EZ-Track Plus™

User Manual
Second Edition

The Hybrid Arts Line of MIDI Recording Systems consists of the following programs:

EZ-Track Plus   20 Tracks / MIDI Implementation / Perfect Introductory Educational System

SyncTrack   60 Tracks / Tape Synchronization (TTL, FSK, PPQ, MidiTrack II & III, HybriSync, Click) / Full Graphic & Text Editing

SmpteTrack   60 Tracks / SMPTE Synchronization as well as Tape Synchronization / Full Graphic & Text Editing

Manual Second Edition

Also available from Hybrid Arts for use with EZ-Track Plus:

EZ-Score Plus Convert any EZ-Track Plus song file into notation format for printing. Also can be a stand-alone professional music printing program.

GenPatch ST Stores any type of MIDI information that is transmitted across MIDI. It is constantly being updated to work with new synthesizers that are being released.

HybriSwitch Allows the user to instantly switch between different programs loaded in memory at the same time. This could be useful for switching between EZ-Track Plus, EZ-Score Plus and GenPatch ST.

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TABLE OF CONTENTS

CHAPTER 1
INTRODUCTION

In This Chapter:

- Program Overview
- About This Manual
- System Requirements

PROGRAM OVERVIEW

EZ-Track Plus is a 20-track sequencer that provides any musician with the most flexible and powerful music production system available for the Atari personal computer system. This overview is simply intended to give you an idea of what's in store for you as you learn to use EZ-Track Plus. Because it is a powerful package, it means there is a lot to learn. Fortunately, the interface built into the program is very easy to operate, giving you a variety of ways to tell the computer just what you want it to do for you. To get the most out of this program, you should invest some time in learning how to use it. The rewards of learning the power of this package will become more evident each time you sit down to write some music, and as the commands become second nature to you, the speed with which you produce will impress you.

EZ-Track Plus is primarily laid out like a multi-track tape recorder; linear sequencing, in other words. Each track functions quite like what you'd find in a 4-track or 8-track machine, except now you have 20 digital tracks. You can record music in much the same way: keyboards on one track, bass on another, kick on a third, etc., overdubbing as you go. Tracks can be muted, bounced, or just about anything you'd normally do with an analog tape deck.

Bear in mind a basic understanding of MIDI and the instruments you own: each key or button of your instrument (drum machines included) is like a light switch. Those switches are used to turn notes ON and OFF, no matter what sound is set to be played.

When you play a MIDI instrument, the sequencer remembers what time you play which note (switch) and how long you hold the note (or keep the switch pressed ON). When the sequencer plays back, it electronically makes the same notes (switches) turn ON and OFF at the time you manually played them, relative to the starting time of the sequencer.

If your instrument can only play one sound at a time, that's all EZ-Track Plus can play. But if your instrument can play more than one sound at once (for example, a flute, trumpet, piano, strings, etc.) then the sequencer, when set properly, can also play those different sounds.

EZ-Track Plus has a variety of options available to you. There are hundreds of options; however, you only need to learn a few to get started. And all the features are always available to you, with no need to memorize any complicated key strokes or involved commands. Use the mouse to point, click, and select the functions.

EZ-Track Plus is an extremly powerful music tool. Both the program and the manual are written in an easy interactive style. We hope this piece of software will be easy to learn. We're sure you'll enjoy the music EZ-Track Plus lets you create.

ABOUT THIS MANUAL

Why Use This Manual

The reason for an owner's manual is obvious: it provides the necessary information to operate a machine, or in this case, a sophisticated piece of software. EZ-Track Plus is an easy program to use; most functions can be figured out intuitively, without a need to reference the manual at all. However, there may come a time when you really want to discover the full power of EZ-Track Plus, or you need a greater understanding of one feature or another, so a good operations manual is helpful. This manual has been written to complement the ease of use of the program, providing insight and depth for every feature but presenting it in such a way that having 'a degree in computer science isn't necessary to figure it out.

You are the one learning to use EZ-Track Plus, and the time you invest in fully understanding how this tool works translates into how effectively you can make it work for you. Or how much fun you're going to be able to have with it.

How This Manual Is Organized

This manual has been organized so you can learn about the EZ-Track Plus program quickly and easily. Each chapter is organized with a step-by-step learning process in mind. The manual starts out explaining basic operations (Setup, Recording, Track Copying), and goes on to explain more advanced features (Glue Section, Velocity Adjust, MIDI Synchronizing).

At the start of each chapter there is also a key word list: words and terms used in the chapter that are important to fully understand the material contained within it. It's a good idea to review these terms before reading the chapter for the first time so that you'll have a good grasp of the fundemental words involved.

The Table Of Contents lists the appendices that appear at the end of the manual. These are labeled after a prominent letter of the Appendix name so you can easily remember their contents: Appendix **A** - **A**pplication Notes, **G** - **G**lossary, **K** - **K**ey Command Summary, and **R** -- Menu Bar **R**eference. ***There are no missing pages or sections.***

A detailed index and complete glossary of terms can be found at the end of the manual.

This manual assumes a basic knowledge of the Atari ST. If you haven't yet done so, please familiarize yourself with the ST owner's manual.

Suggested Study Habits

In studying the information in this manual, do not go beyond words you don't fully understand. There is an extensive glossary at the end of the manual containing the technical terms you'll find within these pages as well as a list of words used within the subject of electronic music.

You're going to be learning a very sophisticated piece of software, and the application of good study habits will go a long way in making the most of the time you're about to invest. If you come across a word you do not fully understand, look it up in the glossary or a regular dictionary, then restudy the materials. You'll find things start making a whole lot more sense very quickly. Although it may take a little extra time to clear up technical terms, you'll find your progress speeds up as you go.

SYSTEM   REQUIREMENTS

To get your system working, you must first have the following items.

Required:
- Atari 520ST, 1040ST or a MEGA personal computer
- Color or Monochrome Monitor
  (The program works in either Medium or High resolution)
- One disk drive (Single or Double Sided)
- At least one MIDI-equipped instrument
- An audio playback system or set of headphones
- An EZ-Track Plus disk
- 2 or more MIDI cables

The following are optional items that help the system to work more effectively.

Optional:
- Additional MIDI-equipped instruments and MIDI cables
- An additional disk drive
- Hard Disk drive (for speed and storage)
- Additional RAM (internally in the computer. See your Atari Dealer)
- Battery Backup clock (pre-packaged within MEGA computers)

Note:
EZ-Track Plus does not play music through the internal sound chips of the Atari ST.

CHAPTER 2
GETTING STARTED

In This Chapter:

- Checking Your Package
- Making A Backup
- Connecting Your System
- Loading EZ-Track Plus
- Recording Music

Key Words:

- Buffer
- Interface
- MIDI In/Out/Thru
- Overdub

CHECKING YOUR PACKAGE

Package Contents

Your EZ-Track Plus package should contain:

- The EZ-Track Plus Manual
- The EZ-Track Plus Master Disk
- Registration & Warranty Card

If your package is not complete, call your Hybrid Arts dealer or supplier.

Before going any further, PLEASE fill out your warranty/registration card and mail it in. This is IMPORTANT so that we can notify you regarding future upgrades to EZ-Track Plus, and so that you can call Hybrid Arts Technical Support for assistance with the program.

Disk Contents

The Master Disk contains your EZ-Track Plus program. It contains the following files:

AUTO		(A folder containing EXACTIME.PRG which sets your clock to the correct time when you reset the computer.)
CONTROL	.ACC	Control Panel Accessory
GENPATCH	.ACC	GenPatch Accessory
DESKTOP	.INF	
EZTRACK+	.PRG	EZ-Track Plus program
EZTP	.REL	

There are also some songs on your disk provided for your listening pleasure. These can be studied and used as introductory examples.

The disk has been set to write protect ON (the tab is positioned so you can see through the hole). This is set ON so that the information on the disk can't be erased by mistake.

MAKING A BACKUP

The EZ-Track Plus disk is not copy protected. This is for your convenience so that you can make a personal copy for backup use. If something should happen to your disk, you can replace it with your backup copy.

This is also so that you can copy the program to your hard drive. You can run this program from your hard drive without worrying about having a key disk in Drive A.

Before you begin, you should make a backup copy of your disk and use this backup as your working copy, storing the original in a safe place.

To Format A Disk Single-Sided (from the DESKTOP):
• Insert a blank disk in drive A
• Click once on FLOPPY DISK A (it inverts)
• Select Format from the File menu
• Format the disk Single-Sided
• The number of bytes on a Single-Sided disk is 357376. If this number matches the number on the screen after the formatting is complete, the disk has been properly formatted.
• Click OK
• Click EXIT (to exit from the Format program)

EZ-Track Plus
Master Disk

Blank
Formatted
Disk
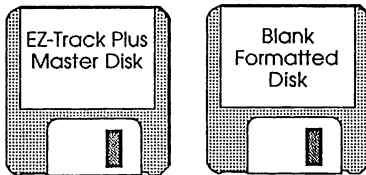
Follow these steps to make a backup disk of EZ-Track Plus:

To Make A Backup (Using 1 Disk Drive):
- Format a disk Single-Sided
- Insert your EZ-Track Plus Master Disk in drive A
- Click on FLOPPY DISK A once and hold the left mouse button
- Drag Drive A over to Drive B until Drive B inverts
- Let go of the mouse button
- An Alert box appears explaining that doing this will erase all of the information on FLOPPY DISK B
- Click OK
- This runs an Atari disk copy program
- When prompted to swap disks:
     SOURCE is your Master Disk (Disk A)
     DESTINATION is your newly formatted blank disk (Disk B)
- Click COPY
- Disk A will be copied to Disk B
- When the Disk Copy program returns, Click EXIT

(If you have another disk copy program, follow the instructions for that particular program.) MAKE SURE TO LABEL YOUR BACKUP DISK.

Installing EZ-Track Plus on a Hard Disk

If you have a hard disk drive, you can copy EZ-Track Plus to it without any problems. If you put the program into its own folder, make sure you put the necessary accessories outside the folder on the correct directory. If you BOOT off of a Hard Disk Boot Disk, make sure you have accessories on Drive A or Drive C -- not both. If your hard disk is set to AUTO-BOOT, you must have your accessories on the root directory of Drive C.

CONNECTING YOUR SYSTEM

In order to hear any music from EZ-Track Plus you'll need to connect it via MIDI to an external synthesizer. The basic hookup requires two MIDI connections: the MIDI Out of your synthesizer to the MIDI In of the ST and vice versa.
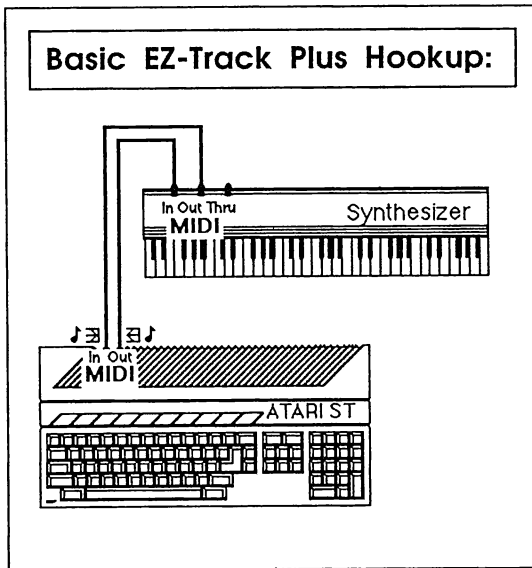
LOADING EZ-TRACK PLUS

The EZ-Track Plus disk contains information neccessary for starting the computer and loading it with the proper Accessories associated with your EZ-Track Plus program.

The Desk Accessories are loaded when the computer is first turned ON. The disk in the main drive (usually drive A by default) is where the accessories are loaded from. If the disk doesn't have any accessories, NONE WILL BE LOADED. To reload new accessories, turn the computer OFF, insert a disk with the proper accessories on it, then turn the computer ON.

To Load EZ-Track Plus:
- Insert your EZ-Track Plus disk in drive A
- Turn the computer ON
- After a while, a "desktop" appears and you should see a listing of what is on the disk (The listing is called the Directory and each item in the Directory is called a File)
- Click on the file named EZTRACK+.PRG once

DESKTOP	INF	456	04-22-88
EZTRACK+	PRG	2432	04-22-88
EZTP	REL	195470	04-22-88
5SONGS	SNG	81198	04-22-88

- Select Open from the File menu

EZ-Track Plus is now loading. This process is signified by EZTRACK+.PRG displayed at the title line at the top of the screen and a Busy Bee hard at work loading the program for you.

File
Open
Show Info...
New Folder...
Close
Close Window
Format...
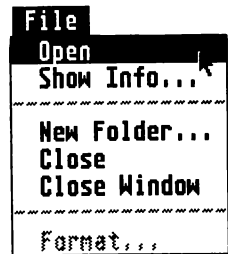
RECORDING MUSIC

If you have an instrument correctly connected to the MIDI ports of the Atari, EZ-Track Plus will record anything you play on that instrument.

To Record Music:
• Click on the PLAY button

If you have your monitor sound up, you'll hear a metronome start counting at a tempo of 120 beats per minute (the default tempo). You'll see the little metronome icon begin ticking

• Play some notes on your instrument
• As soon as you press any key on your instrument, the KEEP button will become highlighted. This means that EZ-Track Plus has received some MIDI information and is storing it in the Record Buffer.
• As soon as you're done playing, click on the STOP button

Whatever you have played is stored within the Record Buffer, and you'll need to assign this information to a track. *Unlike a traditional Multi-Track recorder, you select the track AFTER you've recorded some music.*

To the left of your screen you'll see a column of numbers from 01 to 20. These are the 20 tracks you can record on. Directly to the left of number 01 you can see a small arrow, which is an indicator to show you which track you are about to access.
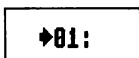
+01:   Since it's already pointing to track 01, we'll save our music there.

To Save What Is In The Record Buffer:
• Select an empty track to save on (track 01 is initially selected)
• Click on the KEEP button

KEEP   The KEEP button turns grey (meaning the information is no longer stored in the Record Buffer) and a small **c** appears to the left of the percentage for track 01. This signifies some change has been made to the track and has not yet been saved to disk.

To Hear What Has Been Recorded:
• Click on the PLAY button

To Add Another Part:
• Click the PLAY button
• Play an additional part on your instrument in time with the music on track 01
• As soon as you begin playing, the KEEP button is highlighted
• When you're finished, click on the STOP button

You'll now need to put this part on a separate track.

To Save Overdubs:
• Select an empty track by clicking on its track number

88%

You can tell a track is empty because the memory percentage shown for that track will be 00%

• Click on the KEEP button

KEEP

The KEEP button greys and a little **c** appears to the left of the track percentage

• If you click the Play button once again, you'll hear both tracks 01 and 02

```
01: part 1          ⇧   c   01%
▶02: part 2          ⇧   c   01%
03:                 ⇧       00%
04:                 ⇧       00%
05:                 ⇧       00%
06:                 ⇧       00%
```

You can keep building tracks this way until all the tracks are filled up. Congratulations! You've just learned the basics of recording using EZ-Track Plus.

CHAPTER 3
BASIC OPERATION

In This Chapter:

- A Tour Of EZ-Track Plus
- Tracks
- Recording
- File Management

Key Words:

- Backup Files
- Bounce
- Buffer
- MIDI Channel
- Overdub
- Punch-In/Punch-Out
- Step Record
- Ticks

A TOUR OF EZ-TRACK PLUS

The Screen

The screen is divided into two main sections: the Track Display on the left
and the Control Display on the right. The menu options are available from
the drop-down menu bar across the top of the screen. All there are other
screens or boxes that you will see later, this is the main screen from which
you will do most of your work.
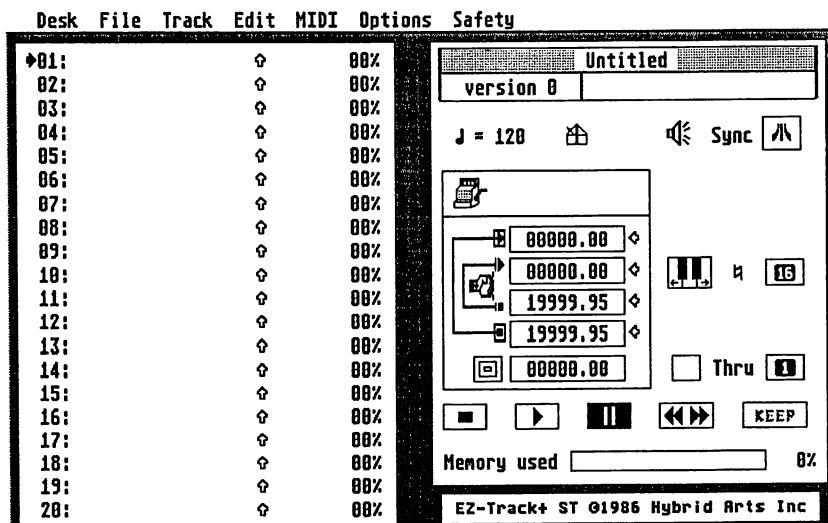
The Menu Bar

The Menu Bar contains many of the functions within the program. To access any Menu function, point the mouse at any menu name (for example, **Edit**). The menu will drop down. Now move the mouse to the desired function. Once the function inverts, click the left button once.

File
Load...
Import Track...
Save as...
Update
Delete...
Format Disk...
Current Drive
HybriSwitch
Quit

Track
Name
Protect
Unprotect
Glue Section
Delete

Edit
Name Song
Copy Track
Mix Tracks
Unmix Track
Quantize Track
Transpose Track
Velocity Adjust
Erase Song

MIDI
Send Mode Msg
Input Filters
Output Options

Options
Meter/Metronome
Quantize Method
Whole vs Region
Track Delays

Safety
Entering Menu
✓ Shift + Enter
✓ Deleting
✓ Replacing
✓ Back Up Files

The Track Display

```
                                          10
                                 8         9       11
      2          3          6     |        |        |
      |          |          |     |        |        |

    01: chord groove      ⇧  E   5  02%
  ⬧02: solo lead          ⇧  ℮ᴄ    01%
    03: bass               ⇧  !  1ᴘ01%
    04:              4      ⇩      00%
    05:                     ⇩      00%
    06:              5      ⇩      00%
    07:                   7 ⇩      00%
    08:                     ⇩      00%
    09:                     ⇩      00%
    10:                     ⇩      00%
    11:                     ⇩      00%
    12:                     ⇩      00%
    13:                     ⇩      00%
    14:                     ⇩      00%
    15:                     ⇩      00%
    16:                     ⇩      00%
    17:                     ⇩      00%
    18:                     ⇩      00%
    19:                     ⇩      00%
    20:                     ⇩      00%
```

1
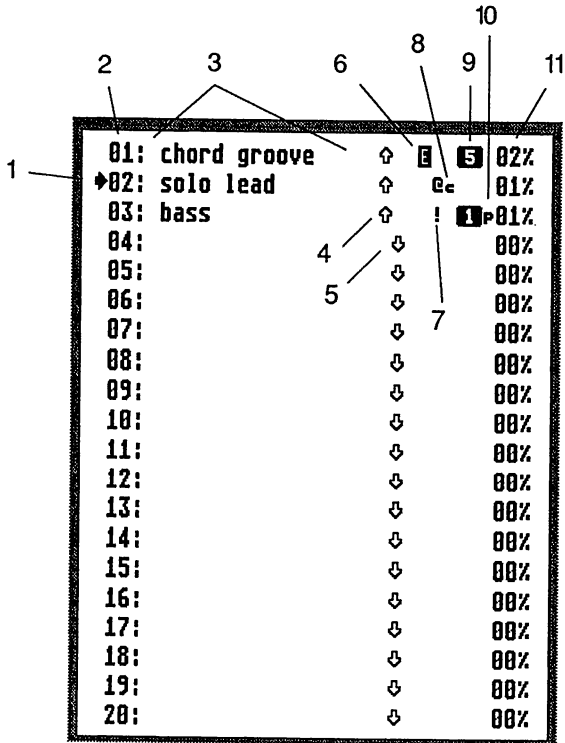
1	Track Pointer
2	Track Number
3	Track Name
4	Track Mute ON
5	Track Mute OFF
6	End Of Track Indicator
7	Track Activity Indicator
8	Track Changed Since Last Save
9	Track MIDI Channel Column (Output Assignment)
10	Track Protected
11	Percentage Of Memory Used By A Track

All information listed is separate for each track.

The picture to the left is an example of how the Track Display may look during a session. It shows the following: MIDI information, track names, mute status, etc.

The Track Activity indicators show how many notes are being played simultaneously (per track). The chart below describes what each indicator represents. If you see a percent sign, for example, then there are 5 notes being played at that time, on that track.

