selector pop-up and select the copied playlist. You now have the same automation active on both tracks.



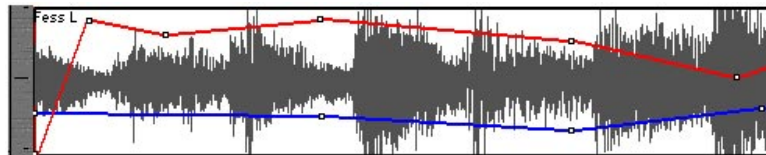
*Selecting a copied playlist*

---

## Editing Automation

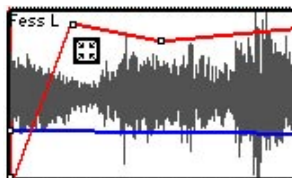
No matter how skilled you are at mixing, it's inevitable that you'll want to fine tune your automation using Session's editing tools. As you learned earlier, Session treats Gain and Pan automation separately. Thus they can be both recorded and edited separately. If you examine your automation in the Edit window you will see that Session displays automation as a breakpoint-style line graph. Gain automation is represented by a *red* line. Pan automation is represented by a blue line. To edit automation, simply click on a point on the appropriate line and drag it to the desired location. The cursor will change its appearance depending on whether you are editing an existing automation point or creating a new one. As you move the breakpoint line, the meter data indicator on the track will indicate changes made to gain value (in dB) or changes made to the pan value.

- Dragging the Gain breakpoint line upwards increases gain. Dragging it downwards decreases gain.
- Dragging the Pan breakpoint line upwards pans left. Dragging it downwards pans right.

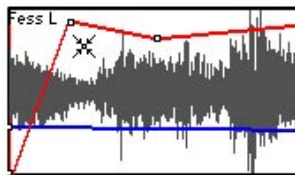


*Automation appears as "breakpoint" lines. One line represents Gain automation (in red) and another represents Pan automation (in blue)*

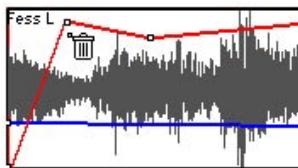
As noted above, you will see the cursor change its appearance depending on whether you are editing an existing breakpoint, creating a new breakpoint, deleting a breakpoint, or performing any of the above functions on multiple breakpoints within a selection. Here is a visual guide to how the cursor appears in each of these cases:



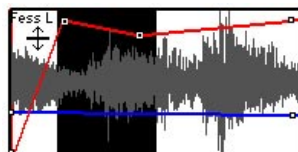
*The cursor looks like this if you are moving an existing breakpoint.*



*The cursor looks like this if you are creating a new breakpoint.*



*The cursor looks like this if you are deleting a breakpoint.*



*The cursor looks like this if you are moving multiple breakpoints within a selection.*

### **To view automation data:**

- Open the Edit window by pressing Command-E on your keyboard.
- To view Gain automation, choose *Gain Automation* from the Display menu. Gain automation is represented by the red breakpoint line.
- To view Pan automation, choose *Pan Automation* from the Display menu. Pan automation is represented by the blue breakpoint line.

### **To hide automation data:**

- To hide Gain automation, choose *Gain Automation* from the Display menu a second time.
- To hide Pan automation, choose *Pan Automation* from the Display menu a second time.

### **To move an existing automation point on the breakpoint line:**

- Place the cursor over the automation point you wish to move. Click on the automation point and drag it to the desired position.
- To constrain movement up/down or right/left, hold down the Shift key while you drag.

### **To add a new automation point to the breakpoint line:**

- Click on the breakpoint line, and without releasing the mouse button, drag the new point to the desired position.

### **To move several automation points on the breakpoint line at once:**

- Use the Selector to select the portion of the track containing the automation points you wish to move. (To toggle to the Selector, press the X key on your keyboard.)
- Use the Grabber to drag any of the automation points within the selected range to the desired position. Session moves all of the points proportionally. (To toggle to the Grabber, press the C key on your keyboard.)
- If you wish to move the selected points *without affecting the slope of the breakpoint line outside the selection*, enable the *Smart Breakpoints* option in the Options menu. This creates new breakpoints on both sides of the selection, preventing your edit from affecting the breakpoint slope outside the selection range.

### **To move a single automation point within a selected range:**

- Hold down the Command key and use the Grabber to drag the automation point within the selected range to the desired position. As long as the Command key is depressed, Session will allow you to select a single automation point.

**To delete an automation point:**

- Hold down the Option key and click on the automation point. The automation point is deleted.

**To delete several automation points:**

- Use the Selector to select the portion of the track containing the automation points you wish to delete. (To toggle to the Selector, press the X key on your keyboard.)
- Switch to the Grabber (press the C key on your keyboard).
- Hold down the Option key and click on any of the automation points within the selected range. Session deletes all of the points within the selection.

**To delete all automation points in a track:**

- Double-click the Selector in the desired track. The entire range of the track is selected.
- Hold down the Option key and click on any automation point. All automation points in the track are deleted.

---

# Session Menus

## The File Menu

File	
New Session	⌘N
Open Session...	⌘O
Close Window	⌘W
Close Session	⇧⌘W
Save Session	⌘S
Save Session As...	⇧⌘S
Save a Copy In...	⇧⌘S
Add Audio File...	⇧⌘O
Import Audio File...	⇧⌘O
Bounce Tracks...	⇧⌘B
Delete Audio File(s)...	
Calc All Waveforms	⌘Y
Calc Selected Waveforms	⇧⌘Y
Quit	⌘Q

The File menu contains all of the commands you'll use to create and maintain your audio files. Here are brief explanations of each.