Track Activity Indicators									
Indicator: !	@	#	$	%	^	&	*	(	)
Notes: 1	2	3	4	5	6	7	8	9	10

A track playing more than 10 notes has a + Indicator

The Control Display
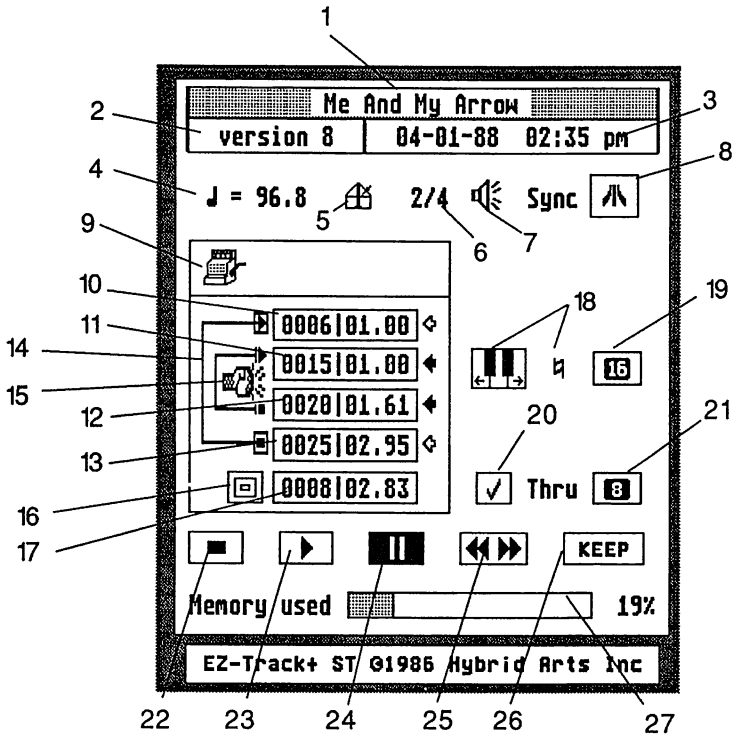
The information is explained from top to bottom, left to right:

1	Song Name
2	Version # Of The Current Song
3	Date (MM-DD-YY) & Time Of Last Save
4	Tempo Setting
5	The Metronome
6	Displayed Time Signature (Optional)
7	Metronome Sound On/Off
8	Synchronization Type (Internal & MIDI)
9	Register/Section Mode Indicator (Register Mode shown)
10	Start Time
11	Punch-In Time
12	Punch-Out Time
13	End Time
14	Locate Enable/Disable (shown Disabled)
15	Punch Enable/Disable (shown Enabled)
16	Counter Reset Button
17	Counter
18	Global Transpose
19	MIDI channel NOT affected by Global Transpose
20	MIDI Thru ON/OFF
21	MIDI Thru To This MIDI Channel
22	STOP
23	PLAY
24	PAUSE
25	FF/REWIND
26	KEEP
27	Total Memory Used For Song

Note:

The **Memory used** bar and percentage indicate how much of the total song memory available has been used. Editing operations require varying amounts of free memory for temporary storage. Press **Control Alternate Shift N** to get a readout of the amount of total song memory available; this memory amount will vary depending on how much RAM you have in your Atari ST, and what other programs (desk accessories, HybriSwitch, some AUTO folder programs, etc.) are in memory when you run EZ-Track Plus.

Program Design

Every effort has been made to make EZ-Track Plus an easy program to operate. It is a very visual system; you place MIDI information on separate tracks, each of which you can name, protect, mute and deal with in a wide variety of ways. You have the equivalent of VU meters with graphic symbols appearing to denote the presence or absence of notes. There are no pages to flip through in order to view the key information you need to know; it's always right in front of you, always tracking in real time.

Use The Mouse And/Or Key Commands

Commands are given either by pointing and clicking with a mouse, or by using the computer keyboard with pre-programmed mnemonic keys (meaning keyboard commands are linked as much as possible 'to the first letter of the function being used, eg. Mix uses the letter M). Using the computer keyboard requires, with a few exceptions, that you press down two keys at the same time, normally the Control Key and a letter. For example, if you wanted to access the Copy tracks function you could press the Control key and the letter C. Of course, you could just as easily select Copy Track from the Edit menu.

Every basic function is available all the time. As you become more familiar with the program, you may find yourself favoring one or the other methods of control, either mouse or computer keyboard, but more than likely you'll be using a combination of both. The software is designed to make it easy for you to use, whether you are a brand new user or a seasoned expert.

Refer to Appendix K for a table of key command equivalents

Non-Destructive Editing

Another design philosophy incorporated within EZ-Track Plus is that of non-destructive editing. None of the editing you do to a track has to be permanent. When you edit, you may save the edited version to any track. If you feel confident with your edit, you can place the edited version over the previous one. However, if you want to retain the original version, even if it's just for safety's sake, select another track and put your altered data there. This way, if you're unhappy with the changes, you always have the original stored on another track.

As much as possible EZ-Track Plus protects your work from inadvertent errors. You can protect individual tracks so that you cannot save new or altered data to them. You can have the program warn you if you are about to replace or erase a track. If you overwrite a song file on disk, EZ-Track Plus will automatically make a backup copy of the previous file, if you so choose.

In short, great care has been made to ensure as much safety as is possible to protect the work you'll be creating using EZ-Track Plus. The design philosophy of Hybrid Arts is that of non-destructive editing, so you can feel free to experiment as much as you like without worrying that your original ideas will be erased.

TRACKS

There are 20 independent tracks available. When you record something, you save it to a track. When you want to hear what you've recorded, turn that track ON, and press PLAY. Tracks are the place where you organize your work.

Track Selection

To the left of the track numbers you will see a small arrow; this is the track selection indicator or pointer. Its function is solely to determine which track is selected or about to be accessed.

To SELECT A Track:
• Click once in the area shown

To select Track 03
click in this area:

➔01: Bass 1   ⇧   ! ▣ 14%
   02: Piano solo intro   ⇧ ⊟ c p 05%
   03:                                ⇩   00%
   04: Bridge Strings   ⇧   ! c▣p 12%
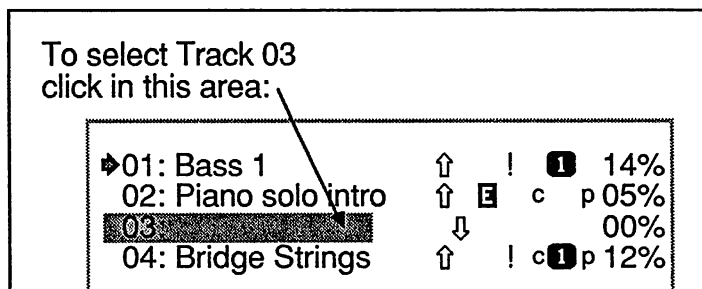
The Track Pointer will move to that track.

To SELECT A Track Using The Keyboard:
• Press the Up or Down arrows on the Atari ST keyboard.
• As you press the key, the pointer will go up or down one track at a time, depending which directional arrow you press.

Press This Key On The Computer Keyboard	To Select This Track On The Screen
1	Track 01
.	.
.	.
.	.
0	Track 10
Shift 1	Track 11
.	.
.	.
.	.
Shift 0	Track 20

Note:
The numeric keys are those above the ST keyboard, not those on the numerical keypad to the left of the ST keyboard.

Naming Tracks

Each track can have a name containing up to 16 characters.   This allows you to organize your tracks depending on your preference and keep a visual reference as to what is contained on each track.

To NAME A Track:
• Select the track you wish to Name
• Select Name from the Track menu OR press Control N
• Type in up to 16 characters (use Esc or Backspace if necessary)
• Click OK

```
┌─────────────────────────────────────────────┐
│  ┌──────────────────────────────────────┐    │
│  │                                      │    │
│  │  Track  1 name:  Trumpet Solo____    │    │
│  │                                      │    │
│  │      ┌──────────┐   ┌──────────┐     │    │
│  │      │   OK     │   │  Cancel  │     │    │
│  │      └──────────┘   └──────────┘     │    │
│  │                                      │    │
│  └──────────────────────────────────────┘    │
└─────────────────────────────────────────────┘
```
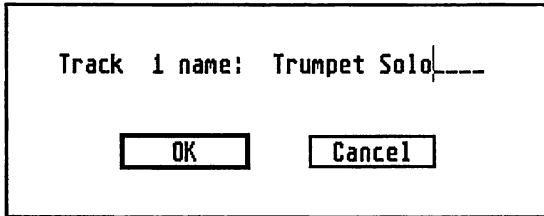
The dialog box disappears and the track you selected now has a name.

To Change A Track NAME:
• Select the track you wish to Re-Name
• Select Name from the Track menu OR press Control N
  The current name appears with the cursor at the right end
• Type in up to 16 characters (use Esc or Backspace if necessary)
• Click OK

Use Esc (Escape) to clear out the name. Use Backspace to erase one character to the left of the cursor.

Note:
Track names can be used as memo pads for writing general notes about the song, remembering patch settings, etc.

Track Protection

You may protect individual tracks from changes or accidental erasure. This feature is a software "write protect" which prevents you from writing over an important track. You can edit a protected track as long as you save the changes to an empty unprotected track.

To PROTECT A Track:
• Select the track you wish to Protect
• Select Protect from the Track menu OR press Control P

A **p** appears to the left of the track percentage indicating that the track is now protected.

To UNPROTECT A Track:
• Select the Protected track you wish to Unprotect
• Select Unprotect from the Track menu OR press Control Shift P

The **p** disappears from the protected track, indicating it is now unprotected.

```
 01: Protected      ⇧   ⊂  p00%
♦02: Unprotected     ⇧   ⊂   00%
```

If a track is protected and you try to save something on it, you will see the following warning (the edit will not be saved when you click OK and you must re-do the edit and save it to a blank track):

```
(STOP) Track  1 protected!


         OK
```
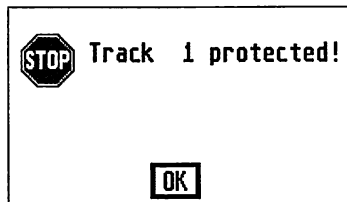
Turning Tracks ON and OFF

Directly to the right of the track name is an arrow pointing up or down. This arrow represents the mute function for the track; up means it is not muted (ON) and will play back the information stored on the track, down means the track is muted (OFF) and won't be heard. In addition, tracks can be soloed (all tracks OFF except the one that is selected) and Bowed-Out (all tracks are ON except the one that is selected).

To Do This	Click These Mouse Buttons On A Track's ON/OFF Arrows	Select A Track, Then Press These Atari ST Keyboard Keys
Mute A Track	Click RIGHT	Shift DOWN ARROW
Unmute A Track	Click LEFT	Shift UP ARROW
Solo A Track	Click and Hold LEFT Then Click RIGHT	Control UP ARROW
Bow-Out A Track	Click and Hold RIGHT Then Click LEFT	Control DOWN ARROW
Mute ALL Tracks	Solo A Track Then Mute It	Control Shift DOWN ARROW
Unmute ALL Tracks	Bow-Out A Track Then Unmute It	Control Shift UP ARROW

Deleting A Track

There is a function which erases all information on a track. When you attempt to do this a dialog box will appear, verifying your intention to delete the track, as this action will destroy anything you have on the track and you may NOT reverse the process. Be sure that's what you really want to do before erasing the data on the track.

To DELETE A Track:
• Select the track you wish to Delete
• Select Delete from the Track menu
• If Deleting is checked under the Safety menu, a dialog box will appear asking you to verify this deletion. Click OK.
• The track percentage will change to 00%

Note:
If the track you selected is already empty, the Delete function will be disabled and you won't be able to use it.

EZ-Track Plus is an interactive program and allows you to make choices based on functions available at the time. For example, if there isn't any data on a track, you won't be able to delete it.

To DELETE A Track Using The ST Keyboard:
• Select the track you wish to affect
• Press Control Shift D
• A dialog box will appear verifying your decision to erase the track
• Click Delete OR press Return
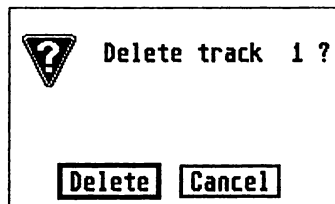
Assigning MIDI Channels

You can assign any one of the 16 MIDI channels to any track.

To ASSIGN A MIDI Channel:
- Point to the Track MIDI Channel Column
- Click with the RIGHT button to increase the MIDI channel number
- Click with the LEFT button to decrease it

```
▶01: bass               ⇧        01%
  02: melody & chords   ⇧       ↖01%
  03: accompaniment     ⇧        01%
```

Click once with the Right button

```
▶01: bass               ⇧    ▌1  01%
  02: melody & chords   ⇧       ↖01%
  03: accompaniment     ⇧        01%
```

To ASSIGN A MIDI Channel From The ST Keyboard:
- Select a track
- Press Shift] to increase its MIDI channel number
- Press Shift [to decrease it
- Press Control 1 through Control 0 to assign MIDI channels 1 though 10
- Press Control Shift 1 through Control Shift 6 to assign MIDI channels 11 through 16
- Press Control Shift 0 to reset the MIDI channel assignment to its original unassigned status

For example, if you press Control 4, then MIDI channel 4 (shown as a TV GUIDE style channel 4 indicator) is assigned to that track.

If a MIDI channel is not assigned, all channel data on that track will play back as it was recorded. For example, if two tracks with two different MIDI channels are mixed, and the destination track has no MIDI channel assigned, that track will play back both channels correctly.

RECORDING

No matter which method you'll be using to arrange your music, you'll still need a good grasp of the recording fundamentals built into EZ-Track Plus. Although the program allows you to sequence music in many different ways, the basic recording method is the same. EZ-Track Plus has been laid out in a similar fashion to a multi-track tape recorder using analogous controls that most musicians are already familiar with. This section covers the operation of these controls.

The Record Buffer

It is important to understand how EZ-Track Plus is recording. As soon as you press PLAY, it will record whatever you play on your instrument. When you play a key, change a patch, or use the Pitch or Mod wheels, EZ-Track Plus stores that MIDI information in its Record Buffer.

The MIDI information remains in the Record Buffer unless you do one of the following:

click on the KEEP button   Stores the data from the buffer to a selected track

click on the PLAY button   Places EZ-Track Plus in active record mode once again, wiping the buffer out and readying it to recieve new MIDI data

click on the Counter Reset   Also wipes out the buffer   .

click on FF/REWIND   Also wipes out the buffer

The menu operations which replace or delete tracks (and Meter/Metronome) also clear the Record Buffer.

You store music and other information on tracks AFTER THE FACT of performing or creating it, not before as in conventional recording techniques. This also means you can always overdub tracks without worrying about assigning a track or recording over music you want to keep.

WHENEVER EZ-TRACK PLUS IS IN PLAY, IT IS ALWAYS RECORDING. In fact, EZ-Track Plus is always recording even when it's in PAUSE.

It records exactly what you play when you play it. Quantization and all other forms of music processing are done AFTER the information has been stored to a track, not during recording.

Record Controls

The Recording Controls are shown below:

Locate/Punch Times

Master Counter

Recording Controls

```
          ┌──────────────────────────┐
          │ 📠                        │
          │    ┌──┐ ┌─────────┐ ◇     │
  >       │  ┌─┤▷ │ │00000.00 │       │
  >       │  │ └──┘ └─────────┘ ◇     │
  >    ┌──┤  │ ┌──┐ │00000.00 │       │
  >    │📂│  │ └──┘ └─────────┘ ◇     │
          │  │      │19999.95 │       │
          │  │ ┌──┐ └─────────┘ ◇     │
          │  └─┤▣ │ │19999.95 │       │
          │    └──┘ └─────────┘       │
          │   ┌──┐  ┌─────────┐       │
          │   │▣ │  │00000.00 │       │
          └────────────────────────── ┘
```

[■]   [▶]   ▐▌   ◀◀▶▶   [KEEP]
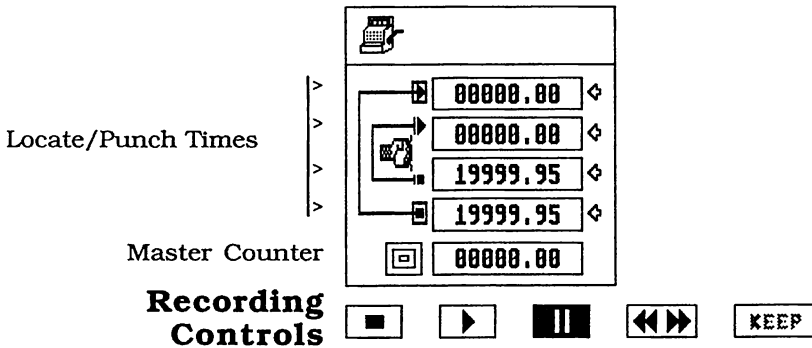
In order of sequence these buttons represent the following functions:

STOP

This stops EZ-Track Plus and also turns off any MIDI Notes at the point where it was stopped. The equivalent key command is the Return key.

Note:
When you press STOP, PAUSE becomes highlighted. You can continue playing from where you stop by clicking PAUSE or pressing the Tab key.

PLAY/RECORD

This button starts EZ-Track Plus, playing from the start (either the beginning of the track or the Start Time if one has been set and Locate activated), and automatically places it in record mode. Pressing the space bar is the equivalent key command.

PAUSE

This will cause EZ-Track Plus to pause during playback, and any MIDI notes currently ON will remain ON. To continue playing from the point paused, click PAUSE again. Press the Tab key as an alternate way to pause.

Note:
You may continue playing from wherever you pause by clicking PAUSE or pressing the Tab key a second time.

FORWARD/REWIND

This operates like a conventional recorder, rolling the location of the music forward or backward.

FORWARD
- Point at the FF/REWIND icon
- Click and hold the Right button
- EZ-Track Plus keeps rolling forward until you release the mouse button.
- **Click PAUSE to continue if you're in PAUSE mode**

REWIND
- Point at the FF/REWIND icon
- Click and hold the Left button
- EZ-Track Plus keeps rewinding until you release the mouse button.
- **Click PAUSE to continue if you're in PAUSE mode**

KEEP

This KEEPs the recorded music that currently exists in the Record Buffer of the computer. Click on this box to perform the transfer FROM the Record Buffer TO the selected track.

BEFORE clicking on the Keep icon ALWAYS SELECT THE TRACK YOU ARE GOING TO KEEP YOUR MUSIC TO.

The keyboard equivalent is pressing Shift Enter (numeric keypad). If Shift+Enter is unchecked under the Safety menu, pressing just Enter will KEEP the Recorded information.

COUNTER

Directly above these controls is a counter. Instead of measuring feet of tape as a conventional recorder does, this one counts beats/ticks (or measures/beats/ticks) of time in increments of 96 ticks per beat.

To RESET The Counter:
- Click on the Reset button to the left of the Counter

OR
- Press Control Space Bar

Auto-Locating

When dealing with analog tape recorders, there is always a significant lag between the time you Stop the tape deck, rewind it to the beginning (or an earlier point on tape), and press the Play button to listen to what's recorded. Not so with EZ-Track Plus. Auto-locating is a method of instantaneous location to any moment of time. (There is a limit: 20,000 beats of music, or 5,000 bars of 4/4 time, but not many compostions will go that long).

 The top number is the Start Time. The bottom number is the End Time. Directly to the left of these times, there is a connecting line. By pointing to anywhere on the connecting line and clicking, the Start and End times are activated (you'll see the two arrows to the right of these counters "light up" to indicate they are active).
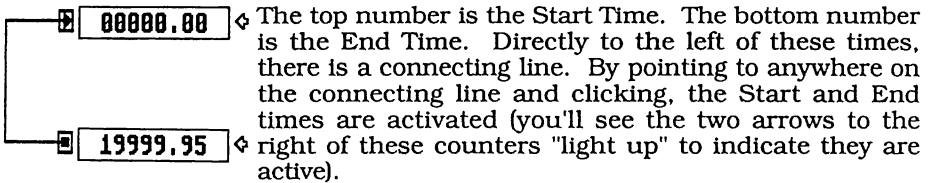
To Set The Start Time:
• Point with the mouse at the numbers within the Start Time
• Use the RIGHT button to increment any digit
• Use the LEFT button to decrement any digit
• Change the Start Time to any beat/tick
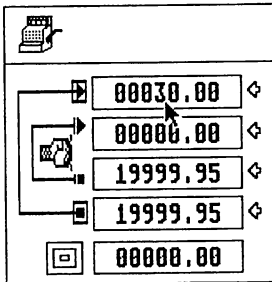
For example, if you wanted to start at beat 30, point to the Start Time and click on the second number left of the decimal with the RIGHT button until it reads 00030.00.

With precise pointing, you can increment and decrement by 10's, 100's, 1,000's or 10,000's or by individual ticks as well. Point to the column you wish to increase or decrease and click the appropriate mouse button.

Once you have set the Start Time AND activated Auto-Locate, the Start Time becomes the point at which EZ-Track Plus starts playing. There is an extremely slight lag between the time you press PLAY and the time EZ-Track Plus locates to the beat you've selected, whether the beat is 20 or 220 or 2,020.

Enable
Auto-Locate

```
[▶] 00030.00  ◀
[▶] 00000.00  ◇
[▪] 19999.95  ◇
[◻] 19999.95  ◀
[回] 00000.00
```

```
[■]  [▶]  [ ❚❚ ]
```

Sequence
Starts From
Start Time

```
[▶] 00030.00  ◀
[▶] 00000.00  ◇
[▪] 19999.95  ◇
[◻] 19999.95  ◀
[回] 00030.00
```

```
[■]  [▶]  [ ❚❚ ]
```
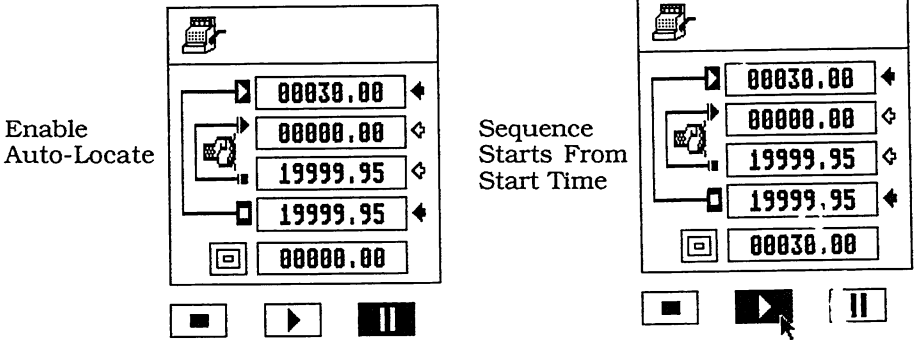
You can also set a Start Time "on the fly".   As EZ-Track Plus operations are all done in real time, if you point to the small arrow to the right of the Start Time and click as EZ-Track Plus is running, whatever time is displayed in the Counter will be automatically stored in the Start Time. By clicking the LEFT button, it will be the exact time to 96 ticks as displayed in the Counter; if you click the RIGHT button it will be rounded off to the nearest beat.

Every action described above is also applicable to the End Time. Although this Time is usually left at the highest possible number (it defaults to 19999.95), by setting it to another number greater than the Start Time, you can play back a given portion of a piece. In other words, the End Time signals the computer to Stop playing, just as the Start Time tells it where to begin playing.

To deactivate the auto-locate feature, click on either of the two auto-locate icons or the connecting line to the left of the Start/End Times. The arrows to the right of the Times will become empty, signifying that the auto-locate function is disabled. Thus when you start EZ-Track Plus again it will begin at 00000.00.

Auto-Locate Functions:

Start Time ——

Enable/
Disable
Bar

End Time ——

Reset/
Cue

```
[▶] 0000.00
```

```
[▶] 0000.00  ◇
[回] 0000.00  ◀
```

Click Arrows to Set
Time:
W/Left Button for
Exact Time,
W/Right Rounded
to Beat

Counter
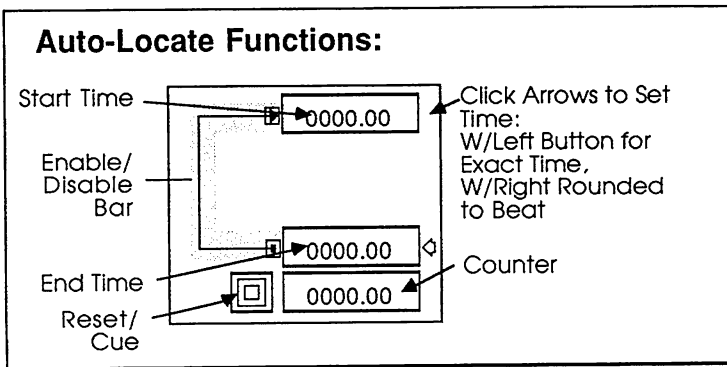
To ENABLE AUTO-LOCATE:
• Click on the Enable/Disable Bar (or Press * on the ST numeric keypad)

To DISABLE AUTO-LOCATE:
• Click on the Enable/Disable Bar again (or Press * a second time)

TO SET START or END TIMES:
• Point to the numeric column you wish to adjust
• Use the RIGHT button to increment the number
• Use the LEFT to decrement ,

TO SET START or END TIMES "ON THE FLY":
• Click on PLAY to start the sequencer
• Point to the arrow to the right of the counters
• Click LEFT to enter the exact time as it reads on the Counter
• Click RIGHT to enter the Counter number rounded off to the nearest beat

You can "Cue up" to the Start Time without automatically beginning to play. Set the Start Time and press Control SPACE BAR, or click on the Counter Reset button. EZ-Track Plus will locate to that point (you'll see the master counter change to that time) but won't start playing until you click the PAUSE icon, or the TAB key.

Keep in mind, though, if you have any Note On events that fall on that locate point, they will trigger and keep playing until you start the sequencer up. It's usually a good idea then, if you're cueing up in this way, to select the auto-locate time 1 tick before the beat so you don't have any notes sounding.

When the Start Time is active and the Counter is Reset, the Counter will auto-locate to the Start Time. In other words, if the AUTO-LOCATE function is ENABLED, then whatever time is set as the Start Time also becomes the reset value for the Counter.

Overdubs

This is a fairly simple procedure, but is mentioned here as it is an important factor of analog recording, and there should be no confusion as to how this is achieved using EZ-Track Plus.

EZ-Track Plus is always in Record mode, but also plays back every track (provided, of course, they are not muted) whenever it is put into Play. This means that whenever you click on the PLAY/RECORD button, you will always hear your previously recorded tracks. As you are also in Record mode while you're hearing these tracks, this also means you can OVERDUB whenever you want to simply by playing the next part as EZ-Track Plus is running.

As soon as you've completed the overdubbed part to your satisfaction, select a track to assign it to and click on the KEEP button to store it on a track.

You can continue overdubbing as much as you want, simply storing each successive overdub to another track each time you've finished.

Punch-In / Punch-Out

Often, you'll find a need to correct a section in the middle of a track, either erasing it fully or replacing notes. EZ-Track Plus allows you to set two specific times in a track between which the sequencer will automatically re-record and replace the MIDI information with new data.
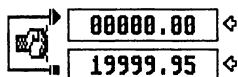
Punching in and out of a track is fully automated to allow you to concentrate on your performance rather than the Punch. EZ-Track Plus allows you to set your In and Out punch points in advance, start the recorder running, and put you in and take you out of record at just the right moments.

```
 00010.10  ◆
 00029.95  ◆
```
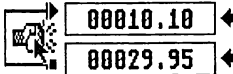
Pictured are the two times related to Punching. The top is the Punch-In Time, and the bottom is the Punch-Out Time. By clicking on the Punching Glove, punch "impact marks" indicate the Punch times are activated.

Select a track to Punch. You'll need to activate Punch BEFORE you choose a track. When you select a track to Punch, that track will become reverse highlighted. You can only Punch on one track at a time, so you will always have only one track reverse highlighted.

```
01: Punch This Track  ⇧     ▨ 01%
◆02: Save It Here      ⇧       00%
03:                     ⇩       01%
04:                     ⇧       00%
```
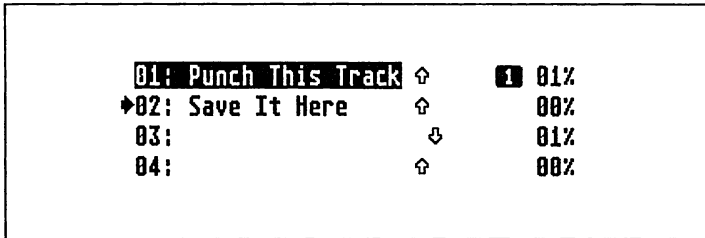
To Set The Punch-In Time:
• Point the mouse at the numbers within the Punch-In Time
• Use the RIGHT button to increment a digit
• Use the LEFT button to decrement a digit
• Change the Punch-In Time to any beat/tick

If you want to Punch-In at beat 40, click on the 10's column digit with the RIGHT button until it reads 00040.00 If you are precise in your pointing, you can increment/decrement by 10's, 100's, 1,000's or 10,000's or by individual ticks as well. Point to the column you wish to increase or decrease and click the appropriate mouse button.

Punch-Out times are set the exact same way as Punch-In Times. The Punch-Out Time must be greater than the Punch-In Time, but if you inadvertently make it smaller, when EZ-Track Plus begins playing it will change this to the same time as the Punch-In time. Although nothing will occur, you won't lose any track information either. If this happens, reset the Punch-Out Time and start Play again.

You can also insert a timing location into the Punch counters "on the fly", as you do with the Auto-Locate function. As EZ-Track Plus operations are all done in real time, if you point to the small arrow to the right of the either Punch Time and click the mouse button as EZ-Track Plus is running, whatever time is displayed in the Counter will be automatically stored in the Punch Time. By pressing with the LEFT mouse button, it will be the exact time to 96 ticks; if you press with the RIGHT button it will be rounded off to the nearest beat. This makes marking punch points very easy, as you can note the In and Out locations while you're listening to the track.

EZ-Track Plus also automatically turns Notes Off when it punches in the middle of a sustained note, so you don't have to worry about finding the precise Out point just after a note is ended.

To deactivate Punch, point the mouse at the Punching Glove and click. The arrows to the right of the counters will become empty and the glove will return to normal, signifying that Punch is disabled.

Because Punching is a recording process, **the information is stored in the Record Buffer and requires that you assign it to a track when you're finished**. This means that your original track is always safe from any punches you may attempt, providing that you place the music you've just punched to another track location. This is another example of non-destructive editing: you can run the same punch over and over again without fear of losing your original music, and when you're satisfied, store it on another track.

Note:
While Punch is enabled, you can only click *to the left* of the track number when Selecting a Track for saving.

To Enable Punch-In/PUNCH-OUT:
• Click on the Punching Glove (or press / in the upper right corner of the numeric keypad)

To Disable PUNCH-IN/PUNCH-OUT:
• Click on the Active Punching Glove (or press / a second time)

To Set PUNCH-IN and/or PUNCH-OUT TIMES On The Fly:
• Click on PLAY to start the sequencer
• Point to the arrow to the right of the counters
• Click the LEFT mouse button to enter the exact Counter time
• Click the RIGHT button to enter the Counter time rounded to the nearest beat

To Punch A Track:
• Make sure you can see the Cash Register icon before you begin
• Set the Punch-In Time
• Set the Punch-Out Time
• Enable Punch Mode
• Optionally set the Start and End Auto-Locate Times
  and Enable Auto-Locate
• Click in the Track Name area of the track you want to punch
  This becomes the Punch Source Track

- Click on PLAY
- The KEEP button highlights and the sequence starts playing
- As the sequence plays, the information from the Punch Source Track is copied into the KEEP Buffer
- Any information in the KEEP Buffer that was previously on the Punch Source Track between the Punch-In and Punch-Out Times is erased. If anything is played between these two times, it is recorded in real time as it is played.
- When you are finished, click on STOP

- Click to the left of the track number to select a Punch Destination Track

```
01: chord groove    ⇧    ⑤ 02%
02: solo lead        ⇧       01%
03: bass             ⇧    ⓵P01%
◆04:                 ⇩       00%
▶05:                 ⇩       00%
  06:                ⇩       00%
  07:                ⇩       00%
```

- If you select the same track as the track you Punched on, the information previously on that track will be replaced with the new information.
- If you selected a different track, make sure to turn off the Punch Source Track to hear the new edit
- Click on KEEP to save the information in the KEEP Buffer

Notes For Punch-In/Punch-Out

- *To be able to KEEP the punched result, you must either wait for the counter to pass the Punch-Out Time, or press STOP (or PAUSE).*

- *After you KEEP a punched result, the Punch feature is automatically deactivated. If you want to do another punch right away, you will need to re-enable Punch.*

- *Once you PLAY or Locate, you cannot select a different track to Punch-In on, unless you deactivate and reactivate Punch (by clicking twice on the Punching Glove).*

- *Punch can also be used to erase a section of a track, without recording any new information; the only restriction is that the Punch-In Time must be set past the zero Counter setting (ie., 00000.01 or greater).*

Tempo & Metronome

Directly below the version number you'll see a quarter note, an equal sign and a number, representing Beats Per Minute. Tempo adjustment is fairly easy: by pointing at the number itself and pressing the RIGHT or LEFT mouse buttons, you can increment or decrement the Tempo in small steps. By pointing at the quarter note and pressing the RIGHT or LEFT mouse buttons, you can increment or decrement the Tempo by a wider margin.
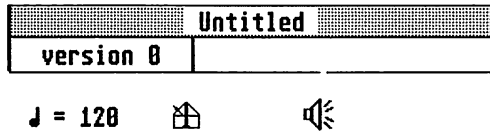
The Metronome icon is directly to the right of the Tempo indicators. A speaker icon exists to control the playback of a click: if you want to toggle it on or off, simply point at it with the mouse and click.
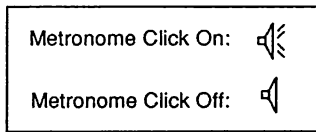
To Adjust The Tempo:

For Coarse Adjustment	• Click on the Quarter Note OR • Press Shift > or Shift <
For Fine Adjustment	• Click on the Tempo Value OR • Press > or <

- To Increase the Tempo: Click the RIGHT button OR Press the < key
- To Decrease the Tempo: Click the LEFT button OR Press the > key

Setting The Tempo: Slower   Faster

♩ = 120

Click here   Click here
for coarse adjustment   for fine adjustment
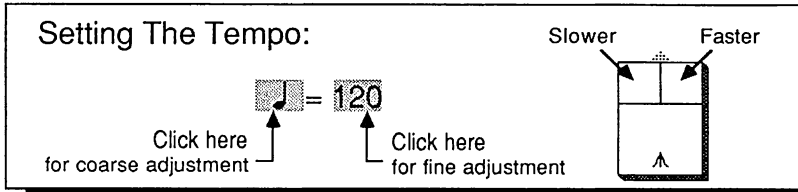
To Toggle The Metronome ON/OFF:
- Click on the speaker icon to the right of the metronome
OR
- Press ' (apostrophe) on the ST keyboard

Step Recording

Another method of recording called STEP Recording is available. This means you record your music in non-real-time. You control the advancement of the beat or fractions of a beat directly. One quarter-note beat is equal to 96 ticks (the numbers to the right of the decimal point).

Step Recording is tedious work, but useful in a variety of applications (tight drum rolls for instance). As EZ-Track Plus is alway in record mode when playing, the master Counter can also be used to Step through a recording.

Single Step Modes:

Click here
to advance by 1 beat (♩)

Click here with RIGHT button
to advance by 16th Notes

`0000.00`

Click here
to reset to zero

Click here with LEFT button
to advance by ticks
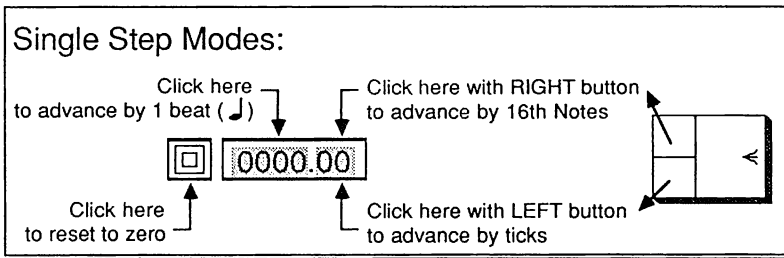
You can also control Counter advancement from the ST keyboard:
The / key advances by 24 ticks (16th notes)
Control Tab advances by individual ticks
Shift Tab advances beat by beat

As you advance the counter, play a note and hold it down as long as your music dictates. If you're going to play a quarter note and you're advancing the counter by 16th notes, you'll have to hold the instrument's key down for 4 movements of the counter (four 16ths = one Quarter note). This gives you very precise control over what you're entering, although its usefulness is limited.

Table Of Step-Entry Note Value Equivalents	
Note Value	
Advance Clock By This Amount	4 2 1 *Beats* 96 64 48 32 24 16 12 08 Ticks

Note:
You will hear music on tracks play as you slowly advance through the piece. By noting when the notes occur you can quickly and precisely Punch In and Out to make corrections.

FILE MANAGEMENT

Song files are stored on the standard 3.5" disks your Atari ST uses. Saving and recalling songs and even portions of song files are relatively simple operations.

Formatting A Disk

When a disk is fresh out of a box, it needs to be formatted. Different computer manufacturers use different operating systems, so disks formatted on one brand of computer won't be able to be used on another type.

Before saving song files, you'll need to format a disk. If you already have a formatted disk, there's no need to reformat it; especially since when you format, *it erases all the information you have stored on a disk.*

To FORMAT A Disk (From Within EZ-Track Plus):
- Select Format Disk from the File menu
- A dialog box appears, warning you that formatting will erase all the information on a disk and verifying you want to do this
- Click on the YES box to continue.

```
┌──────────────────────────────────────┐
│  ▽   Formatting will ERASE all the   │
│ ⧹?⧸  information on the disk.  Are    │
│  ▽   you SURE you want to do this?    │
│                                       │
│                                       │
│          │ Yes │  │Cancel│            │
└──────────────────────────────────────┘
```
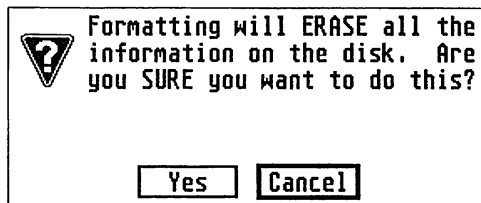
- Place a blank 3.5" disk in the drive
- If you have two drives, choose which one you use
- Another dialog box appears, asking you which drive and format (single sided, which gives you approximately 360K worth of disk space or double sided, bringing available disk space to 720K) you care to use
- Choices are inverse and can be changed by clicking on the options
- Once you're ready to format the disk, click on the Format box.

```
Format Disk:

        A    B

Single-Sided  Double-Sided

   Format     Cancel
```
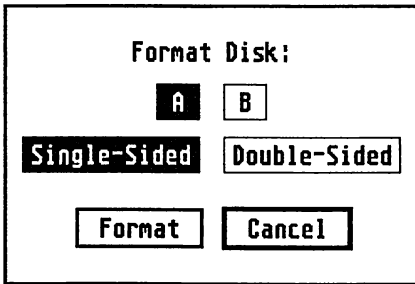
As the disk formats you'll see the drive light come on and hear a whirring sound. This will continue until disk formatting is complete.

Current Drive

If you have more than one drive or a RAM disk, EZ-Track Plus can store song files to one of the additional drives. If you have a hard disk, it can be divided up into several partitions (C through P depending on the size of your disk).

To Set CURRENT DRIVE:
- Select Current Drive from the File menu
- The dialog box that appears shows which drive is the Current Drive
- Type in the letter of the new desired drive (B, C, etc.)
- Click OK or press Return

Your files will now be stored to or recalled from the new current drive.

```
Current disk drive:  A

     OK        Cancel
```
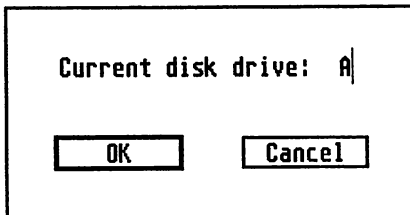
Saving Song Files

All the MIDI information you have recorded along with many option settings you've altered are stored in the song file. This means Tempo settings, MIDI channel assignments and any other information particular to the setup of the music you're saving will be included in the saved file. (Sync Type, Auto-Locate, Punch, Input Filters, Locate Method, Quantize Method, and Whole vs Region settings are not saved.)