### New Session

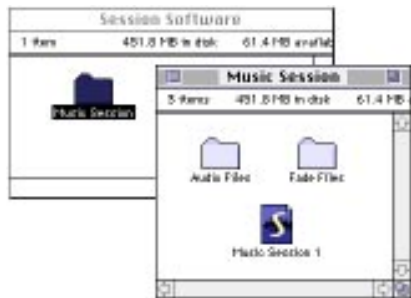
The *New Session* command creates a new session. When you select the *New Session* command, a dialog box appears prompting you to give the new session a name. When you name the session, Session creates a folder of the same name. Within this folder is the *session* file itself, and two other folders: an *Audio Files* folder, and a *Fade Files* folder. The Audio Files folder contains all audio recorded during the session. The Fade Files folder contains any crossfaded audio data



generated by the session. When you record a new audio track, the track is saved as a new audio file and automatically placed in the *Audio Files* folder. At any time in a session, you also have the ability to import *existing* audio files (in a variety of formats) into the session, and work with them as well.



*The New Session dialog*



*A new session*

## Open Session

The *Open Session* command lets you open a previously created session. When you select this command, a file dialog appears from which you will navigate to and open the desired session. All sound files and crossfades associated with the session will load. Only one session can be open at a time.



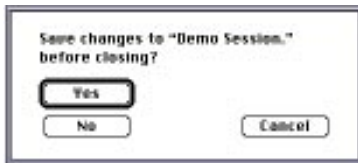
*The Open Session dialog*

## Close Window

The *Close* command closes the currently active window without quitting Session.

## Close Session

The *Close Session* command closes the current session. Because Session Software can have just one session open at a time, you must close the current session before you can open another. Before closing the session, Session Software will ask you if you wish to save any changes that have not been saved.



*The Close Session dialog*

## Save Session

The *Save Session* command saves the changes you have made since the last time you saved and writes the session in its current form over the old version. You cannot undo the *Save Session* command.

## Save Session As...

Session's *Save Session As...* command is useful for saving a copy of the current session under a different name, or in a different hard disk location. Because the *Save Session As...* command closes the current Session and lets you keep working on the renamed copy, it is particularly useful if you are experimenting and want to save successive stages of the Session. This way, you can save each major step under a different name such as "Music Session 1.0", "Music Session 1.1", etc. By working this way, you'll always have the option of retracing your steps should you want to go back to an earlier version.



The Save Session As dialog

## Save a Copy In...

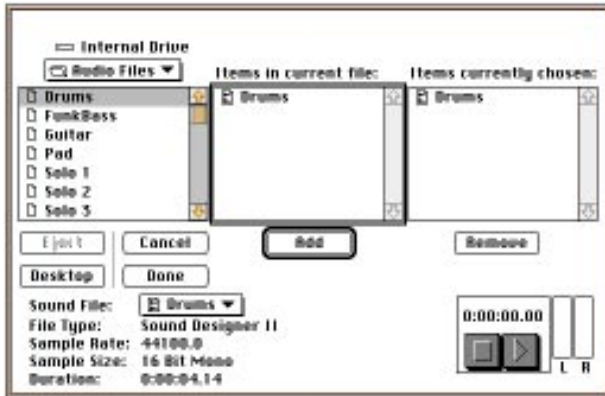
Use the *Save a Copy In...* command to save a copy of the current session under a different name or a different hard disk location. Unlike the *Save Session As...* command, *Save a Copy in...* does not close the original session, so subsequent edits are made to the original session. Having the backup copy gives you the option of reverting to the earlier version.



The Save a Copy In dialog

## Add Audio File

This command allows you to load one or more monophonic Sound Designer II format files into the Audio Regions List. When you choose this command, a file dialog appears allowing you to navigate to the desired audio file. When you've found the file, click on it and it will appear in the *items in current file* list inside of the dialog. When you double-click on an audio file, it is added to the *items currently chosen* list at the right of the dialog. When you have finished choosing all of the files you wish to add, click *Done* and Session will find and import all of these audio files into the Audio Regions List. The *Play* button at the bottom of this dialog allows you to audition an audio file before you load it into a session.



The Add Audio File dialog

## Import Audio File

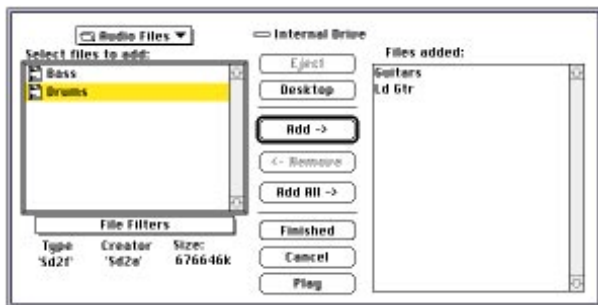
This command allows you to import audio files that are in formats other than Sound Designer II mono (Session's audio file format). Supported file formats are: Sound Designer II stereo, AIFF, .WAV and Sound Resource (SND). (If you wish to import a QuickTime-format audio file, use the

*Import Other Movie Audio* command in the Movie menu.) Like the *Add Audio* command, the *Import Audio File* command adds the imported files to the Audio Regions List from where they can be dragged into tracks. Importing sound files in non-Sound Designer II mono formats requires both time and hard disk space because the file must be converted to Sound Designer II mono files. If the file to be imported is a stereo file, the left and right channels will be loaded individually into the Audio Regions List.

When you choose this command, a file dialog appears allowing you to navigate to the desired audio file. The *File Filters* pop-up at the bottom of this dialog allows you to select the types of files Session “sees” when you navigate on your hard drive. When you’ve found the file, double-click on it and it will appear in the *files added* list inside of the dialog. When you have finished choosing all of the files you wish to import, click *Finished* and Session will import all of these audio files into the Audio Regions List.