To SAVE A Song File:
• Select Save As from the File menu
• A window will appear, prompting you to type in a name for the file you want to save. This can be any 8 character name, providing you follow the normal file naming rules contained in your Atari Users manual. The **.SNG** extension will automatically be added to the file. **DON'T TYPE ANYTHING AS AN EXTENSION (3 CHARACTERS AFTER THE PERIOD)** UNLESS YOU FULLY UNDERSTAND HOW TO USE THE ITEM SELECTOR BOX.
• When you're ready to save it, click OK or press Return

Note:
When you save a song a second time using the Save As option, you'll notice the previous name is automatically entered in the selection box from the last time you saved the file. This makes it easy if you want to save it under the same name. If you want to save the song as a different filename, press Backspace or ESC (Escape) first to clear the previous name. Practice typing a different name using a test song to see what happens. Understanding this process can save frustation later knowing the file is saved correctly.

```
 ITEM SELECTOR

Directory:
A:\*.SNG_____
 ┌────────────────┐
 │▓   *.SNG   ▓│  Selection:
 │                │  NEWSONG .SNG|
 │ MOONJIG .SNG  ⇧│
 │ SIMPSAMP.SNG   │
 │ _____._____ │
 │ _____._____ │
 │ _____._____ │    ┌──────────┐
 │ _____._____ │    │    OK    │
 │ _____._____ │    └──────────┘
 │ _____._____ │    ┌──────────┐
 │ _____._____ ⇩│    │  Cancel  │
 │                │    └──────────┘
 └────────────────┘
```
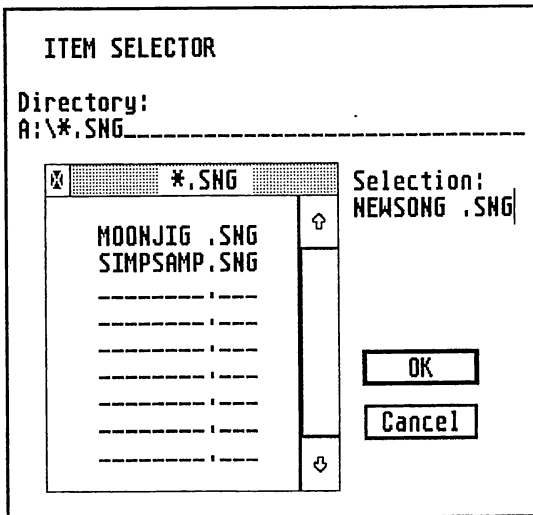
< Enter your song file name under the word **Selection**.

DO NOT ENTER YOUR SONG FILE NAME UNDER THE DIRECTORY LINE; THIS IS RESERVED FOR OTHER ITEMS.

Update

Once you've saved a file, there is a shortcut way to update it. This speeds up the process of regularly saving your work as you are writing and developing it, a good idea in every case. *The Update function only becomes available after you've saved a file until you Load a new file or Erase the Song.* This is set up so you can't inadvertently alter or save to the wrong file.

When working on important material (usually most of the time), it is *recommended* that you Update your Song every 10 minutes or so. A single power failure could ruin your entire session!

To UPDATE A Song File:
• Select Update from the File menu OR press Alternate U

Your work will automatically be updated in the same file, without you having to go through the process of naming it or clicking on its already existent name. Updating is purely a shortcut that saves a few mouse moves for you, and lets you easily update the information in a previously saved file.

Loading Song Files

You can recall any **.SNG** file from disk in much the same way as you save them.

To LOAD A Song File:
• Select Load from the File menu
• A dialog box will appear, warning you that when you load in a new song file, you will be erasing the song now in memory

```
┌─────────────────────────────────────┐
│  ◆!  Loading a new song file will    │
│      erase the song now in memory.   │
│                                      │
│                                      │
│         [   OK   ]  [Cancel]         │
└─────────────────────────────────────┘
```
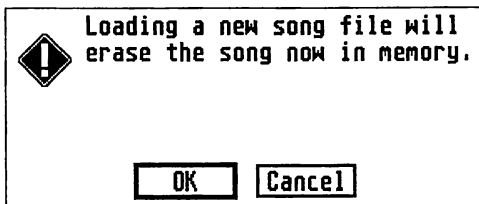
• If you want to save the current file to disk, click Cancel and save it
• Otherwise, click OK or press Return to continue

An Item Selector box appears with a menu of the **.SNG** files on the disk that you can load.

```
ITEM SELECTOR

Directory:
A:\*.SNG_____

┌────────────────────┐
│ ▨▒▒▒▒▒ *.SNG ▒▒▒▒▒▒ │   Selection:
├──────────────────┬─┤   MENDPRL1.SNG
│ ▨ AUTO____.___   │⬆│
│   5SONGS  .SNG   │ │
│   MENDPRL1.SNG   │ │
│   MOONJIG .SNG ↖ │ │
│   QUESTION.SNG   │ │   ┌──────────┐
│   SIMPSAMP.SNG   │ │   │    OK    │
│   _____:___   │ │   └──────────┘
│   _____:___   │ │   ┌──────────┐
│   _____:___   │⬇│   │  Cancel  │
└──────────────────┴─┘   └──────────┘
```
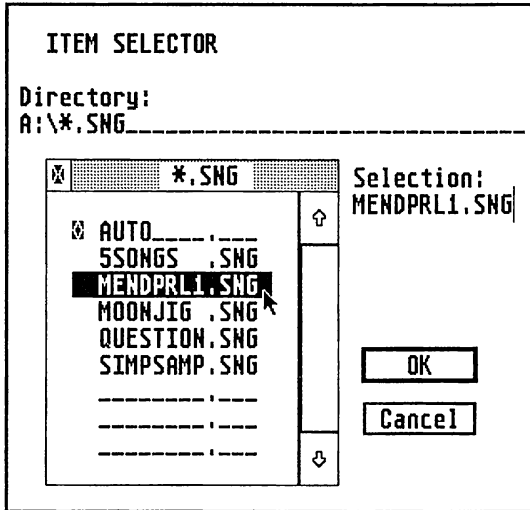
- Click on the song name you want to load
- The name will be transferred to the Selection line
- If necessary, scroll through the window by clicking on the arrows to the right of the small window
- Once you have selected the file you want to load, click OK
- The disk drive will whirr for a few seconds and the song file will be loaded in memory.

Note:
Song files saved with the original EZ-Track can be loaded into EZ-Track Plus and vice versa. Song files created with EZ-Track Plus can be loaded into any of the MidiTrack ST Series of MIDI Recorders (SyncTrack, SmpteTrack). Songs files created with MidiTrack ST can be loaded into EZ-Track Plus *if they don't have special track types (Chains, Tempo, Meter, etc.) and only use the first 20 tracks.*

```
┌──────────────────────────────────┐
│  🛑  Song contains track types   │
│      (such as chain, tempo, meter,│
│      or shadow) not compatible    │
│      with EZ-Track Plus.  You may │
│      want to try Import Track...  │
│              ┌────┐               │
│              │ OK │               │
│              └────┘               │
└──────────────────────────────────┘
```
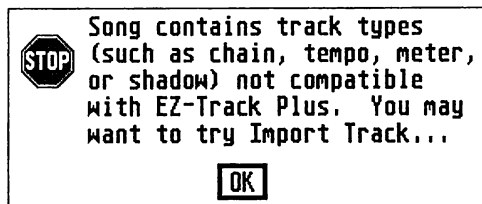
Deleting Files

You can delete any file you want from a disk, including files with other than an .SNG extension. A good example of when to use this is if you don't have any blank disks handy, and the disk you have been using to save your work is now full. By deleting old versions of songs, backup files (with an extension of .SBK), or unneeded files, you can create room on the current disk for saving your song file.

To DELETE A File:
- Select Delete from the File menu
- A window appears with a menu of all files on the current disk
- Click on the file you want to delete

```
ITEM SELECTOR

Directory:
A:\*.*_____

┌─────────────────────┐
│ ▨ ▒▒▒▒▒ *.* ▒▒▒▒▒     │   Selection:
│ ┌─────────────────┐⇧│   MY_WORST.SNG|
│ │  MY_BEST .SNG    │ │
│ │  MY_FIRST.SNG    │ │
│ │  MY_WORST.SNG    │ │
│ │  _____:____   │ │
│ │  _____:____   │ │   ┌──────────┐
│ │  _____:____   │ │   │    OK    │
│ │  _____:____   │ │   └──────────┘
│ │  _____:____   │ │   ┌──────────┐
│ │  _____:____   │⇩│   │  Cancel  │
│ └─────────────────┘ │   └──────────┘
└─────────────────────┘
```

- The name transfers to the Selection line
- If necessary, scroll through the window by clicking on the arrows to the right of the small window
- Select the file you want to delete
- Click OK
- A warning dialog box will appear, verifying your desire to delete the selected file
- If you are satisfied with your selection, click Delete
- The disk drive will whirr for a few seconds and the selected file will be permanently deleted from the disk

```
┌──────────────────────────────────────┐
│  ▼?   Delete file: MY_WORST.SNG ?     │
│                                        │
│                                        │
│           ┌────────┐ ┌────────┐        │
│           │ Delete │ │ Cancel │        │
│           └────────┘ └────────┘        │
└──────────────────────────────────────┘
```
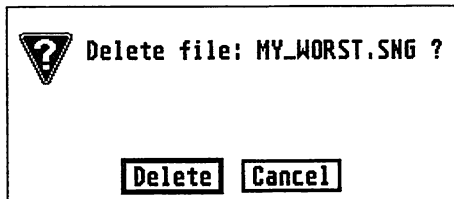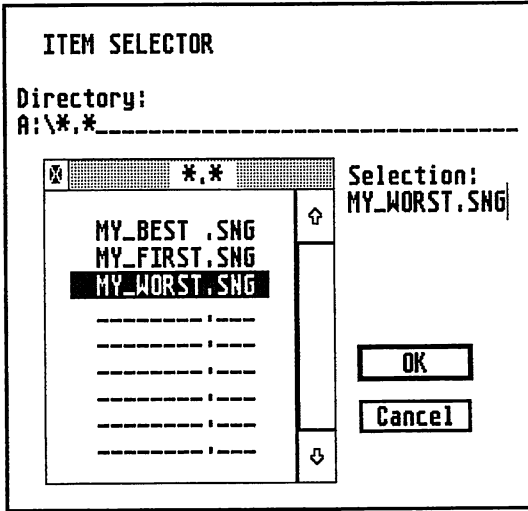
CHAPTER 4
MUSIC PROCESSING

In This Chapter:

- Selecting Tracks To Edit

- Editing Features:
    Quantize
    Transpose Track
    Whole vs Region

- Track Management:
    Copy Track
    Mix Tracks
    Unmix Track
    Track Delays
    Import Track

Key Words:

- Attack
- Duration
- Mix
- Quantize
- Unmix

SELECTING TRACKS TO EDIT

Most of the Edit Menu functions work the same way. That is, they all need some sort of initial track to perform the edit on, then a destination track or where the information will be stored needs to be selected. This function of selecting tracks is done when the following two prompt boxes are displayed (the boxes for Copy Track are used as an example):

Click with the LEFT button to select the original track:

```
┌───────────────┬───────────────────┐
│   1: Use LEFT │   2: Use RIGHT    │
│   button to:  │   button to:      │
├───────────────┼───────────────────┤
│ Select track  │      Select       │
│    to COPY    │ destination track │
├───────────────┴───────────────────┤
│       Use UNDO key to CANCEL       │
└────────────────────────────────────┘
```

Click with the RIGHT button to select the destination track:

```
┌───────────────┬───────────────────┐
│   1: Use LEFT │   2: Use RIGHT    │
│   button to:  │   button to:      │
├───────────────┼───────────────────┤
│ Select track  │      Select       │
│    to COPY    │ destination track │
├───────────────┴───────────────────┤
│  o    Use UNDO key to CANCEL       │
└────────────────────────────────────┘
```

When you see these prompts, moving the mouse up and down moves the Track Pointer (it scrolls the track display if you try to move beyond the displayed range of tracks). Moving the mouse left and right while in this mode has no effect.

Tip

Whenever the right half of this prompt is greyed out, the RIGHT button (as well as the Undo key) will CANCEL the edit .

To select the initial track, Click with the LEFT button. To select the DESTINATION Track, click with the RIGHT button. The following table shows all of the functions that use this type of dialog box request:

Function Found Here	Select Track To...
File Menu	Import ....Selecting this function first asks you to load a previously recorded song to load temporarily into memory. ***This will not erase the song currently in memory.*** Pick a track to import then select which track on the current song to save it on.
Edit Menu	Copy ....Pick one track to copy to another. Mix.......................................Pick up to 20 different tracks to mix together and save to 1 track. Unmix................................Pick a track to extract information and save the edit to another. Quantize...........................Pick a track to time adjust and save the edit to another. Transpose.......................Pick a track to transpose and save the edit to another. Adjust Velocity ....Pick a track to adjust its velocity and save the edit to another.

Note:
Anytime any one of the above prompt boxes are displayed, you can UNDO the function by pressing the UNDO key. This is a good safety precaution.

Using The ST Keyboard

All of the functions described above can also be accessed using the Atari ST keyboard. Use the proper key command to initiate the function, then use the following keys to move around and select tracks.

To...	Press This Key:
Move Up 1 track	UP ARROW
Move Down 1 track	DOWN ARROW
Move to a specific track	1 through 0, Shift 1 through Shift 0
Select a track (same as LEFT button)	Insert
Select a destination track (same as RIGHT button)	Clr Home

Press numeric Keys (1 - 0) to select tracks

Insert Key

Up Arrow Key

Clr/Home Key

Shift Keys   Left Arrow Key   Down Arrow Key   Right Arrow Key

Computer Keyboard Keys   Numeric Keypad
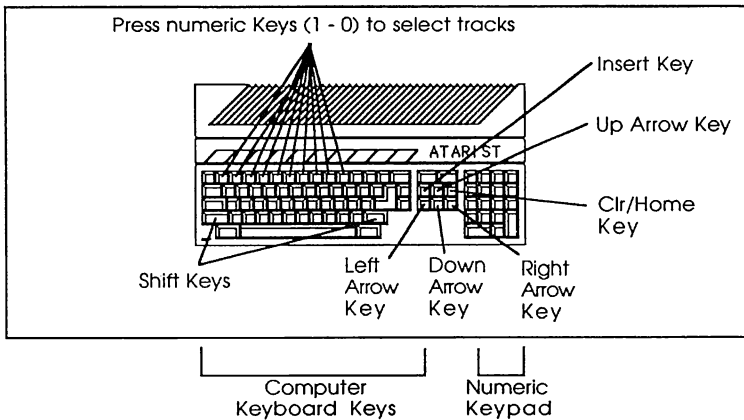
EDITING FEATURES

In addition to standard recording techniques as decribed in the previous sections, there are many methods of working with and manipulating music once you've got it assigned to tracks. Because all of the music you've recorded is stored within the computer as a series of numbers, the rearrangement or correction of your performance contains possibilities far beyond those offered by an analog multi-track system.

Music processing is similar in features to those that are available on word processors, but oriented and expanded for music production. For example, cutting and pasting paragraphs or sentences are common features on word processors; in a similar fashion, EZ-Track Plus allows you to cut *sections of music* and paste them elsewhere.

Quantization

Quantization takes the timing of your performance and distributes the note placement evenly across the track, based on a numeric value. The computer has recorded your original performance to a timing accuracy of 96 ticks per beat.

Not all of your notes will hit exactly on the beat; some will be a tick or two before or after the beat, some will be right on. When you quantize a track, the computer will automatically correct the timing to the nearest 16th note, or 8th or whatever you tell it. When you listen back, the performance sounds in perfect time.

It is important to select the right quantization factor. If you played a phrase with lots of 16th notes and you asked the computer to correct the timing to the nearest quarter note, you're going to get several 16th notes rounded off to a quarter note, playing one on top of the other. This works in reverse as well: choose too high of a resolution factor and the notes may be shifted to the wrong beat or fraction within the beat, playing noticeably late or early.

Because there are 20 tracks, there is plenty of room to experiment. Saving the Quantized result to a separate track is a good way to test it without destroying the original track. If the edit isn't quite right, you can always re-quantize the original track.

To QUANTIZE A Track:
• Select Quantize Track from the Edit menu
• A dialog box prompts you to select the Quantize value

The dialog box has the 9 most-common note values to choose from:
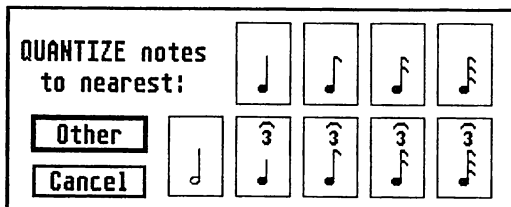
You are not bound to just these 9 values, they are just the most common. If you want to quantize to another value, click the box marked Other. You now have the option of entering your own resolution for any beat value between a half note and a 192nd note.
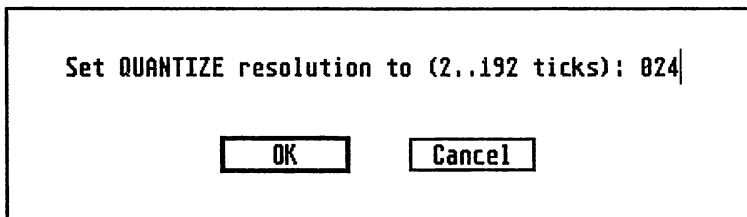
- Select the track you wish to QUANTIZE with the LEFT button
- The track selected will reverse highlight

```
01: Quantize This   ⇧   ε   01%
♦02: Save It Here    ⇧   ε   00%
03:                  ⇧       00%
04:                  ⇧       00%
```
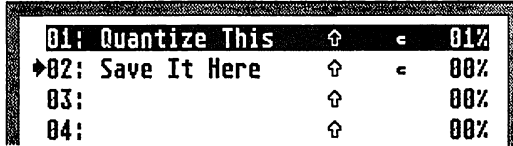
- Select a DESTINATION track
- Click the RIGHT button to save the editing

The track you quantized is now placed on the new track. If you chose a track other than the original, you still have the first, unquantized version available.

You can QUANTIZE a track back to itself, but the orginal will be erased if you do this.

To QUANTIZE A TRACK From The ST Keyboard:
- Press Control Q. This will bring you to the initial dialog box.

This table is used when you select **Other**, to equate various note values to numbers of ticks:

Quantize Note Value Equivalents								
♩	♩	♩³	♪	♪³	♪	♪³	♪	♪³
192	96	64	48	32	24	16	12	08
Ticks								

Transposing Individual Tracks

You can transpose the information on one track (up or down) in a range of one half-step to multi-octave jumps. This function actually changes the note information and saves it at the new value. (Global Transposing does not change the note information on each track; it just adjusts the values as they are sent out -- See Global Transpose, Chapter 6.)

To TRANSPOSE A Track:
- Select Transpose Track from the Edit menu
- A dialog box prompts you to select the amount and direction to transpose:

```
Transpose #  0 octaves,  0 half-steps
                  OK
```
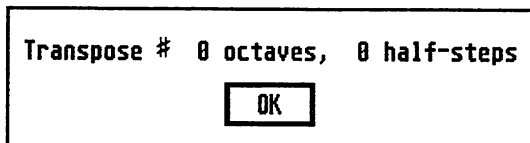
- Click on the # (or b) to select up (or down) transpose
- Click on the digits to select the amount to transpose by
- Click the RIGHT button to increase
- Click the LEFT button to decrease
- Click OK to continue

- Select the track you wish to TRANSPOSE with the LEFT button
- The track selected will reverse highlight

```
01: Transpose This  ⇧    ⊂4 01%
▶02: Save It Here    ⇧    ⊂  00%
03:                  ⇩    ⊂  00%
04:                  ⇧       00%
```
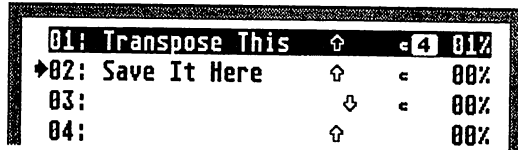
- Select a DESTINATION track
- Click the RIGHT button to save the editing

The track you transposed is now placed on the new track. If you chose a track other than the original, you still have the first, untransposed version available.

You can TRANSPOSE a track back to itself, but the orginal will be erased if you do this.

To TRANSPOSE A TRACK From The ST Keyboard:
- Press Control T. This will bring you to the initial dialog box.

```
  1: Use LEFT        2: Use RIGHT
  button.to:         button to:
  Select track         Select
  to TRANSPOSE     destination track
      Use UNDO key to CANCEL
```

Whole vs Region Processing

If you've ever played a passage with 8th note triplets, 16th notes, 16th note triplets and assorted other rhythms over the space of 8 bars, then you may have some trouble selecting a quantization factor that will correctly adjust each value. Or if you wanted to transpose 16 bars of a bridge because it works better a step and a half higher, but the phrase is in the middle of a track, what do you do?

EZ-Track Plus allows you to selectively apply music processing techniques to your music, so that you can define a Region to be affected, leaving the rest of the track unaltered. WHOLE vs REGION is an option that can be toggled ON and OFF so that you are prompted to select one or the other just prior to processing a track.

To Activate The WHOLE vs REGION Option:
• Select Whole vs Region from the Options menu
• Ask Which will prompt you asking whether the edit will affect the Whole Track or just the defined Region
• Selecting Assume Whole affects the entire track ONLY (no prompt)

```
Ask 'Whole or Region' for
every edit such as Quantize
or Transpose; or always
assume the Whole track is
to be edited?

┌──────────┐ ┌─────────────┐
│ Ask which │ │ Assume Whole │
└──────────┘ └─────────────┘
```

These functions are definable by a REGION:

Quantize Track
Transpose Track
Velocity Adjust*

*See Chapter 5

To Define A REGION:
• Set the Start and End Times
• Adjust the Start Time to the beat where you want to begin processing
• Set the End Time where you want it to cease

To Preview REGION Time Settings:
• Activate the Auto-Locate function
• Click on PLAY

```
Affect the WHOLE track,
or only the REGION
between the register's
start and end times?


  [ Whole ]  [Region]
```

To Use Region Processing:
• When the Whole/Region dialog box appears, click Region to affect ONLY the region between the Start and End Times
• If you want to affect the entire track, click Whole when prompted.

Notes For Region Time Settings
• *Quantize values and the Region time settings are interdependent. If you try to Quantize to quarter notes but the Region is defined from 4.35 to 8.67, you may not get the desired results because the Region is not defined exactly on quarter-note boundaries.* • *Transpose affects ONLY notes that start (Note On) within the Region.*

TRACK MANAGEMENT

EZ-Track Plus allows some very sophisticated track adjustments to offer even greater flexibility in arranging your music.

Copying Tracks

There may be times when you need to copy all of the information from one track to another. You may want to copy a track: to set different track delays on the copied tracks for creating an echo effect; to set each copied track to a different MIDI channel for creating a fuller sound using multiple instruments; or to reorganize tracks so they appear in a different order.

To COPY A Track:
• Select Copy Track from the Edit menu
• Select the track you wish to COPY with the LEFT button
• The track selected will reverse highlight

```
01: Original Track   ⇧   c   01%
♦02: Copy To Here     ⇧   c   88%
 03:                  ⇩   c   88%
 04:                  ⇧       88%
```

• Select an empty track
• Click the RIGHT button to save the copy

The track you selected is now a copy of the original track.

To COPY A TRACK From The ST Keyboard:
• Press Control C. This will bring you to the initial prompt box.

Mixing (Bouncing) Tracks

In multi-track situations, you may often find yourself wanting to mix several tracks together to better organize your music. Unfortunately, in the analog world, each time you combine tracks (bounce down), your sound quality deteriorates.

Thankfully, when you mix tracks together using EZ-Track Plus, there is no generation loss; it's merely a clever manipulation of numbers. You may combine tracks as often as you need without any sound quality change. If you need more than 20 tracks, you can MIX tracks together down to one destination track, and delete the source tracks.

To MIX Tracks:
• Select Mix Tracks from the Edit menu
• Select the tracks you wish to MIX with the LEFT button (1 to 20 tracks)
• Each track selected will reverse highlight

```
01: Mix This Track    ⇧    ◄1 01%
02: ...And This One   ⇧    ◄2 01%
03: ...And This One   ⇧    ◄3 01%
►04: Mix of 1, 2, & 3 ⇧        00%
 05:                  ⇧        00%
```

• Select an empty track
• Click the RIGHT button to save the mix

The tracks you selected are now combined onto one track.

If you combine tracks that are assigned to different MIDI channels, each of these tracks will retain their MIDI channels, even though all the information is stored on one track.

If you MIX this:

```
01: Keyboard      ⇧   ◄1  01%
02: Bass          ⇧   ◄7  01%
►03:              ⇧       00%
  04:             ⇩       00%
```

Track 1 contains Keyboards assigned to MIDI channel 1
Track 2 contains Bass assigned to MIDI channel 7
Track 3 is just about to be a Mix of Tracks 1 and 2

Track 3 will contain the keyboard part, which will still be assigned to MIDI channel 1, and the bass part, assigned to channel 7. If you mute tracks 1 and 2, and play back track 3, you will hear both the keyboards play on channel 1 and the bass play on channel 7.

You can also use this function **to permanently change the MIDI channel assignment of a track**. For example, let's say track 5 has information recorded from MIDI channel 1. You assign that track to play out MIDI channel 3. Now (for some reason) you want to permanently have all of the events on that track be set to MIDI channel 3. Select Mix Track from the MIDI menu and mix track 1 to track 1. This will change all events from channel 1 to 3.

Note:
If two tracks are assigned to the same MIDI channel, mixing them will combine the channel information, and it will be impossible to separate (unmix) the different parts back to their original tracks.

To MIX TRACKS From The ST Keyboard:
 • Press Control M. This will bring you to the initial prompt box.

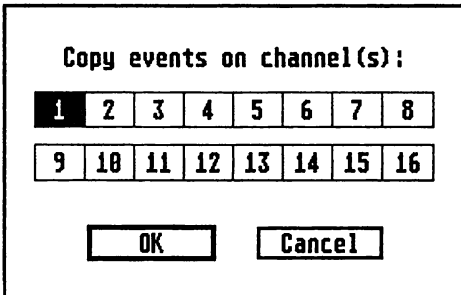| 1: Use LEFT button to:	2: Use RIGHT button to:
Select tracks to MIX	Select destination track
Use UNDO key to CANCEL	

Unmixing Tracks

You can unmix a track by MIDI channel assignment. What you'll be doing is extracting selected information from a track and placing that data on another track, *leaving the original one untouched.*

Each note is always recorded with a MIDI channel assigned to it. It is easy then, for EZ-Track Plus to search through a track and copy notes with specific MIDI channels, and store that information on another track.

Unmixing allows you to make additional individual edits (for example, Quantize a specific part) to previously-mixed tracks. You can also reorganize your song if you recorded tracks using multiple channels (from other sequencers or split keyboards).

To UNMIX A Track:
• Select Unmix Track from the Edit menu
• A prompt box appears with 16 MIDI channel numbers
• Click on the MIDI channel(s) you want to copy from the track you select
• Click OK

```
┌─────────────────────────────────────────┐
│                                          │
│      Copy events on channel(s):          │
│                                          │
│  ┌──┬──┬──┬──┬──┬──┬──┬──┐              │
│  │1 │2 │3 │4 │5 │6 │7 │8 │              │
│  └──┴──┴──┴──┴──┴──┴──┴──┘              │
│  ┌──┬──┬──┬──┬──┬──┬──┬──┐              │
│  │9 │10│11│12│13│14│15│16│              │
│  └──┴──┴──┴──┴──┴──┴──┴──┘              │
│                                          │
│      ┌─────────┐  ┌──────────┐          │
│      │   OK    │  │  Cancel  │          │
│      └─────────┘  └──────────┘          │
│                                          │
└─────────────────────────────────────────┘
```

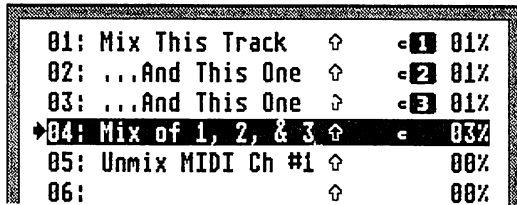The channel box(es) will reverse highlight to show you which ones you've marked. If you change your mind about any of them, just point and click a second time and you'll de-select the channel.

• Click on OK.
• Select the track you wish to UNMIX with the LEFT button

1: Use LEFT button to:	2: Use RIGHT button to:
Select track to UNMIX	Select destination track
Use UNDO key to CANCEL	

If you select a track that doesn't have several MIDI channels mixed in, there isn't going to be much of a result. You are extracting information that is assigned to specific MIDI channels that you previously combined.

From our example, select Track 4 to Unmix MIDI Channel 1's information.

```
01: Mix This Track    ⇧    ◄1 01%
02: ...And This One   ⇧    ◄2 01%
03: ...And This One   ⇗    ◄3 01%
►04: Mix of 1, 2, & 3 ⇧    ◄  03%
05: Unmix MIDI Ch #1  ⇧       00%
06:                   ⇧       00%
```

- Choose the track you want to Save the Unmixed information To with the RIGHT button (move the arrow selector to the destination track and click with the RIGHT button)

The information from MIDI channel 1 is now stored on track 5 (Track 5 is also a copy of track 1)

```
1: Use LEFT        2: Use RIGHT
   button to:         button to:
  Select track        Select
   to UNMIX       destination track
     Use UNDO key to CANCEL
```
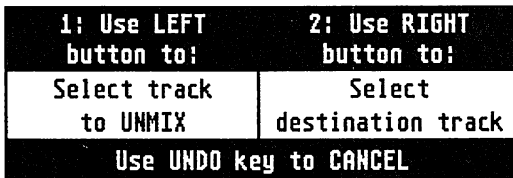
Track Delays

It helps to have complete control over where tracks sit in relation to each other. This can adjust the "feel" of the song. If you slide the Kick track just a little bit early so it plays more on top the the track, you'll find your music is much more "set in the groove".

Another use for this function may be to compensate for sounds that have slow attacks and therefore sound "late".

The Track Delay function allows you to offset each track in time relative to the other tracks. You see all 20 track delay settings at the same time.

To Set The TRACK DELAY:
• Select Track Delays from the Options menu
• A window appears covering the right side of the screen

```
01:  + 0
02:  + 0
03:  + 0
04:  + 0
05:  + 0
06:  + 0
07:  + 0
08:  + 0
09:  + 0                    Track
10:  + 0                    Delays
11:  + 0
12:  + 0                   ┌──────┐
13:  + 0                   │  OK  │
14:  + 0                   └──────┘
15:  + 0
16:  + 0
17:  + 0
18:  + 0
19:  + 0
20:  + 0
```

• To the right of each track number is a positive or negative number. This represents each track's relation to the downbeat of measures:

> **0 is right on the beat**
> **– plays earlier**
> **+ plays later**

• Point to a track's offset number
• Use the RIGHT button to increment or the LEFT button to decrement
• Setting the number in the negative range will make the track play earlier
• Setting the number in the positive range will make the track play later
• Each track can be adjusted early or late over a range from -90 to +99 ticks
• Once all of your track adjustments are set, click OK

If you MIX a track which has a non-zero Track Delay setting, the delay permanently changes the timing of the destination track. All other functions copy the Track Delay setting from the source to the destination track. The actual times within the track remain the same relative to the original track.

For example, if a track contains a note that starts at beat 00004.00, and a Delay of -10 is set for that track, it will play the note at 00003.86. The note event within the track is still at 00004.00, but the Delay value is affecting the playback. If you Copy the track, the resulting track will also have the note event at 00004.00 and a Delay value of -10. However, if you Mix the track, the resulting track will have the note event at 00003.86 and the Delay value will be set to + 0.

Importing Tracks

EZ-Track Plus allows you to merge separate songs and individual tracks. If you had a particularly favorite groove you'd recorded and saved, and wanted to add it underneath a new song you were working on, you could import the tracks from the original file into the current file and see how it sounded.

To IMPORT A Track:
• Select Import Track from the File menu
• An Item Selector appears with the directory of the song files on the disk in the Current Drive
• Select the song file which contains the one track you want to Import
• Click on the name of the file. The name is automatically transfered to the selection line.

```
┌─────────────────────────────────────────────┐
│                                             │
│   ITEM SELECTOR                             │
│                                             │
│  Directory:                                 │
│  A:\*.SNG_____     │
│                                             │
│   ┌──────────────────────┐  Selection:      │
│   │ ▨   ░░░*.SNG░░░░     │  5SONGS  .SNG|    │
│   │                  ┌─┐ │                   │
│   │ ▨ AUTO____.___   │⇧│ │                   │
│   │ ██5SONGS .SNG██▶ │ │ │                   │
│   │   MENDPRL1.SNG ↖ │ │ │                   │
│   │   MOONJIG .SNG   │ │ │                   │
│   │   QUESTION.SNG   │ │ │                   │
│   │   SIMPSAMP.SNG   │ │ │  ┌─────────────┐  │
│   │   _____.___   │ │ │  │     OK      │  │
│   │   _____.___   │ │ │  └─────────────┘  │
│   │   _____.___   └─┘ │  ┌─────────────┐  │
│   │                  │⇩│ │  │  Cancel     │  │
│   └──────────────────┴─┘ │  └─────────────┘  │
│                                             │
└─────────────────────────────────────────────┘
```
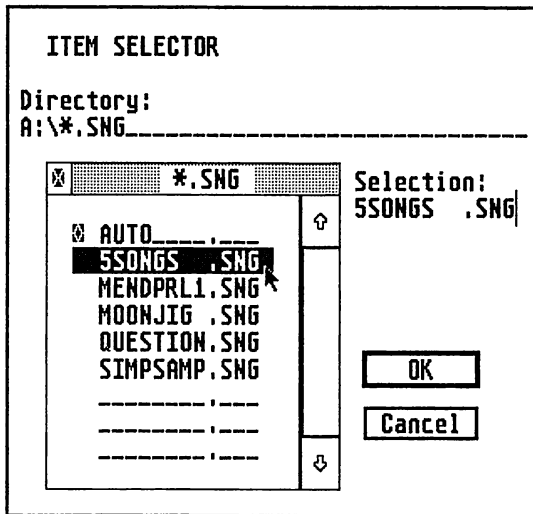
(Make sure the disk in the drive contains at least one song file with an extension of **.SNG**)

• Click OK

The song file quickly loads into EZ-Track Plus and superimposes the track titles over the current tracks. It has NOT replaced your current tracks, but is only providing you a means of seeing what tracks exist in the song file.

* Select the track you wish to Import
  The mouse now controls the track selection arrow
* Click the LEFT button once

```
 ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓
  01: Toccata & Fugue   ⇩   ▣ 01%
 ◆02: Bumble Bee        ⇩   ▣ 01%
  03: Sonatina          ⇩   ▣ 01%
  04: Piece #4          ⇩   ▣ 01%
  05: Maple Leaf Rag    ⇩   ▣ 01%
  06:                   ⇩     00%
  07:  Solo each track  ⇩     00%
  08:  then PLAY to     ⇩     00%
  09:  hear any one of  ⇩     00%
  10:  the five songs.  ⇩     00%
```

Almost immediately, the screen returns to the display of the current song.

* Choose an empty track to store the new Track
* Click the RIGHT button

The track you selected is read off of the disk and stored on the new track of the current file. All information is transfered including the track name and channel assignment. The new track arrives muted to avoid confusion with the current setting. To hear it, turn it ON (Unmute it).

```
 ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓
  01:                   ⇧     00%
  02:                   ⇧     00%
  03:                   ⇧     00%
 ◆04: Bumble Bee        ⇩  ◄▣ 01%
  05:                   ⇧     00%
  06:                   ⇧     00%
  07:                   ⇧     00%
  08:                   ⇧     00%
  09:                   ⇧     00%
  10:                   ⇧     00%
```

CHAPTER 5
ADVANCED MUSIC PROCESSING

In This Chapter:

- Velocity Adjust
- Meter/Metronome Option
- Glue Section (Cut & Paste)

Key Words:

- Glue Section
- Section
- Velocity

ADVANCED EDITING FEATURES

There are further options to improve or adjust your performance and increase the number of arranging possibilities.

Velocity Adjust

An adjustment you may want to make to the overall performance of your music is the relative volume of one track to another. In an analog multi-tracking situation, this is referred to as mixing. Although EZ-Track Plus is not an automated mixing console, you can, to a certain degree, adjust the relative levels of different parts and tracks.

Most synthesizers have velocity sensitive keyboards. Velocity sensing is a matter of detecting how fast you press down on the key from the top of the key to the bottom of the keypad -- a measurement of distance vs time. If you press a key fast, the instrument measures this as a maximum velocity of 127; the slowest pressing of a key registers as a velocity of 1. As a general rule, when you press slowly, the sound is softer, and when you press faster, the volume increases.

EZ-Track Plus allows you fine tuning of velocity information. This is dependent on how your instrument is programmed to respond to velocity. If an instrument you have is not velocity sensitive, you won't hear any difference; if it is velocity sensitive but the patch is not using the velocity parameters, again you won't hear any change.


Velocity Adjust Options:

Shift

Set

0   MIDI Velocity Range   128
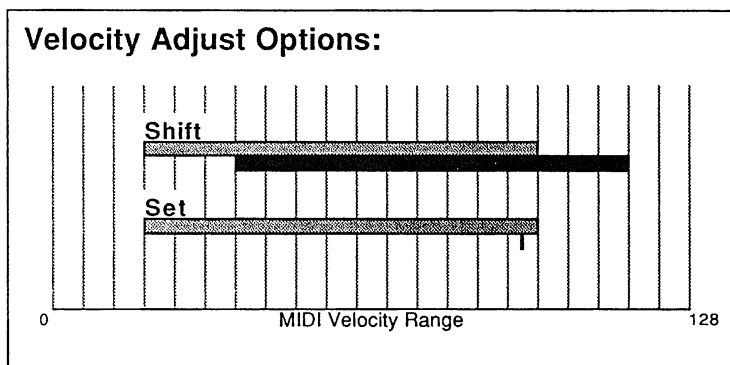
To ADJUST VELOCITY:
• Select Velocity Adjust from the Edit menu
• A series of dialog boxes appear giving you options to alter the velocity

```
Adjust which velocity?

[ Attack ]  [Release]  [ Both ]
```
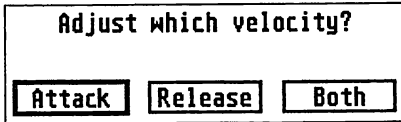
The first dialog box asks which velocity you want to adjust: Attack (how quickly you strike the key), Release (how quickly you let go of the key) or both.

Release velocity is dependent on whether or not your instrument is programmed to take advantage of this parameter. Some sounds can be made to ring out or change depending on how fast you let go of the key.
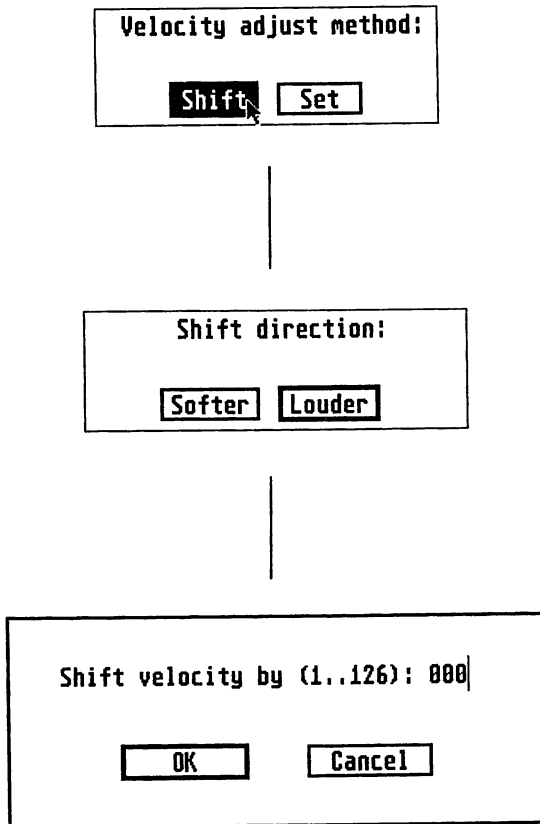
```
Velocity adjust method:

[Shift]  [ Set ]
```
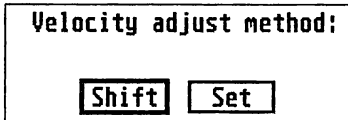
The next dialog box prompts you to select one of two available adjustment methods: SHIFT or SET.

SHIFT VELOCITY   shifts the overall velocity of the track softer/louder.