When you click on an audio file’s name in this dialog, information appears about the sample rate of the file. The *Play* button allows you to audition a file before you load it into a session.

The *Sample Rate Converter Quality* command affects the quality of sample rate conversion that occurs when importing sound files not originally recorded at your session’s current sample rate. The higher the quality of sample rate conversion that you choose, the longer Session will take to perform the sample rate conversion. Be aware that even the “low” setting provides results that are considerably better than the Macintoshes built-in sample rate conversion. For most applications, the “medium” setting will yield very good results. Because the “high” setting takes *significantly* longer than any other setting, we recommend that you use it only in cases where the highest fidelity is absolutely essential and you have a considerable amount of time to devote to this process. (The *high* setting can take as long as several hours to process a soundfile of moderate length.) Please also be aware that sample rate conversion is optimized for Power Macintoshes. Non-Power Macs can take an extremely long time to perform this function, especially at higher quality settings.



## Bounce Tracks

The *Bounce Tracks* command allows you to mix together the outputs of all currently audible tracks to create a new audio file. The new “bounced” audio file (or files if you bounce to a *split stereo* file) then appears in the Audio Regions List, from where it can be dragged into a track. When you bounce a file, you can save it as one of three file types: a *Mono* file, a *Split Stereo* file, or an interleaved *Stereo* file, in either 16-bit, or 8-bit resolution. With this function, “what you hear is what you get.” In other words, when you play back your session, all tracks that are heard are included in the bounce. Any tracks that are muted will not appear in the bounce. If you have made a selection in a track (or tracks) Session will bounce *only the tracks in which the selection appears, for the length of the selection*. If there is no selection in any track, Session will bounce all audible tracks for the length of the longest audible track in the session.

The *Sample Rate Converter Quality* command (Options menu) affects the quality of sample rate conversion that occurs when bouncing to a sample rate other than your session’s current sample rate. The higher the quality of sample rate conversion that you choose, the longer Session will take to perform the sample rate conversion. Be aware that even the “low” setting provides results that are considerably better than the Macintoshes built-in sample rate conversion. For most applications, the “medium” setting will yield very good results. Because the “high” setting takes *significantly* longer than any other setting, we recommend that you use it only in cases where the highest fidelity is absolutely essential and you have a considerable amount of time to devote to this process. (The *high* setting can take as long as several hours to process a soundfile of moderate length.) Please also be aware that sample rate conversion is optimized for Power

Macintoshes. Non-Power Macs can take an extremely long time to perform this function, especially at higher quality settings.

The *8-bit Squeezed* option in this dialog uses a proprietary DSP algorithm specifically designed for performing 8-bit conversion. It greatly optimizes the dynamics of the audio by preprocessing it using compression, limiting and gating before conversion to 8-bit resolution. This results in much greater apparent loudness in the signal, improved intelligibility, and above all, avoids problems that can typically make converted low-level signals sound “grungy.” If you are converting 16-bit audio to 8-bit resolution, we recommend that you use this option for optimal results.

The *8-bit Rounded* option converts a 16-bit signal to 8-bits by rounding off the extra bits (not *truncating* them). This provides approximately 3dB better signal-to-noise ratio than some other 8-bit conversion schemes which merely truncate the extra bits. If your audio material consists of just dialog with few or no breaks, or is very consistent in its dynamics (without wide variations in volume), you may wish to use this option for converting to 8-bit. Otherwise, use the *8-bit Squeezed* option, explained above.

The *Scaling* option prevents clipping in your bounced signal. Generally you should only enable this option if your source material is so loud that it clips your outputs during playback. If clipping isn’t a problem, leave this option off for best sonic results.



The Bounce Tracks dialog

### Delete Audio File(s)

This command allows you to permanently erase an audio file from your hard disk. To use this command you must first select a “whole file” region by clicking its name in the Regions List and then choosing this command. *Session will not allow you to remove a soundfile if it is being used in any track/playlist in a session—even if the playlist is not currently loaded onto a track.* Because it can be used to *permanently erase* audio data from your hard disk, this command should be used with caution! In order to delete a “whole file” region you must first remove all sub regions created from it in the Audio Regions List.

### Calc All Waveforms

This command creates a waveform view for all sound files and regions in the current session so that they can be viewed and edited graphically. When you record a take, it has no waveform overview associated with it until you use this command or the *Calc Selected Waveforms* command to make Session create the waveform data for it.

### Calc Selected Waveforms

Like the *Calculate All Waveforms* command, this command creates waveform overview data for sound files and regions. The difference is that this command can be used to create waveform overview data for a *specific* soundfile or region. To use this command, simply click on one or more regions in a track with the Grabber and choose *Calculate Selected Waveforms*. Session will then create the waveform overview data. The region can then be viewed and edited graphically.

### Quit

The Quit command ends your session and returns you to the Finder. Although Session will warn you before allowing you to quit without saving changes, it's still a good idea to save your work before quitting.



---

## The Edit Menu

⌘Z	
Undo	⌘Z
Cut	⌘H
Copy	⌘C
Paste	⌘V
Clear	
Select	⌘A
Trim	⌘T
Send To Back	⌘[
Bring To Front	⌘]
Make New Region(s)	⌘N
Make New Selected Region	⌘N
Delete Region(s)	⌘D
Separate Region	⌘S
Duplicate	⌘D
Redo...	⌘Y
Identify Sync Point	⌘I
Delete Sync Point	
Identify Bar & Bar	⌘I
Delete Bar/Bar Marker	
Set User Sync	⌘U
Resync To User Time	⌘U
Resync To Record Time	⌘U

The Edit menu contains all of Apple’s standard edit commands, as well as a several region editing commands. As you remember, Session performs *nondestructive* editing, meaning that the commands in this menu won’t actually alter your source files. Here are brief explanations of each command in the Edit menu:

### Undo

The *Undo* command is a very useful tool and something of a “safety valve.” It keeps track of your last action and allows you to undo that action if you don’t like the outcome. After you undo something, you can “redo” it by choosing the command again. This is a convenient way to compare before and after states of most edits. But be aware that the *Undo* command only keeps track of your *last* action, so use it with care—edits more than one step back cannot be undone.

**Cut**

With the *Cut* command you can “cut” a selected region out of its current position in a track. The Macintosh holds it on the Clipboard (the Mac’s internal memory) in case you want to paste it elsewhere. Of course, since Session is nondestructive, you aren’t actually cutting data from the original file, but the effect is the same.

**Copy**

The *Copy* command is much like the *Cut* command, but instead of removing the selected region, it leaves the original, and makes a copy of it in the Macintosh’s Clipboard so that you can paste it elsewhere.

**Paste**

With the Paste command, you can insert the contents of the Clipboard into a location that you have chosen with the Selector. It is only possible to paste data after it has been cut or copied to the Clipboard.

**Clear**

The *Clear* command allows you to remove a selected region from its location in a track. Of course, since Session is nondestructive, this command doesn’t actually remove the data from the original audio file.

**Select**

This command has three subcommands which allow you to make a selection of a specific type, each of which is covered below.

**Left of Current**

This command selects all regions to the left of a selected region or the playback cursor’s current location on one or more tracks.

**Right of Current**

This command selects all regions to the right of a selected region or the playback cursor’s current location on one or more tracks.

## **All**

As its name suggests, this command selects all sound files and regions in all tracks in the session.

## **Trim**

This command has two subcommands which allow you to trim a selection in a specific way, as explained below. To trim a selection, you must first click the Selector at the desired location in a track, and then select one of the following commands:

### **Trim Start to Cursor**

This command trims the start of the region to the Selection cursor's current location on one or more tracks.

### **Trim End to Cursor**

This command trims the end of the region to the Selection cursor's current location on one or more tracks.

## **Send to Back**

This command moves a selected region *behind* any regions that it overlaps.

## **Bring to Front**

This command moves a selected region *in front* of any regions that overlap it.

## **Make New Region(s)**

This command defines a selection as a new region. The new region then appears in the Audio Regions List, and in the track where it was defined, where it overlaps the original soundfile from which it came. In contrast, regions created with the *Separate Region* command behave as if they were “cut out” from the track: if you move the region, it will leave a hole in the track.

### **Make New Silence Region(s)**

This command defines a selection on one or more tracks as silence by automatically creating a new silence region of the exact duration as the selection. To use this feature, simply make a selection within a track with the Selector and choose *Make New Silence region(s)*. A new silence region then appears in the track where the selection was made. This command is very useful for muting playback of specific portions of tracks.

### **Delete Region(s)**

This command will remove a region from the current session. Audio will not be permanently deleted from your hard drive, however, the *region definition* will be removed from the session. To delete a region, click on its name in the Regions List and select *Delete Region(s)*. If the region is used anywhere in the current session (in other words, if it is currently in a track) Session will not allow you to delete it. If you wish to delete a region that is currently in a track, remove the region from the track first (select it and press the Delete key on your Mac keyboard).

### **Separate Region**

The *Separate Region* command defines a selection as new region, and in the process, *separates* it from adjacent data in the track where it was created. The newly created region then appears in the track and in the Audio Regions List. If you move a separated region from its original location, it will leave a “hole” in the track.

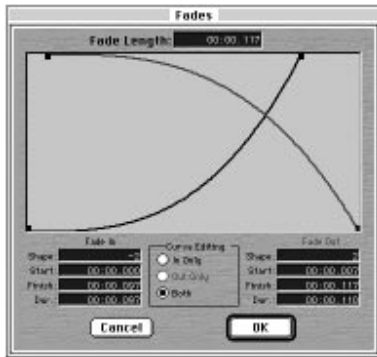
### **Duplicate**

The *Duplicate* command copies a selection and places it immediately after the end of the original region in a track. This provides you with a very handy way of repeating a region (to create a drum loop, a repeating bass figure, etc.) and is faster and more convenient than copying and pasting data to achieve the same result—particularly if you want to duplicate data on multiple tracks.

### **Fades**

The *Fades* command allows you to create a user-definable crossfade between adjacent regions or a fade in/out of a single region. This command is useful for smoothing transitions between regions that would otherwise sound too abrupt. Crossfade duration, position, and shape are all

user-selectable. This dialog allows you to click and drag the crossfade curves to create the shape that you desire. You can individually adjust the start or end of the Fade In/Fade Out points by dragging them as well. To create a crossfade, use the Selector to select across adjacent regions and choose the *Fades* command. In the *Fades* dialog, arrange the crossfade curves as you wish, click *OK* and Session will create a crossfade between the adjacent regions. To remove a crossfade, select it with the Grabber and press the Delete key on your Macintosh keyboard. To edit an existing crossfade, double click it with the Grabber and the Fades editor will appear, allowing you to adjust the crossfade curves as you desire.



*The Fades dialog*

## Identify Sync Point

This command allows you to identify a specific point within a region that can be used to align the region in Session's Grid mode. This is done by clicking the Selector at the desired location inside the region and choosing this command. A small triangle appears in a region to indicate the location of the Sync Point. This then becomes the point at which the region will line up on Session's "grid" in Grid mode.

## Delete Sync Point

This command allows you to remove a Sync Point from a region. This is done by clicking the region with the Grabber to select it, and choosing *Delete Sync Point*. The Sync Point is then removed from the region.