SET VELOCITY   sets velocity at a specific level for all notes on a track.
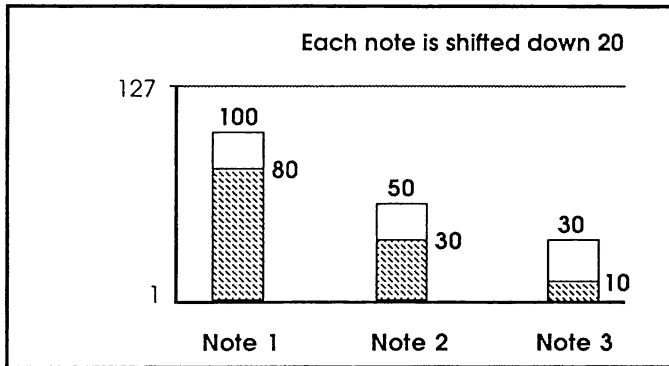
Selecting the SHIFT method provides a dialog box that requests which shift direction you want: SOFTER or LOUDER. Follow the map below for the Prompts and alternatives.
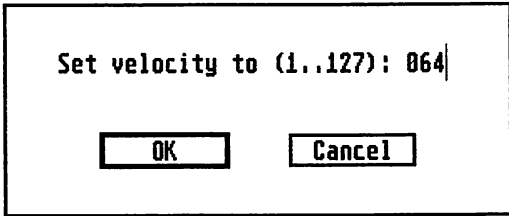
The following diagram shows the various paths you can take through the SHIFT Velocity dialog boxes:

```
┌─────────────────────────────┐
│ Velocity adjust method:     │
│                             │
│      ▐Shift▌  [ Set ]       │
└─────────────────────────────┘

        ┌─────────────────────────────┐
        │      Shift direction:       │
        │                             │
        │   [Softer]  [Louder]        │
        └─────────────────────────────┘

┌──────────────────────────────────────────┐
│                                          │
│  Shift velocity by (1..126): 000         │
│                                          │
│       [   OK   ]    [ Cancel ]           │
│                                          │
└──────────────────────────────────────────┘
```

SHIFT EXAMPLE
Let's take a track with 3 notes, the velocity of the first note being 100, the second note 50 and the third note 30. Set the Shift direction Softer by 20. The resulting note velocities would be 80, 30 and 10 respectively.

```
Set velocity to (1..127): 064|

        [  OK  ]        [ Cancel ]
```

1: Use LEFT button to:	2: Use RIGHT button to:
Select track to ADJUST	Select destination track
Use UNDO key to CANCEL	

Selecting the SET method simply means that you will adjust ALL velocities on the track to one value.

Once you've selected the method of velocity adjustment you desire, and set the necessary parameters, you have one last step. Using the Track selection arrow, point to the track you wish to adjust, and click with the LEFT button. The track will highlight to designate that it is marked. Choose the track you want to store the velocity adjustments to and click with the RIGHT button.
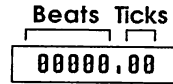
To ADJUST VELOCITY From The ST Keyboard:
• Press Control V. This will bring you to the initial dialog box.
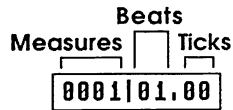
The Meter/Metronome Option

Beats Mode
Until now, all time displays
have appeared in Beats Mode:

Beats Ticks

$$\boxed{\texttt{00000,00}}$$

In this Mode, the Metronome always clicks at a quarter-note rate (one click per beat).

Meter Mode
Most musicians are familiar
with another form of timing
display, which EZ-Track Plus
calls Meter Mode.   It shows
you time in *measures*, beats
and ticks:

Beats
Measures   Ticks

$$\boxed{\texttt{0001|01,00}}$$

A time signature is displayed in this Mode, and the metronome clicks every quarter or eighth note, with an accent on the first beat of each measure.

To Set METER/METRONOME Parameters:
- Select Meter/Metronome from the Options menu
- A dialog box appears allowing you to set parameters regarding the Counter and Timing display information

```
Display:      02|    [  /4  ]   [  /8  ]

Metronome tick:      [ 1/4  ]   [ 1/8  ]

Lead-in Measures:    [ None ]   [  2   ]

Display Mode:  [ 00000.00 ]  [ 0001|01.00 ]

        [   OK   ]      [ Cancel ]
```

These functions (Display, Metronome tick, and Lead-in Measures) will only work if you are in Meter Mode (see explanation of each function on the following pages).

- Set the desired values for each of the options presented in the dialog box (See descriptions, next page)
- Click OK

To Set The Display Numerator Value:
- Use Backspace to move the cursor
- Type in a value between 2 and 16 if using a denominator of **/4**, or 2 and 17 if using **/8**

Display:

This is a time signature which affects all displayed time values and which is also displayed on the main screen. The first number (which is entered using the keyboard) is the numerator which has a range of 2 to 16 or 17. The denominator is selected by clicking on one of the 2 buttons.

Metronome Tick:

The two available settings allow you to switch between quarter-note or eighth-note clicking.

The setting (selected by clicking on one of the 2 buttons) is the note value for the metronome click. For example, if set metronome Display to **4/4** and click on **1/8**, you will hear a metronome click every eighth note with an accent on the first beat of each measure.

1	2	3	4	5	6	7	8
TICK	tock	tock	tock	tock	tock	tock	tock
TICK	tock	tock	tock	tock	tock	tock	tock
TICK	tock	tock	tock	tock	tock	tock	tock

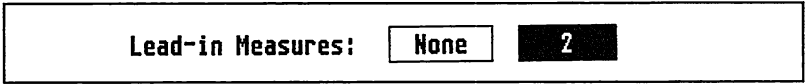If you set the Display to 2/4 and click on 1/4 you should hear someting like this:

1	2	1	2	1	2	1	2
TICK	tock	TICK	tock	TICK	tock	TICK	tock
TICK	tock	TICK	tock	TICK	tock	TICK	tock
TICK	tock	TICK	tock	TICK	tock	TICK	tock

Display: 04| **/4**   /8

Metronome tick: 1/4   **1/8**

Lead-in Measures:

Lead-in is a space of time before the music starts playing. EZ-Track Plus allows you to *renumber* the first 2 measures as Lead-in measures. Since this is only a renumbering, you can still record and play back during these measures (an example might be to use this for a pick-up measure).

If you use two Lead-in measures, the first measure is shown as **. . . 1,** the second as **. . . 2,** and the third (presumably the first measure of music) as **0001**.

```
┌──────────────────────────────────────────────────────┐
│                                                      │
│        Lead-in Measures:   │ None │   █2█            │
│                                                      │
└──────────────────────────────────────────────────────┘
```
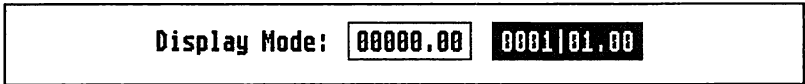
Note:
You can skip a Lead-in by setting the Start Time to **0001l01.00** and activating Auto-Locate. Setting Lead-in Measures to **None** will not remove time from the beginning of your piece.
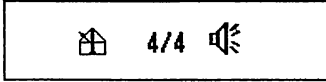
Display Mode:

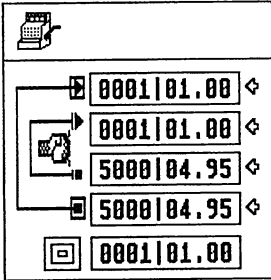The left choice is Beats Mode. The right choice is Meter Mode.

```
┌──────────────────────────────────────────────────────┐
│                                                      │
│      Display Mode: │ 00000.00 │  █0001l01.00█        │
│                                                      │
└──────────────────────────────────────────────────────┘
```

Using Meter Mode
If you choose to use Meter Mode, ALL counters will display as Measures | Beats.Ticks, and they will adhere to the basic meter settings.

A time signature is displayed to the right of metronome on the main screen.

This Mode changes the way time is displayed but does not change any previously-recorded information. If your preference is to work with beats as opposed to measure references, then click on **00000.00** in the Meter/Metronome option. If you find it easier working with a visual representation of Measures and Beats, it's available to you as well by selecting **0001 | 01.00** instead.

If you prefer to *always* work in Meter Mode, you can set this up easily using the **AUTOLOAD.SNG** feature. See Chapter 6.

Value Settings

|	
Beats Mode	Highest Value = **19999.95**
Meter Mode	Highest Value = **5000	04.95** (in **4/4**, with no Lead-in)
	Highest Value = **10000	04.47** (in **4/8**, with no Lead-in)
	Displayed As: **+++0	04.47**

Since there is only room to display a 4-digit measure number, any value over 9999 is shown as +++0. The purpose of having values that high is to be able to set the Punch-Out or End times to values you'll probably never reach, so it's not important if you can't see the exact value.

GLUE   SECTION

EZ-Track Plus can define any portion of a track as a Section. You can then Glue that Section to a new starting time.

Creating A Section

A Section is a two-dimesional "slice" of music. It consists of music between a start and end time, on one or more tracks.
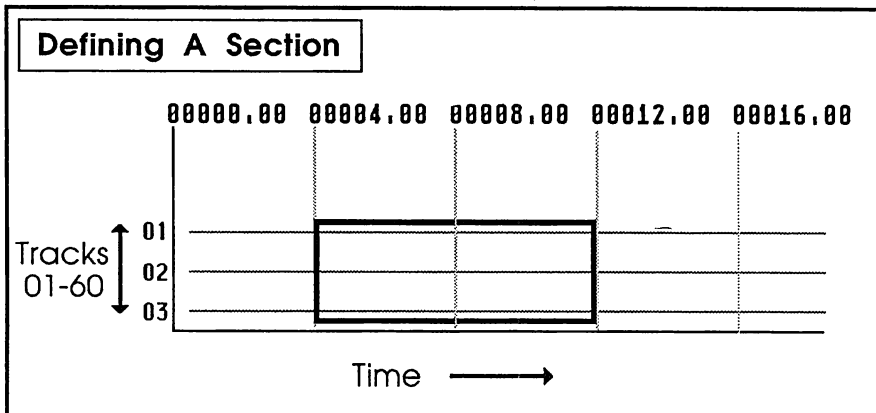
To Create A Section:
- Click on the Cash Register
  (This turns the Locate Display into the Section Display)
- Set the Start Time for the Section
- Set the End Time
- Select the track(s) you want to include by clicking on the Track Name

Below the Section Icon are the Start and End Times. Adjusting the top Time sets the Start point of the Section, adjusting the lower Time sets the End point. Click on each digit to set the time.

The End Time defines the End of the Section *but is not included* in the Section. In other words, the Section begins at the Start Time and continues *up to but not including* the End Time.

Once you've set the Start and End Times, you need to select the tracks you want to include in the Section -- up to 24 tracks.

To Assign Tracks To The Section:
- Click within the Track Name area
 (the tracks will reverse highlight)

To Remove Tracks From The Section:
- Click on a highlighted Track

Let's step through an example. This is the story so far...

We have recorded a drum part on track 1, a keyboard part on track 2, and a bass part on track 3. Assuming we are in Beats Mode, all 3 parts play from 00004.00 to 00012.00 (the end time defines the End of the Section BUT IS NOT INCLUDED IN THE SECTION). We'll call this part our Verse. What we've going to do now is create a Section, including these 3 tracks, and then preview it.
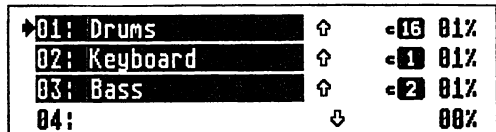
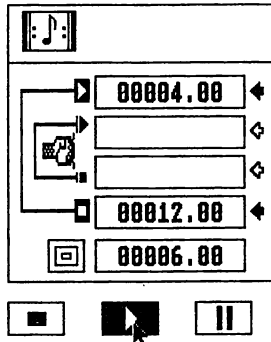• Click on the Cash Register to switch to Section Mode
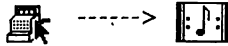
• Define the Start and End Times for the Section
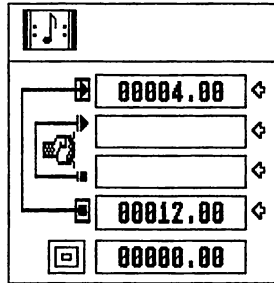
• Click on tracks 1, 2, and 3 to include them in the Section

• To preview the Section, activate Auto-Locate and click on PLAY

Setting Section Times

Section
Start
Time

Section
End
Time

▸ 00004.35

▸ 0001?.00

00004.35

Click Arrows to set
time to the current
Counter time:
• with LEFT button
to set the time to
the exact tick
• with RIGHT
button to round to
the nearest beat.

Counter Reset   Counter

Click on individual
digits to set times
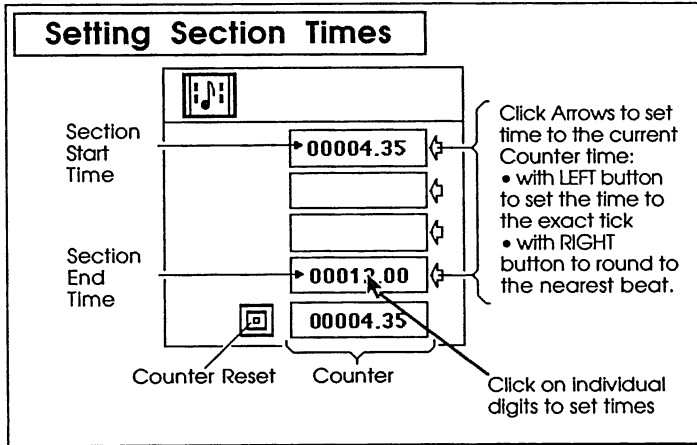
Notes For Defining The Section

• In Section Mode you still have the ability to Auto-Locate by clicking on the Auto-Locate Enable Bar.

• Make sure the Start Time is less than the End Time. Otherwise the Section will be given a length of 00000.

Cut & Paste (The Glue Section Feature)

Most word processing programs contain features that allow you to outline a
block of text and move or copy that block anywhere within the body of the
document. This type of cut-and-paste feature is mirrored in EZ-Track Plus
but implemented for music processing. You can select any start and end
points within multiple tracks (or a single track for that matter), and copy
this section to any other time location, early or late. As always, the original
tracks are unaffected, providing you store the pasted version on an unused
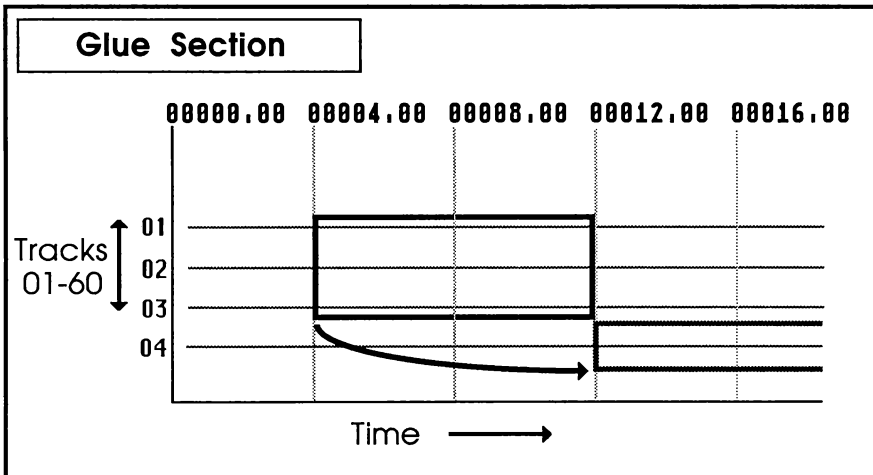track.

To Glue A Section:
• Define the Section
• Click on the Section icon (the Cash Register reappears)
• Set a Start Time where the copy of the Section will begin
• Select an empty track
• Select Glue Section from the Track menu
• Click OK

Note:
You must select the track BEFORE you proceed as you are not prompted to
select a Destination track. If you don't select the track you want to paste the
section to BEFORE you proceed to the next step, you'll have to start again.

To Glue A Section From The ST Keyboard:
   • Press Control G

Glue Section

```
                    00000.00   00004.00   00008.00   00012.00   00016.00


              01
Tracks
              02
01-60
              03

              04


                    Time ———→
```

Let's use our example from Create Section and Glue the 3 tracks so they all start at 00012.00 on another track. If this is done right, then our Verse will play 2 times, one after the other.

• The Section is already defined (from 00004.00 to 00012.00 including tracks 1, 2, and 3)

• If you are in Section Mode, click on the Section icon to return to the Cash Register
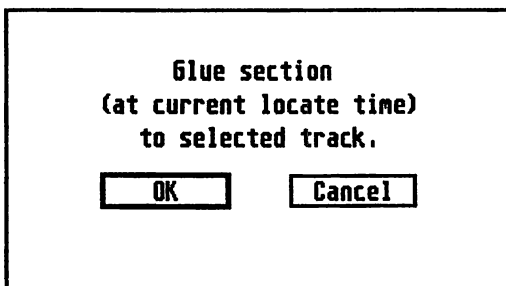

• Set the Start Time to 00012.00
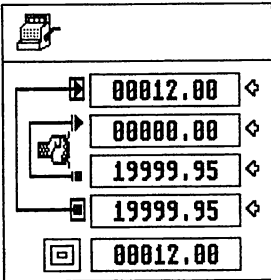
• Select a track (we'll use track 4 since it is empty)

- Select Glue Section from the Track menu
- Click OK

```
┌─────────────────────────────────────────┐
│                                          │
│              Glue section                │
│         (at current locate time)         │
│            to selected track.            │
│                                          │
│          ┌──────────┐    ┌──────────┐    │
│          │    OK    │    │  Cancel  │    │
│          └──────────┘    └──────────┘    │
│                                          │
└─────────────────────────────────────────┘
```

Notes For Glue Section
• It does not make sense to Glue a Section of 00000.00 length, nor does it make sense to Glue a Section with no tracks selected, because you will end up with an empty destination track. • Since a Section can contain multiple tracks, but Glue Section places the result on a single destination track, all the rules about Mixing regarding MIDI Channels apply. • Glue Section creates a new track which only contains a copy of the Section at the new Start Time. If you want to combine this copy with the original, use Mix Tracks (see Chapter 4). • You can Glue multiple copies of the Section at different Start Times fairly quickly. Set a new Start Time, select a new destination track, and select Glue Section again. After you've made multiple copies, you may want to Mix those tracks together.

CHAPTER 6
GLOBAL FEATURES

In This Chapter:

- Global Transpose
- GenPatch Accessory
- Multiple Instrument Setups
- MIDI Mode Messages
- MIDI Input Filters
- Naming A Song
- AUTOLOAD / AUTOPLAY Files
- Erasing A Song
- Punch & Quantize Methods
- Safety Features

Key Words:

- Global
- Local ON/OFF
- Mono Mode
- Omni ON/OFF
- Patch
- Poly Mode

Global features are functions which affect the overall performance of the program.   Some basic functions, such as Tempo adjusting and the Meter/Metronome option, have already been covered earlier in the manual. This chapter covers the remaining Global features.

GLOBAL TRANSPOSE

You can instantly transpose the key of the entire song by a range of 4 octaves, up or down by half-steps. This is a real-time control, meaning you can alter the key while the song is playing.
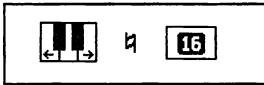
To Transpose The Entire Song:
• Point to the accidental symbol (it defaults to a Natural sign)
• Click the Right button
• The accidental now becomes a sharp with the number 1 next to it
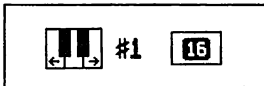
To Set The Amount Of Transpose:
• Click the Right button to increase the overall key by a half-step
• Click the Left button to decrease the overall key by a half-step
• A Sharp accidental appears when you are above the original key.
• A Flat accidental appears when you are below the original key
• The value shows you how far away from the original key you've transposed
• If you click the Transpose icon, you can transpose by an octave at a time

Changing the Pitch:

Click here to transpose by Octaves

Click here to transpose by Half-Steps

Lower   Higher

Click here to exempt a MIDI Channel from transposition
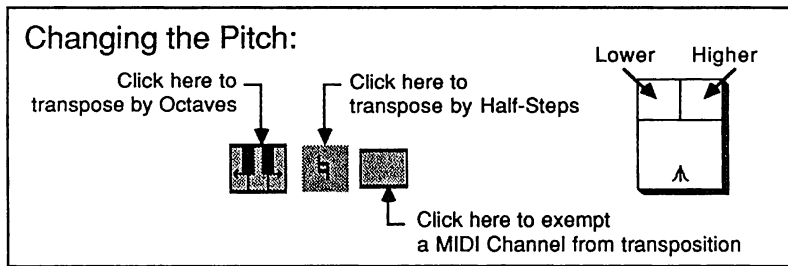
To GLOBAL TRANSPOSE From The ST Keyboard:
- Press the RIGHT ARROW Key to raise by a half-step
- Press the LEFT ARROW Key to lower by a half-step
- Press the Shift RIGHT or Shift LEFT ARROW Keys to transpose by an octave

Directly to the right of the Transpose indicator is a box with a MIDI channel number in it (the default is 16). Whatever MIDI channel is assigned in this box *IS NOT affected by global transposition.*

Most drum machines, while having built-in sequencers, can also be triggered via MIDI (like other instruments). When you use them this way, each drum sound is typically assigned to a particular note. If you were to Transpose a drum track, the wrong drums will play.

For example, let's say a kick drum is assigned to F1 and a snare to G1. If you Transpose up by 2 half-steps, the snare will play wherever the kick used to (some other drum sound may also play wherever the snare played previously).

By setting one MIDI channel to not be affected by Global Transpose, you can tune your drums to this channel and they will not be shifted with the rest of the music.

GENPATCH ACCESSORY

EZ-Track Plus comes with a desk accessory which allows you to load Hybrid Arts' GenPatch ST files without leaving the program. GenPatch ST is a generic patch storage program that will store patches from a variety of MIDI instruments. If you store your patches using GenPatch ST, then you'll find this accessory invaluable as your entire sound catalog is always accessible from your sequencer.