## Identify Bar/Beat

This command allows you to identify and mark where beats fall in a track in order to display time in Bars and Beats. You must identify at least two reference beats from which Session can interpolate the Bars & Beats Time Scale. To identify a Bar and Beat, click the Selector in a track and select *Identify Bar & Beat*. A dialog appears asking you to enter the Bar and Beat values for the location that you have identified. Session then interpolates a Time Line for the rest of the recording based on the values that you entered. By using the Selector to select a range, you can also identify Bar and Beat values for the beginning and end of the selected range. Session supports changes in meter, too. If you wish to mark a meter change, create a new beat marker or double-click an existing one and type in the new meter value. Session will recalculate all subsequent bars at the new meter. If your recording has tempo changes, you should identify several locations in the song and create Bar & Beat markers for them so that the time line that Session calculates will be more accurate. You can drag Bar/Beat markers in tracks to adjust their location. In order to see Bar/Beat markers, you must choose *Bars and Beats* from the Display menu to display the Time Line in this format.



The Identify Bar/Beat dialog

### **Delete Bar/Beat Marker**

This command allows you to remove a Bar/Beat marker in a track. To do this, click on a Bar/Beat marker in the Time Line with the Grabber. It turns white, indicating that it is selected. Then choose *Delete Bar/Beat Marker* from the Edit menu and the marker is deleted.

### **Set User Sync**

This command allows you to select a region (or regions) and redefine its “user time stamp.” Session software has the ability to store *two* time stamp values for a region: a *Record Time Stamp* (the time location at which the soundfile or region was originally recorded) and a *User Time Stamp* (a user-assignable time location). To stamp a user time on a region, move it to the desired location in a track, select it with the Grabber and choose *Set User Sync*. The current time location is then stamped on the region (the region’s start point). If the region is later moved, it’s easy to “resync” it to the user time location by simply selecting it with the Grabber and choosing *ReSync to User Time*.

### **ReSync to User Time**

This command allows you to select a region (or regions) and move it to a time location in a track that you earlier defined with the *Set User Sync* command (see above). If you select multiple regions and choose *ReSync to User Time*, Session will find the region that is earliest in time (among the ones that are currently selected), move that region to the time location that you earlier defined time, and move the other regions relative to it.

### **ReSync to Record Time**

This command allows you to select a region (or regions) and move it to its originally recorded time location in a track. Because Session saves the original time stamp as part of the session, you can recall a region’s original record time whenever you choose to do so. If you have spotted the region to a different time and wish to move it to its *original* time location, simply select it with the Grabber and choose the *ReSync to Record Time* command.

## The Options Menu



This menu contains commands several Session functions that can be toggled on or off.

### Pre/Post Roll Playback

Choosing this option allows you to toggle Session's Pre/Post-Roll feature on or off. By selecting the *Pre/Post-Roll* command in the Setup menu and entering a specific amount of Pre- and Post-Roll time, you can adjust playback of a selection to begin before and last until after your selection by a chosen amount. With this feature you can audition a selection *and* the data just before and after it to hear it in context.

### Loop Selection

Session gives you the option of being able to continuously loop playback of a selection with the *Loop Selection* command. This option will make your selection play in loop fashion until you stop playback. This “auto loop” feature is especially useful in cases where you need to test the rhythmic integrity of your selection before defining that selection as a region. If your selection seems to maintain a consistent rhythm as it loops, it is “musical.” That is, it will probably work rhythmically when placed next to other regions. If the selection seems to skip as the loop repeats, you may wish to adjust your selection. A selection must be at least 0.5 seconds in length for the loop function to work.



### **Insertion Chases Playback**

When this option is enabled, Session's cursor will automatically be placed where playback stops. This feature is very helpful for pinpointing specific spots for editing in long regions.

### **Power Scroll**

Enabling this command causes the screen to scroll by continuously in the Edit window as playback progresses. The screen cursor remains centered in the display.

### **Page Scrolling**

Enabling this command causes the screen to scroll in the Edit window each time the cursor reaches the edge of the waveform display.

### **Moving Faders**

Enabling this command causes Session's on-screen faders to move if automation has been recorded for them. When this option is disabled, automation will still operate, but on-screens faders won't move. Turning this option off can help speed up screen redraws and take some of the burden off of your computer's processor if you are using an older model Macintosh.

### **Auto Name Markers**

When this option is enabled, Session will give markers dropped "on the fly" default names based on the preferences you have entered in the *Marker Auto Naming* dialog (Setup menu). If you wish, You can rename Markers at your convenience later. When this option is disabled, Session will prompt you to name Markers as they are created.

### **Smart Breakpoints**

The *Smart Breakpoints* option allows you to edit a selected automation range without affecting anything outside of that range by creating new breakpoints on both sides of the selection. The new breakpoints on either side of the selection effectively prevent edits performed on the selected range from affecting the breakpoint slope outside the selected range.

### View At Waveform Scale

Enabling this command helps you maximize screen redraw speed in the Edit window and increases performance of the Page Scrolling and Power Scrolling features. It does this by zooming your view to the magnification at which Session calculated the waveform display for the tracks in your session. By doing this, Session eliminates the need to read from hard disk in order to display waveforms of your tracks. (Reading from disk slows screen redraw speed dramatically.) If you zoom in any farther than the “Waveform Scale” level, Session must read data from disk in order to draw the waveforms. In essence, this option enables you to see as much as you can and still be able to scroll as quickly as possible.

### Auto Calculate Waveforms

Enabling this command causes Session to automatically calculate waveform display data for a soundfile when you record new audio. This saves you the trouble of manually choosing the *Calc All Waveforms* or *Calc Selected Waveform* commands in order to see a waveform display for a newly recorded take.