Notes For LOADING ACCESSORIES

The GenPatch (or any) Accessory will only be under the Desk menu if you properly load your disk. Accessories load into the memory of your computer when you first turn on your computer. The disk in the "loading" drive should contain all of the accessories you want to use.

When you turn on your computer, the loading drive boots the computer by first initiating the operating system and then looking at the load disk for ANY file with an **.ACC** extension. These are ACCESSORY files. It loads all of these files from the beginning of memory to as far into memory as there are accessories on the load disk. Keep in mind each accessory loaded uses up memory -- Note Memory for your sequence.

If an accessory you need is not on the load disk, you must insert the disk containing that accessory into the load drive and reset the computer. Keep in mind that doing this will clear all memory and begin the loading process again.

The EZ-Track Plus master disk contains the GenPatch Accessory file. So, if you properly load your master EZ-Track Plus disk, the GenPatch Accessory will load correctly.

To Use The GenPatch Accessory:
• Select GenPatch from the Desk menu
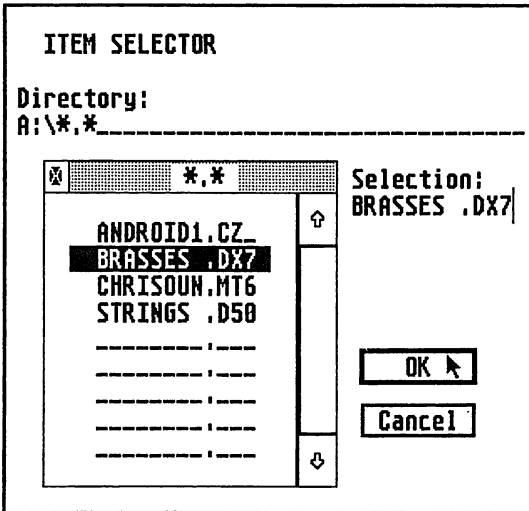• Place the disk containing your GenPatch file in the current drive

```
┌─────────────────────────────────────────────────┐
│ ▨ ░░░░░░░░░░░ GenPatch Accessory 1.3 ░░░░░░░░░░ │
│                                                   │
│  ┌──────────────────┐      ┌──────────────────┐  │
│  │  Load File (L)   │      │  Transmit (T)    │  │
│  └──────────────────┘      └──────────────────┘  │
│                                                   │
│                                                   │
│                                                   │
└─────────────────────────────────────────────────┘
```
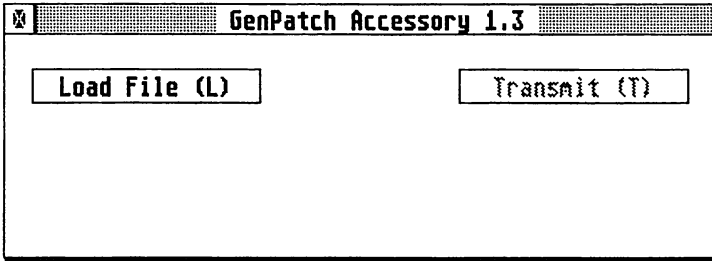
• Click on Load File (or press L)
• The directory lists all files (including GenPatch Files) that are on the current disk

```
┌──────────────────────────────────────────┐
│  ITEM SELECTOR                            │
│                                           │
│  Directory:                               │
│  A:\*.*_____     │
│                                           │
│  ┌──────────────┐  Selection:            │
│  │ ▨ ░░░ *.* ░░ │  BRASSES .DX7|         │
│  │          ⇧   │                         │
│  │  ANDROID1.CZ_│                         │
│  │  BRASSES .DX7│                         │
│  │  CHRISOUN.MT6│                         │
│  │  STRINGS .D50│                         │
│  │  _____:___│                         │
│  │  _____:___│   ┌─────────┐          │
│  │  _____:___│   │  OK  ▶  │          │
│  │  _____:___│   └─────────┘          │
│  │  _____:___│   ┌─────────┐          │
│  │          ⇩   │   │ Cancel  │          │
│  └──────────────┘   └─────────┘          │
└──────────────────────────────────────────┘
```
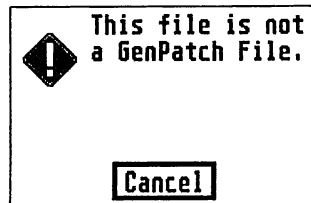
• Select the bank of sounds you want to load

• Click OK
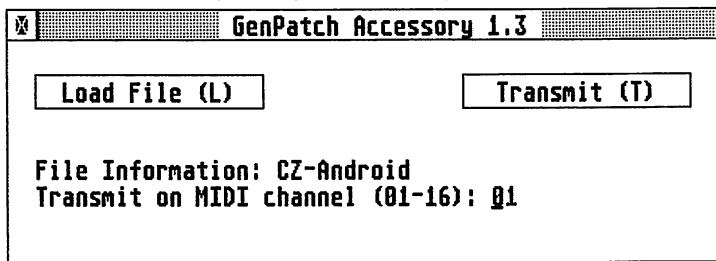
The file will load into the ST's memory.

If the file you attempt to load is not a GenPatch file, the following prompt will tell you this:

```
┌──────────────────────┐
│ ⚠  This file is not  │
│    a GenPatch File.  │
│                      │
│      ┌────────┐      │
│      │ Cancel │      │
│      └────────┘      │
└──────────────────────┘
```

Next you'll need to ensure that the instrument you're going to transfer the sounds to is properly prepared (correct MIDI channel, write protect off, etc). Refer to the particular instrument's owner's manual for specific transfer instructions.

* Once your instrument is set to receive, click on Transmit File (or press T)
* Some files may require additional information such as which MIDI channel to transmit on. **If this is the case, type in any needed information then Press Return**
* The GenPatch Accessory always numbers patches from 0 to 127

```
┌─────────────────────────────────────────────────────────┐
│ ▨ ▓▓▓▓▓▓▓▓▓▓▓▓ GenPatch Accessory 1.3 ▓▓▓▓▓▓▓▓▓▓▓ │
├─────────────────────────────────────────────────────────┤
│                                                         │
│  ┌─────────────────────┐      ┌──────────────────┐     │
│  │  Load File (L)      │      │  Transmit (T)    │     │
│  └─────────────────────┘      └──────────────────┘     │
│                                                         │
│                                                         │
│  File Information: CZ-Android                           │
│  Transmit on MIDI channel (01-16): 01                  │
│                                                         │
│                                                         │
└─────────────────────────────────────────────────────────┘
```

The mouse becomes a MIDI Plug telling you to wait a moment while the bank is being transmitted.

Your instrument is now loaded with the new sounds.

┌───┐
│   **GenPatch Desk Accessory Notes**   │
├───┤
│   │
│ • EZ-Track Plus will not store patches or banks of patches │
│ for you. The GenPatch Accessory is simply a convenient   │
│ method of utilizing and integrating Hybrid Arts' products │
│ with one another.   │
│   │
│ • CZ-Android and DX-Android Files can be converted to   │
│ GenPatch ST format. Once they are, you can transfer them │
│ using GenPatch Accessory WITHOUT NEEDING GENPATCH ST. The │
│ two different conversion programs are included with the   │
│ Android programs.   │
│   │
│ • Also, because this is a Desk Accessory, the patches can │
│ be loaded from within any program. For example, say   │
│ you're writing something using a word processor and you   │
│ want to practice something on your instrument using   │
│ different sounds than the ones currently in it. If the   │
│ GenPatch Accessory is loaded correctly, you can load new   │
│ sounds without having to Quit your word processor.   │
│   │
└───┘

MULTIPLE INSTRUMENT SETUPS

Using The Thru Function

If you are using more than one MIDI instrument with EZ-Track Plus, you may want to play and hear them using the Thru feature.

Multiple-Instrument Hookup:
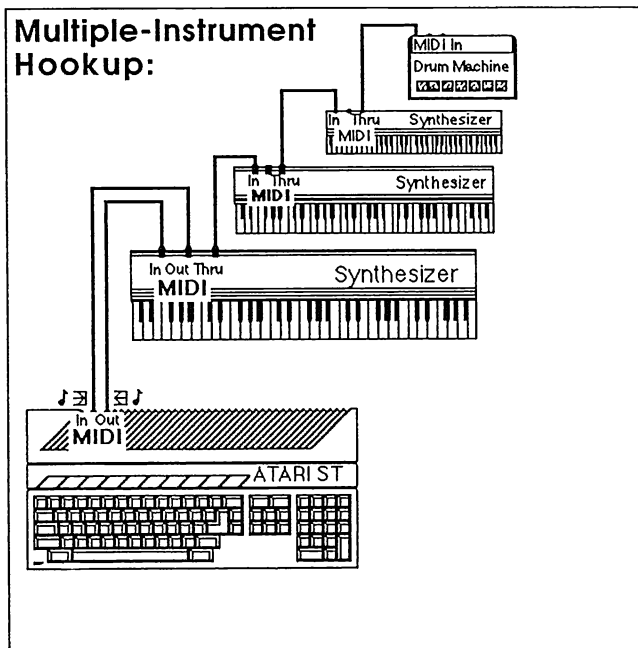
To Turn The Thru Function ON or OFF:
- Click inside the box to the left of the word Thru
- If the check is not there, when you click, it will appear. Thru is active.
- If the check is there, when you click, it will disappear. Thru is inactive.

Any instruments connected and tuned to the MIDI Channel shown (channel 2 in the example) can now be played from your main keyboard through the computer.
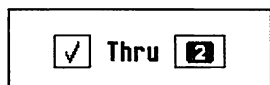
☑ Thru 🔳

If you set your instruments to different MIDI channels, you can adjust which one(s) you'll play by adjusting the Thru Channel.

To Adjust The MIDI Channel Number:
- Click on the MIDI channel number shown to the right of the word Thru
- Click the RIGHT button to increase it
- Click the LEFT button to decrease it

Using the example setting above, if you tune an instrument to MIDI Channel 2, you'll be able to hear both your main instrument play together with the other one set to MIDI channel 2.

Unchannelized Thru
There is one setting which causes the MIDI channel number to disappear. This represents a feature allowing you to send MIDI information *from* a controller that can send more than one MIDI channel at a time *Thru to* instruments set to those separate channels.

Example 1:   Using a keyboard that is capable of sending more than one MIDI channel at once, you can control different instruments set to corresponding MIDI channels.

Example 2:   Guitar controllers often send a different MIDI channel for every string. In this case, a useful application would be to use a synthesizer set to MONO Mode where each voice corresponds to a different string.

Local Control

Local Control ON / OFF is a MIDI function which allows you to separate your keyboard from its sound part. (This function is not available on all instruments.)

Instruments capable of turning Local Control OFF are equivalent to having two parts: a sound part and a keyboard part, both of these parts packaged in one unit.
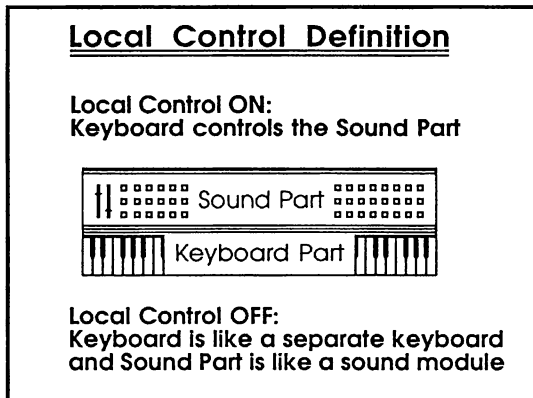
Turning Local Control OFF will separate the sound part from the keyboard part. This allows the sound part to play as a "module" while the keyboard part is triggering other instruments.

An example might make this more clear:

You have a keyboard (containing the Local ON/OFF function) set to Receive and Send on MIDI channel 1. You also have a rack module instrument set to Receive on MIDI channel 2.

You record a bass part that uses the sound from the keyboard. You now want to record a melody that uses the sound from the module.

While the sequencer plays the bass part (on the keyboard's sound part), you play the melody part on the kéyboard, using the Thru function to hear the melody on the module. But, with Local Control ON, you also hear the melody on the keyboard's sound part because it's internally connected.

Solution: set the keyboard to Local Control OFF. This effectively separates the two parts of the keyboard. Now when you play the melody, the keyboard only triggers the module sound. You can then record the module part at the same time the sequencer plays the sound part of the keyboard.
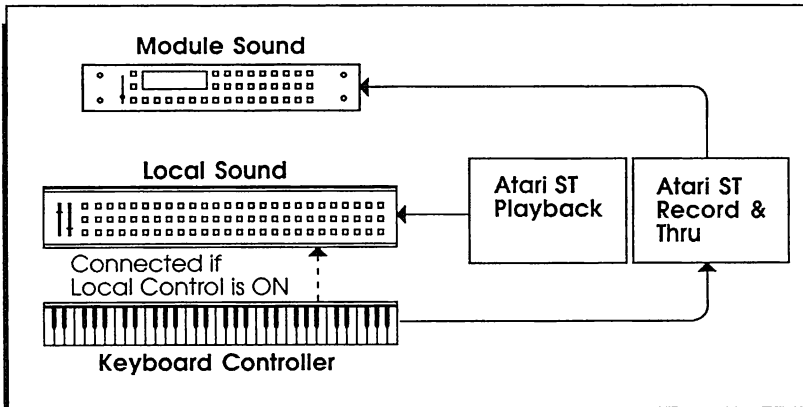
MIDI MODE MESSAGES

EZ-Track Plus allows you to send specific MIDI messages to your instruments. These messages are general modes included in the MIDI spec.

To Send MIDI Mode Messages:
• Select Send Mode Msg from the MIDI menu
• A dialog box appears with all the messages you can transmit
• First choose the MIDI channel on which to send the message
  (**All** will send the message on all MIDI channels)
• Click on the message to send it

```
┌─────────────────────────────────────┐
│                                      │
│  Select MIDI channel:  ▐ All ▌       │
│  ┌──┬──┬──┬──┬──┬──┬──┬──┐           │
│  │ 1│ 2│ 3│ 4│ 5│ 6│ 7│ 8│           │
│  └──┴──┴──┴──┴──┴──┴──┴──┘           │
│  ┌──┬──┬──┬──┬──┬──┬──┬──┐           │
│  │ 9│10│11│12│13│14│15│16│           │
│  └──┴──┴──┴──┴──┴──┴──┴──┘           │
│                                      │
│  Select MIDI mode to send:           │
│  ┌────────────┐ ┌────────────┐       │
│  │Omni off/Poly│ │Omni off/Mono│     │
│  └────────────┘ └────────────┘       │
│  ┌────────────┐ ┌────────────┐       │
│  │Omni on/Poly │ │Omni on/Mono │     │
│  └────────────┘ └────────────┘       │
│  ┌────────────┐ ┌────────────┐       │
│  │All Notes off│ │Tune Request │     │
│  └────────────┘ └────────────┘       │
│  ┌────────────┐ ┌────────────┐       │
│  │  Local off  │ │  Local on   │     │
│  └────────────┘ └────────────┘       │
│          ┌────────┐                  │
│          │ Cancel │                  │
│          └────────┘                  │
└─────────────────────────────────────┘
```

There are 8 Mode messages you can transmit:

Omni Off/ Poly   Your instrument will receive MIDI information only on the channel it is tuned to, and functions in Poly mode.

Omni Off/ Mono   Your instrument will receive MIDI information only on the channel (or a group of consecutive channels) it is tuned to, and functions in Mono mode.

Omni On/ Poly   Your instrument will receive MIDI information on any channel, and functions in Poly mode.

Omni On/ Mono   Your instrument will receive MIDI information on any channel, and functions in Mono mode. (This Mode is in the MIDI spec and is here only for completeness.)

All Notes Off   Turns off notes, especially ones that may be "stuck" on. This is recognized by some but not all instruments, so it may not appear to function if your instrument doesn't recognize this MIDI command.

Tune Request   Some analog synthesizers require tuning of their oscillators periodically.   Sending a Tune Request causes this function happen.   (Not all analog synthesizers recognize this message, however.) *This affects ALL channels, regardless of the channel selected.*

Local Off   This disconnects your keyboard from its sound part. (See description above -- Local Control.)

Local On   This connects your keyboard to its sound part. (See description above -- Local Control.)

MIDI INPUT FILTERS

This feature allows you to filter out MIDI events you may not want to record. For example, After Touch messages eat up a lot of memory. If you don't need After Touch, filtering it leaves more room for your music.

To activate the MIDI Filters:
• Select Input Filters from the MIDI menu
• A dialog box listing all the MIDI Input Filters available appears

```
┌──────────────────────────────────────────────────┐
│              MIDI Input Filters:                   │
│                                                    │
│  After Touch:      [ Enabled ] [ Filtered ]        │
│                                                    │
│  Pitch Bend:       [ Enabled ] [ Filtered ]        │
│                                                    │
│  Controllers:      [ Enabled ] [ Filtered ]        │
│                                                    │
│  Program Changes:  [ Enabled ] [ Filtered ]        │
│                                                    │
│  Note On/Off:      [ Enabled ] [ Filtered ]        │
│                                                    │
│  Mode Commands:    [ Enabled ] [ Filtered ]        │
│                                                    │
│  All Notes Off:    [ Enabled ] [ Filtered ]        │
│                                                    │
│            [   OK   ]      [ Cancel ]              │
│                                                    │
└──────────────────────────────────────────────────┘
```
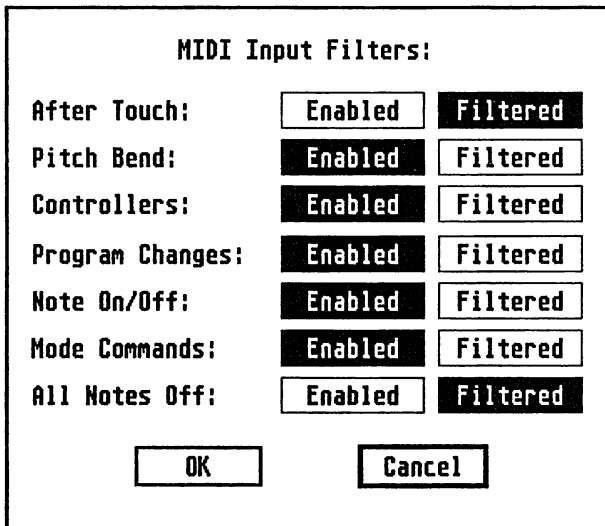
To Enable Or Filter Out A Controller:
• Click on your selection

For example, EZ-Track Plus defaults to filtering out After Touch. This means you will NOT record After Touch messages unless you select the **Enabled** box. It also filters our All Notes Off messages (a MIDI Mode message, not to be confused with Note Off), which should be unnecessary but can cause problems in overdubbing situations if enabled.

NAMING A SONG

You can give your song a title (up to 32 characters). This title will remain in the Song Name display. THE *SONG NAME* IS NOT NECESSARILY THE SAME NAME AS THE *SONG FILE NAME* ON THE DISK (See below).

To NAME A SONG:
• Select Name Song from the Edit menu
• Type in the title of your song
• Click OK

```
┌──────────────────────────────────────────────────────┐
│                                                      │
│   Song name:  The BEST TIME (in my life)|_____      │
│                                                      │
│                                                      │
│              ┌─────────┐      ┌──────────┐           │
│              │   OK    │      │  Cancel  │           │
│              └─────────┘      └──────────┘           │
│                                                      │
└──────────────────────────────────────────────────────┘
```
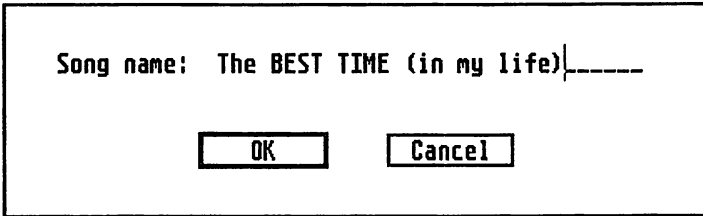
It appears in the Song Name display.

```
┌────────────────────────────────────────┐
│░░░░░  The BEST TIME (in my life)  ░░░░░│
├──────────────────┬─────────────────────┤
│  version 8       │                     │
└──────────────────┴─────────────────────┘
```
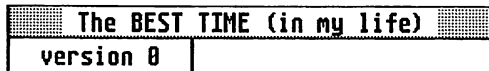
Types Of Names: There are 3 independent types of names per song:
1-**Track Name**   16-character name. One name per track.
2-**Song Name**   Name of song. 32-character name shown at top of Control Display.
3-**File Name**   The 8-character name you give your song when you save it to disk.