### Sample Rate Converter Quality

This command allows you to choose the quality of Session’s sample rate conversion. There are five possible settings ranging from “low” to “high.” The setting that you choose will affect the quality of sample rate conversion that occurs both during bouncing *and* when importing sound files not originally recorded at your session’s current sample rate. The higher the quality of sample rate conversion that you choose, the longer Session will take to perform the conversion. Be aware that even the “low” setting provides results that are considerably better than the Mac’s built-in sample rate conversion. For most applications, the “medium” setting will yield very good results. Because the “high” setting takes *significantly* longer than other settings, we recommend that you use it only in cases where the highest fidelity is absolutely essential and you have a considerable amount of time to devote to this process. (The *high* setting can take as long as several hours to process a soundfile of moderate length.) Please also be aware that sample rate conversion is optimized for Power Macintoshes. Non-Power Macs can take an extremely long time to perform this function, especially at higher quality settings.

## Online

This command puts Session on-line so that playback or recording can be triggered by an external time code source. In this state, Session waits for a specific SMPTE frame number, and when it sees that frame number, it will begin audio playback.

## Active in Background

This command allows Session to operate in the background with another application. This allows you to integrate MIDI sequencing program such as Vision, Cubase, or Logic Audio with Session.

---

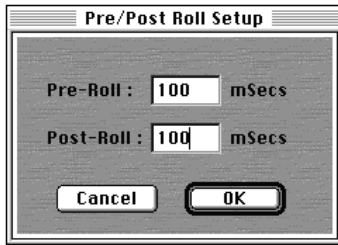
## The Setup Menu



This menu allows you to configure various hardware and software parameters of your Session system.

## Pre/Post-Roll Setup

By selecting the *Pre/Post-Roll* command and entering a specific amount of Pre- and Post Roll time, you can adjust playback of a selection to begin before and last until after your selection by a chosen amount. With this feature you can audition a selection *and* the data just before and after it to hear it in context. For reference, 1000 milliseconds equals one second. 500 milliseconds equals 1/2 second.



*The Pre/Post Roll Setup dialog*

### **OMS MIDI Setup**

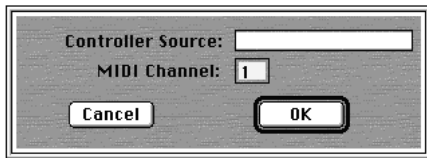
This dialog allows you to configure several parameters of your OMS MIDI setup in order to use MIDI devices such as Macintosh MIDI sequencers and external MIDI controllers with your Session system. In order to use this command, you must already have installed OMS and the OMS IAC driver in your System. Your Session Installer disks allow you to do this.

### **Launch OMS Studio Setup**

This command launches the *OMS Studio Setup* application and allows you to configure your OMS Setup, add MIDI devices, and connect them to your MIDI Interface so that they will be available in Session. OMS must be installed in your system in order for this command to be available.

### **MIDI Controller Mapping**

This dialog allows you to configure parameters for using a MIDI devices to control Session's on-screen faders. You will choose a *Controller Source* and a *MIDI Channel* over which to send MIDI messages to Session.

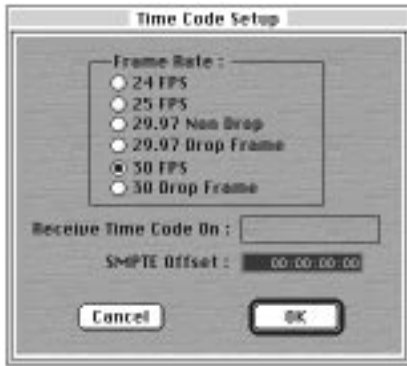


*The MIDI Controller Mapping dialog*

## Time Code Setup

This command allows you to select the SMPTE format appropriate to your project. Session supports the following frame rates: 24 frame, for film, 25 frame for PAL/SECAM video, 29.97 for NTSC color video, 29.97 drop for wall-clock accurate broadcast NTSC color video, and 30 frame/30-drop frame formats that are generally used only for time stamping synchronization in audio-only applications. Make sure that you know *without a doubt* which of these formats your project requires before you begin your session. A little extra care up front is always preferable to hours spent redoing work later.

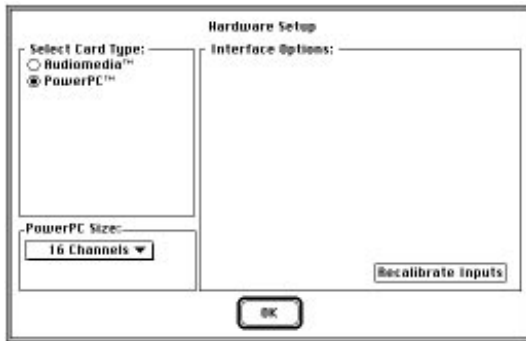
The *Time Code Setup* dialog also provides other SMPTE synchronization-related options. These include the *Receive Time Code On* parameter which allows you to choose the MIDI port on which you will receive MIDI Time Code, and *SMPTE Offset* which allows you to specify a SMPTE “zero frame” reference for your session. Upon receipt of this frame number, Session will chase to the correct point and begin playback of digital audio and MIDI.



*The Time Code Setup dialog*

## Hardware Setup

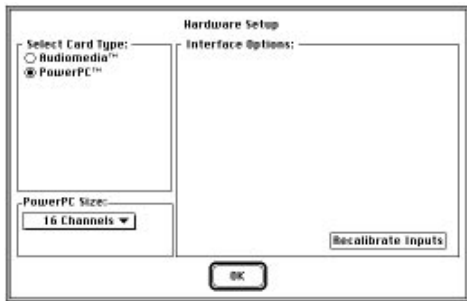
The *Hardware Setup* dialog is used to configure various parameters of Session's audio recording and playback hardware. These parameters differ depending on whether you are using a Power Macintosh or a Digidesign Audiomedia II card. In the case of a Power Mac, this dialog's *Choose Power PC Size* pop-up menu allows you to choose the number of tracks in your session. (Faster Power Macs allow up to 16 tracks. Slower Power Macs provide fewer tracks.) In the case of an Audiomedia II card, this dialog allows you to choose your sample rate, digital or analog input format, and other parameters that are available with an Audiomedia II card.



*The Hardware Setup dialog*

## Change Playback Hardware

The *Change Playback Hardware* dialog allows you to reconfigure various parameters of Session's audio recording and playback hardware during a session. If you are using a Power Macintosh for example, this dialog allows you to increase or decrease the number of tracks in your session. If you are using an Audiomedia II card, this dialog allows you to change other parameters that are available with an Audiomedia II card such as sample rate and input format. If you own both a Power Macintosh and an Audiomedia II card, this dialog allows you to switch between using the Audiomedia II card and using the Power Mac's built-in recording and playback capabilities. You can use this capability to switch to the Audiomedia II card when recording (for its high-quality inputs) and once you've got your instruments on disk, switch to the Power Mac to work with up to 16 tracks. This arrangement gives you the best of both worlds.



*The Change Playback Hardware dialog*

## Marker Auto Naming

The *Marker Auto Naming* dialog allows you to choose several defaults for the names Markers are given when you are using the *Auto Name Markers* command. These defaults include a marker name, a start number, the number of zeros preceding the start number, and a suffix. If the *Auto Name Markers* option is enabled (Options menu) Markers dropped “on the fly” will be named according to the defaults you have specified here.



*The Marker Auto Naming dialog*

---

## The Display Menu



The Display menu contains the commands which determine how Session displays its windows, tracks, and track data. Here are brief explanations of each command.

### Micro Tracks

The *Micro Tracks* command displays tracks at their smallest size in the Edit window.

### Small Tracks

The *Small Tracks* command displays tracks at reduced size in the Edit window

### Medium Tracks

The *Medium Tracks* command displays tracks at their standard size in the Edit window



## Large Tracks

The *Large Tracks* command displays tracks at their largest size in the Edit window

## Waveforms

Enabling this option allows you to view tracks as waveforms (rather than simply as blocks if this option is disabled) in the Edit window. In order to display a track as a waveform, you must have already created waveform overview data for it with the *Calc All Overviews* or *Calc Selected Overviews* command.

## Gain Automation

Enabling this option allows you to view breakpoint-style gain automation data for tracks in the Edit window. Gain automation is represented as a red line.

## Pan Automation

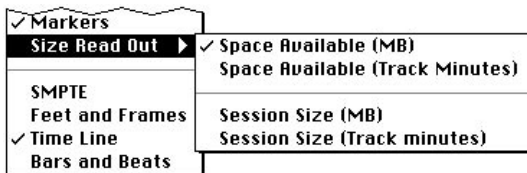
Enabling this option allows you to view breakpoint-style pan automation data for tracks in the Edit window. Pan automation is represented as a blue line.

## Markers

Enabling this option allows you to view Markers that you have placed in tracks in the Edit window.

## Size Read Out

Enabling this option allows you to select the format in which you want Session to display available hard disk space and session size. You can choose to display either of these parameters in either megabytes or track minutes, depending on your preference.



## SMPTE

Choosing this command displays the Time Scale in SMPTE frames. SMPTE frame rate is chosen in the *Time Code* dialog.

## Feet and Frames

Choosing this command displays the Time Scale in feet and frames for referencing audio-for-film projects. The Feet + Frames time display is based on the 35 millimeter film format.

## Time Line

Choosing this command displays the time scale in hours, minutes, and seconds.

## Bars and Beats

Choosing this command displays the Time Scale in *Bars & Beats*. You must use the *Identify Bar & Beat* command to identify at least two reference beats from which Session can interpolate the Bars & Beats Time Scale.

---

## The Window Menu



The Windows menu allows you to display any of Session's four windows: Mix Edit, Transport, or Movie.

## **Mix**

Choosing this command displays the Mix window. The Mix window provides you with a mixing console-type interface. Here, each of Session's tracks is represented by a mixer module, each with its own track gain fader, panning control, solo/mute buttons, and other controls. You will use this window to record and mix audio.

## **Edit**

Choosing this command displays the Edit window. The *Edit* window contains all of Session's digital editing functions. Here you will see a graphical display of your tracks. Using Session's digital editing tools, you can edit and rearrange your tracks nondestructively by dividing them into pieces or *regions* and rearranging them in a different order. The Edit window can also be used to record tracks.

## **Transport**

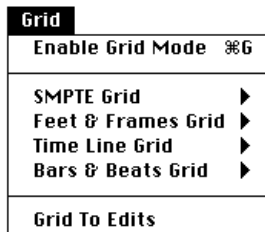
Choosing this command displays the Transport. The *Transport* window contains controls for Play, Stop, Record, Fast Forward, Rewind and Return to Zero. The Transport also contains controls for creating and recalling Markers which allow you to quickly navigate to a desired point in a session.

## **Movie**

If you have imported a QuickTime movie into your session, choosing this command displays the QuickTime movie window. The Movie window can be resized to Half Size, Normal Size, or Double Size by choosing the desired size command from the Movie menu. You can help maximize Session performance by displaying the Movie window at Half Size. Displaying QuickTime movies at larger sizes demands more processing power from your computer.

---

## The Grid Menu



The Grid menu allows you to enable/disable and choose the time format of Session's Grid mode.

### Enable Grid Mode

Choosing this command turns on Session's Grid mode. In this mode, regions snap to an invisible Grid when moved. The reference points on the grid can be SMPTE time units, Feet & Frame units, Time units, Bars & Beats, or other regions in a session (their start points). This feature makes it easy to accurately arrange regions in a track according to the chosen grid reference. The desired grid reference units can be chosen from any of the five choices below.

### SMPTE Grid

This command allows you to choose SMPTE time units as Grid points.



## Feet & Frames Grid

This command allows you to choose Feet & Frame units as Grid points.



## Time Line Grid

This command allows you to choose Time units as Grid points.



## Bars & Beats Grid

This command allows you to choose Bar & Beat units as Grid points.



## Grid to Edits

This command allows you to choose other regions in a session (their start or end points) as Grid points.

---

## The Movie Menu

Movie	
Import Movie...	
Import Current Movie Audio	
Import Other Movie Audio	
Mix Audio & Flatten Movie	
Set Movie Offset	
Half Size	⌘0
✓ Normal Size	⌘1
Double Size	⌘2
Center Movie Window	
✓ Movie Window Floats	

The Movie menu contains all of the commands you'll use to import QuickTime movies, their audio, and arrange the size and location of the Movie window on your screen.

### Import Movie

This command allows you to import a QuickTime movie into a session. When you select a movie in the *Import Movie* dialog, you can view a preview frame using the *Show Preview* check box. The preview is always the first frame of the movie. If you have not yet created a preview for the movie, you can do so by first selecting the movie and then clicking *Create* in the *Import Movie* dialog. After locating the movie you want to import, make sure it is selected (highlighted) and click *Open*. Session will display the movie in its own Movie window, and first frame of the movie will be synchronized to the start time of your session.



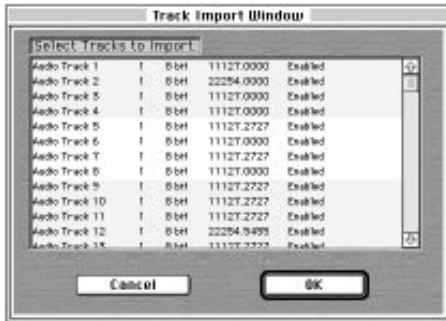
## Import Current Movie Audio

This command allows you to import audio from the QuickTime movie currently loaded into a session. When the Import Current Movie Audio dialog appears, select the desired audio tracks by clicking them. To select multiple tracks *contiguously* in this dialog, Shift-click them. To select them *discontinuously*, Command-click them. Session will convert the audio tracks to your session's sample rate setting and 16-bit resolution, and then import the selected audio track(s) into the Audio Regions List. The regions are listed in the Audio Regions List with the region name, the number of the originating track, and the number of the region from the track.



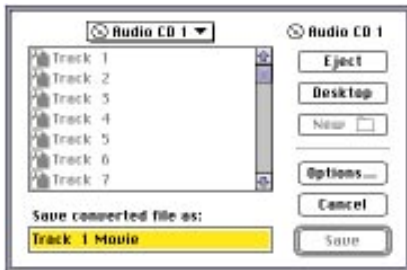
## Import Other Movie Audio

This command allows you to import audio embedded in a QuickTime movie that is *not* imported into your session, or from an audio CD. To do so, choose *Import Other Movie Audio* from the *Movie* menu. In the dialog that appears, select the QuickTime movie that you wish to import audio from. The Track Import dialog that appears displays information about the audio tracks from the selected movie including the number of the track, number of channels, bit resolution, sample rate, and enabled/disabled status in the movie. If there is no audio in the selected movie to import, a dialog will appear to notify you. Select the desired audio tracks by clicking them. To select multiple tracks *contiguously*, Shift-click them. To select them *discontiguously*, Command-click them. Session will convert the audio tracks to your session's sample rate setting and 16-bit resolution, and then import the selected audio track(s) into the Audio Regions List. The regions are listed in the Audio Regions List with the region name, the number of the originating track, and the number of the region from the track. From there you can drag the imported regions from the Audio Regions List into the desired track(s).



*Using the Import Other Movie Audio command to import audio tracks from a QuickTime movie*





Using the *Import Other Movie Audio* command to import a track from an audio CD

## Mix Audio & Flatten Movie

This command allows you to master your current session to a QuickTime movie. It does this by bouncing your session (or a selected portion of the session) to a QuickTime audio movie, marrying it to the QuickTime movie currently imported into the session, and writing a new QuickTime movie to disk. Since this command uses the *Bounce Tracks* dialog to perform the bounce, you have the same choices for bit resolution and sample rate conversion as you normally have with this command. In order to flatten a QuickTime movie, it must start at the *beginning* of the session. If the *Movie Offset* (Set Movie Offset command) is set to a location other than the start time of the session, the *Mix Audio & Flatten Movie* function will NOT be available. If you want to compile a new movie with a Movie Offset, use the regular *Bounce Tracks* command from the File menu to output your session audio, and then marry the bounced audio with the video material in movie editing software such as Adobe Premiere and create the offset there.

## Set Movie Offset

This command allows you to specify a time duration (in SMPTE frames) that will elapse before QuickTime movie playback begins. This provides you with a convenient means of starting audio playback before movie playback.

**Half Size**

Choosing this command displays the movie at half of its normal size.

**Normal Size**

Choosing this command displays the movie window at its standard size.

**Double Size**

Choosing this command displays the movie window at twice its normal size.

**Center Movie Playback**

Choosing this command centers the Movie window in the middle of your screen.

**Movie Window Floats**

Choosing this command makes the movie window “float” on top of all other windows so that it cannot be obscured.