AUTOPLAY / AUTOLOAD SONG FILES

When you run EZ-Track Plus, it checks the disk for a file called **AUTOPLAY.SNG**. If this file is there, it loads and plays the song. If **AUTOPLAY.SNG** isn't there, the program looks for **AUTOLOAD.SNG**, and if it finds it, it loads the song file.

Since most things you set are saved in each song file, you can customize the program defaults by setting up a blank song the way you like and saving the song file as **AUTOLOAD.SNG**.

This is also good as a start-up song. For example, if you name the current song you are working on **AUTOPLAY.SNG**, then when you load the program, that song will automatically begin playing right after the program loads.

```
ITEM SELECTOR

Directory:
A:\*.SNG_____

┌───────────────────────┐   Selection:
│▓▓▓▓▓▓▓▓ *.SNG ▓▓▓▓▓▓▓▓│   AUTOLOAD.SNG|
│                     ⇧ │
│  ────────:───           │
│  ────────:───           │
│  ────────:───           │      ┌────────┐
│  ────────:───           │      │   OK   │
│  ────────:───           │      └────────┘
│  ────────:───           │      ┌────────┐
│  ────────:───           │      │ Cancel │
│  ────────:───           │      └────────┘
│  ────────:───       ⇩ │
└───────────────────────┘
```
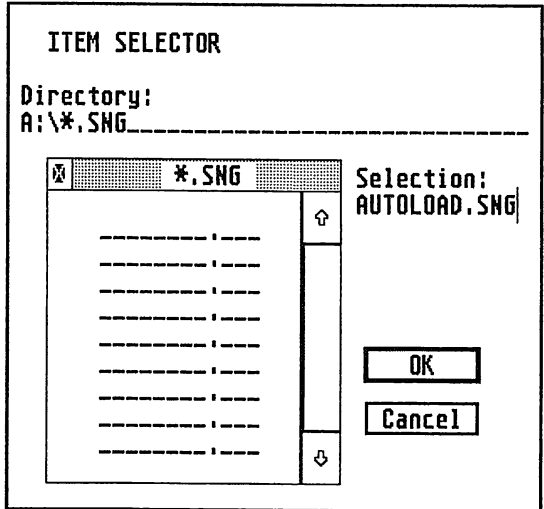
```
┌─────────────────────────┐
│▓▓▓▓▓▓▓▓ A:\ ▓▓▓▓▓▓▓▓▓▓│
│ 230654 bytes used in 7 items│
│  ▓ AUTO              ⇧ │
│    CONTROL  ACC   20080 │
│    GENPATCH ACC   10450 │
│    DESKTOP  INF     456 │
│    EZTRACK+ PRG    2432 │
│    EZTP     REL  195470 │
│    AUTOLOAD SNG    1766 │
│                         │
│                     ⇩ │
│ ◇ ┌─────────────┐ ◇ ▨│
└─────────────────────────┘
```

It will be saved on your disk and should be on the same disk that the program is on. It will appear on the directory as shown. The next time you load the program, in this example, the **AUTOLOAD.SNG** will also load.

ERASING A SONG

When the program first loads, all of the settings that appear are the program's factory default settings (a blank song, Start Time set to 00000.00, tempo =120, metronome ON, etc).

After you've been in session for a while, you may decide to start over. If this is the case, select Erase Song from the Edit menu. This function resets the current song to the factory defaults. *It does not have anything to do with any file you have on your disk; it only resets* **memory**.

Note:
If you have an **AUTOLOAD.SNG** that has your preferred settings, then instead of Erasing The Song, reload your **AUTOLOAD.SNG** using the Load function from the File menu.

To ERASE A SONG:
• Select Erase Song from the Edit menu
• A dialog box appears verifying your request to erase the song in memory (not the song saved on the disk)

```
┌─────────────────────────────────────────────┐
│  ▼▼    Are you SURE you want to              │
│  ⚠?⚠   erase the song now in memory??        │
│                                              │
│                                              │
│         ┌────────┐  ┌────────┐               │
│         │ Erase  │  │ Cancel │               │
│         └────────┘  └────────┘               │
└─────────────────────────────────────────────┘
```
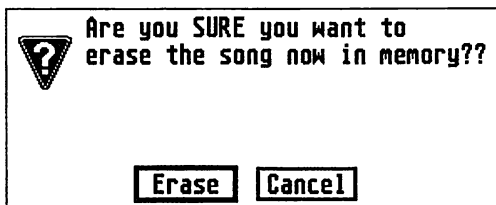
• If you're sure this is what you want, click the Erase box

Be sure before you do this, because *if you haven't saved the song to disk, it's gone forever.*

QUANTIZE METHOD

This determines how EZ-Track Plus handles events when using the Quantize function.

If you choose the Move Note Method, then when you Quantize a track, each note will move to the correct timing point, without any change to the duration of the note. Other types of events are NOT moved.

The Shift Attack Method causes just the front of the note (the Note On) to slide to the correct timing, which changes the duration of the note. Any other events between the old Note On time and the new Note On time are pushed to the new Note On time.
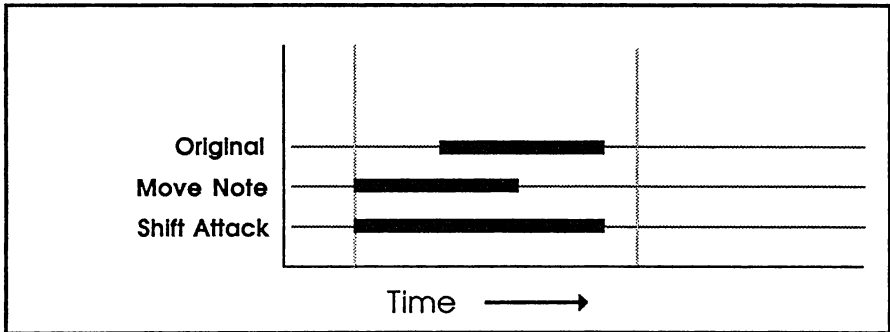
To Set The QUANTIZE METHOD:
• Select Quantize Method from the Options menu
• A dialog box appears offering you a choice of two quantizing methods:
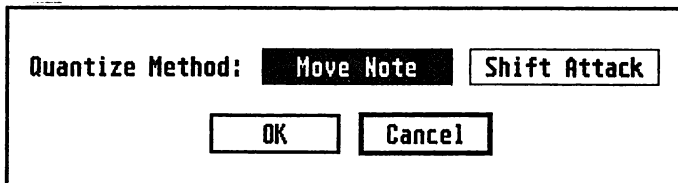
• Click on your selection
• Click OK

SAFETY FEATURES

These are all contained in the Safety menu and are toggled ON or OFF by pointing to the option and clicking. If the option is ON, a small check mark appears next to the item; if it is OFF, there is no check.

```
 Safety 
┌─────────────────┐
│ Entering Menu   │
│√ Shift + Enter  │
│─────────────────│
│√ Deleting       │
│√ Replacing      │
│─────────────────│
│√ Back Up Files  │
└─────────────────┘
```
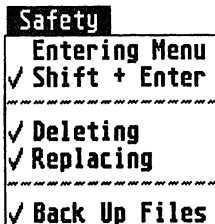
Entering Menu

It most Atari ST programs, the menus drop down when the mouse is moved into the menu bar area. In EZ-Track Plus, whenever a menu drops down, the song stops. This is done to prevent timing delays (because the Atari ST is not a multi-processing computer).

If Entering Menu is ON, then whenever you move into the menu bar area, you must click the LEFT button to cause the menu to drop down (the song will continue playing until you click).

If the mouse moves across the surface it is on (maybe caused by vibrations from the loud music you are creating!), it could end up in the menu bar area causing the song to stop while you're in the middle of recording a "perfect" take. Entering Menu ON prevents this from occurring.

Shift + Enter

The default key command equivalent for KEEP is Shift Enter, to make it hard to accidentally replace a track with unwanted information. (Shift + Enter is ON).

Turning Shift + Enter OFF changes this key command to one key: Enter. This makes saving a track easier.

Delete Warning

```
┌─────────────────────────┐
│  ▼                      │
│ ▼?▼  Delete track  1 ?  │
│  ▼                      │
│                         │
│   [Delete]  [Cancel]    │
└─────────────────────────┘
```
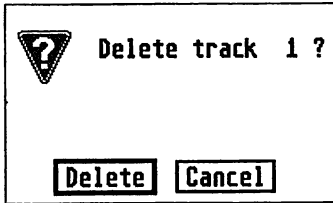
If you select Delete Track from the Track menu, a prompt will ask you if you're sure you know what you're doing (as long as the **Deleting** option is left ON).

If the **Deleting** option is turned OFF (not checked), then when you select Delete Track, that's just what it does... no questions asked. Make sure you don't want this track, because even the best of us make mistakes now and then.

Replace Warning

The Replace Warning appears when you perform any action which ends up replacing the track you select as a destination (as long as the **Replacing** option is left ON).

If you turn the **Replacing** option OFF (not checked), it assumes you intend to replace the selected track with the new information, and it won't ask you before replacing it.

```
┌─────────────────────────┐
│  ▼                      │
│ ▼?▼  Replace track  1 ? │
│  ▼                      │
│                         │
│   [Replace]  [Cancel]   │
└─────────────────────────┘
```
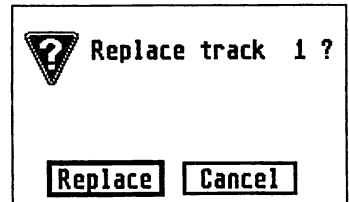
Back Up Files

With this checked, each time you Save or Update a song, the program automatically makes a backup song file of the previous version. The previous version is renamed with the extension **.SBK** (song backup). (If there was already an **.SBK** file with that name, then it is deleted from the disk, and the new **.SBK** file replaces it.)
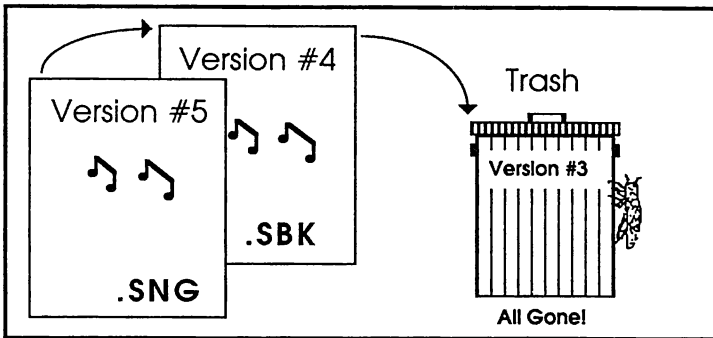
To Load The Backup Version:
- Insert the disk containing the backup version of the Song File
- Select Load from the File menu
- Click on the Directory Line to move the cursor from the Selection Line
- Type the Backspace key 3 times (erasing **SNG**)
- Type **SBK** (the directory Line should now be: **A:*.SBK**)
- Click anywhere on the scroll bar (this updates the listing)
- Click on the **.SBK** file you want to load
- Click OK

If Back Up Files is not checked, then every time you try to Save or Update a song when a song file by that name already exists, a dialog box will appear asking what you want to do:

```
┌──────────────────────────────────────────┐
│  ___   A file already exists by that      │
│ ▓STOP▓ name.  What do you want to         │
│  ▀▀▀   do with it?                        │
│                                            │
│                                            │
│ ┌────────────┐ ┌────────────┐ ┌─────────┐ │
│ │ Back It Up │ │ Replace It │ │ Cancel  │ │
│ └────────────┘ └────────────┘ └─────────┘ │
└──────────────────────────────────────────┘
```
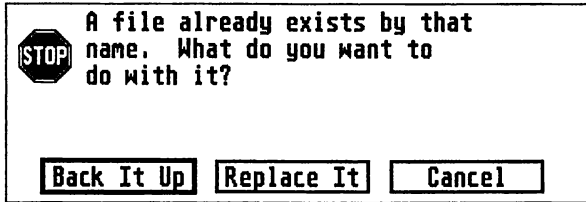
Click **Back It Up** to have the program create an **.SBK** file (as described above)

Click **Replace It** to have the program replace the previous version with the current one (a back up file is not created).

CHAPTER 7
SYNCHRONIZATION

In This Chapter:

- MIDI Output Options

- Internal Sync
- MIDI Sync

Key Words:

- Chase
- Lock
- PPQ

MIDI OUTPUT OPTIONS

You have control over several MIDI output options.

The MIDI spec has a provision for synchronizing to devices over MIDI. It consists of the following:

Start...tells a MIDI device to start playing from the beginning when it receives the MIDI Clock that follows this event

Clock...tells a MIDI device to advance a 24th of a quarter note

Stop..tells a MIDI device to stop playing (ignore MIDI Clocks)

Continue......................................tells a MIDI device to resume playing (from where it stopped) when it receives the MIDI Clock that follows this event

Song Position Pointer.........tells a MIDI device to locate to the 16th note a specified distance away from the beginning of a song

To Set Up The MIDI OUTPUT OPTIONS:
• Select Output Options from the MIDI menu
• A dialog box lists all of the MIDI Output options available:

```
┌─────────────────────────────────────────────────┐
│              MIDI Output Options:                 │
│                                                   │
│  Start/Stop/Clock:  ▮Enabled▮  │ Disabled │       │
│                     │ Start/Clock Only │          │
│                                                   │
│  Locate Method:  │ Song Position Pointer │        │
│                  │ Quick Clock │ ▮None▮           │
│                                                   │
│          │   OK   │        │ Cancel │             │
└─────────────────────────────────────────────────┘
```
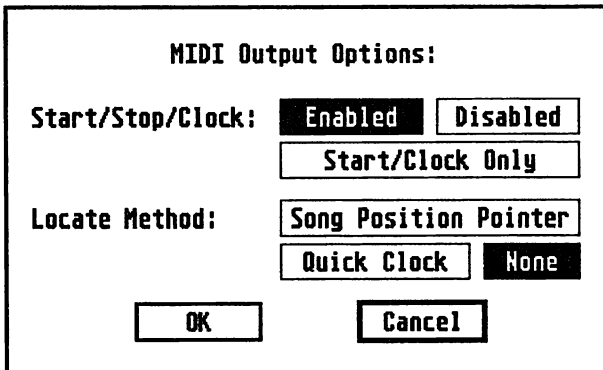
Start/Stop/Clock

Disabled means no MIDI Clock or related events will be sent. Use this when you want to avoid triggering a drum machine, for example.

Enabled means Start, Clock, Stop, and Continue will be sent, per the MIDI spec, whenever EZ-Track Plus plays.

A few drum machines (very few), don't recognize a Stop command, and when one is issued they can tend to get confused. For these devices, the **Start/Clock Only** setting should be used.

Locate Method

Song Position Pointer is also available to enable drum machines or other MIDI devices that utilize this method of synchronizing to chase and follow EZ-Track Plus.

Quick Clock is a method by which a very fast Clock rate is outputted allowing certain drum machines to chase to where your song is located.

WARNING:
Some drum machines may crash (even lose their memory contents) if you send them clock too fast. Use Quick Clock **only** if your drum machine doesn't recognize Song Position Pointer. **Back up the data in your drum machine** before trying Quick Clock.

INTERNAL SYNC

There are 2 Sync Types available in EZ-Track Plus. Internal Sync is the default and is indicated by the Atari logo in the Sync Selector on the Control Screen:
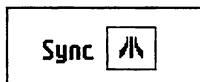
Sync

Internal Sync is a basic timing situation where the Atari ST is the source of the timing. There is a quartz clock inside the Atari ST and all tempo settings are referenced from this internal clock. The Atari ST is the "Master" in this case, whereas in MIDI Sync it is the "Slave" to another device's timing system.

MIDI SYNC

If you click inside the Sync Selector box, you toggle the Sync Type between Internal and MIDI. MIDI Sync is indicated by the MIDI Plug in the Sync Selector on the Control Screen:
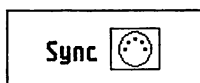
Sync

In MIDI Sync, EZ-Track Plus no longer responds to its built-in Recording Controls (except KEEP). Instead, it starts, stops, and continues under control of an external timing device ("Master") connected to the Atari ST's MIDI In.

EZ-Track Plus does not respond to Song Position Pointer as a slave. (It can output it as a master -- see Locate Method under MIDI Output Options above.)

The MIDI timing events will not be Thru'd.

If EZ-Track Plus is recording while in MIDI Sync, it will interpolate between MIDI clocks (which are at a rate of 24 ppq) to maintain 96-tick recording resolution.

APPENDIX A
APPLICATION NOTES

In This Chapter:

- Inserting Time In The Middle Of A Track
- Transferring Sequencer To Sequencer
- Transferring Drum Machine Songs

INSERTING TIME IN THE MIDDLE OF A TRACK

Using the Glue Section function of EZ-Track Plus, it's not too hard to insert or delete time in the middle of a track.

Let's say you've decided you want to add 4 beats between 00008.00 and 00012.00. You've already recorded from 00000.00 to 00012.00 linearly.

To Insert Time:
• Assign every track involved to a different MIDI channel
• Mix those tracks down to one
• Create a section for the first part up to where you want to insert time (Example, from 00000.00 to 00008.00)
• Glue this Section at the same Start Time to a blank track (Example, Start Time = 00000.00)
• Create another Section for the second part which will be moved out (Example, from 00008.00 to 00012.00)
• Glue this Section at a calculated new time to another blank track (Example, 00008.00 + 4 beats = new time = 00012.00)
• Mute (or Delete) the source track
• Optionally Mix the two new tracks together
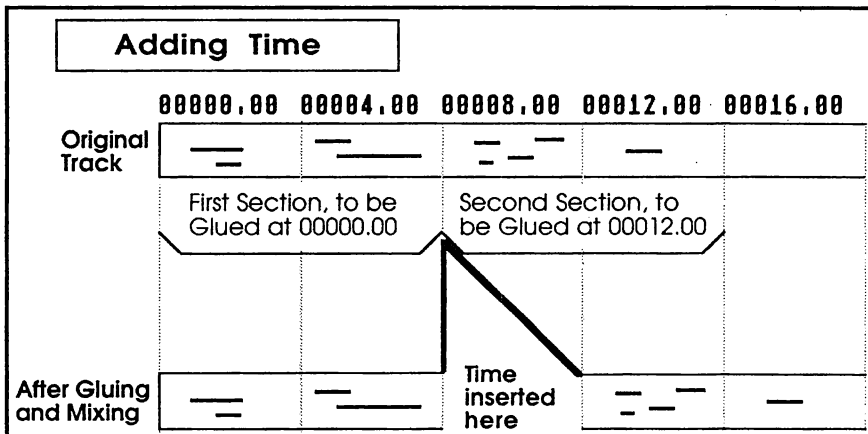
TRANSFERRING SEQUENCER TO SEQUENCER

You may have songs on another sequencer that you would want to transfer to EZ-Track Plus. The problem is the Atari ST can't read the disks directly (because the file formats are different). You can, however, communicate using MIDI. To do this, you must sync both sequencers together.

To Transfer Sequencer To Sequencer:
• Set up both sequencers (turned ON, songs loaded)
• Connect the MIDI Out of the other system to the MIDI In of the ST
• Set EZ-Track Plus to MIDI Sync

• On the other system:
   1 Assign each track to a different MIDI channel (It doesn't matter if they are the correct MIDI channels or not, just as long as each part has its own MIDI channel assigned.)
   2 Set the Tempo to a very slow tempo (This improves the clock resolution of the synchronization between EZ-Track Plus and the other system)
   3 Set Output MIDI Start/Stop/Clock
   4 Start the sequence

• If all is well, EZ-Track Plus will be in sync and the KEEP button will highlight indicating MIDI data is being received
• When the sequence is complete, save the information to a track and select Internal Sync on EZ-Track Plus
• Play back the track on EZ-Track Plus to verify the transfer
• Unmix the track so that each part is again on a separate track

You can reverse this process as well, going from EZ-Track Plus to another sequencer.

TRANSFERRING DRUM MACHINE SONGS

Drum patterns or complete songs can be transferred to EZ-Track Plus.

To Transfer Drum Machine Sequences To EZ-Track Plus:
- Connect the Drum MIDI Out to the ST MIDI In
- Connect the Drum MIDI In to the ST MIDI Out
- Set the Drum to MIDI Sync
- Set the ST to Internal Sync
- Set the tempo of the ST to a very slow rate (This improves the clock resolution/ MIDI event ratio)
- Select Output Options from the MIDI menu
- Make sure Start/Stop/Clock is set to **Enabled**
- Start EZ-Track Plus
- If all is well, MIDI information will be sent to EZ-Track Plus, and the KEEP button will highlight indicating MIDI data is being received
- When done, store the information on a track
- Set the Drum to Internal Sync
- Select Output Options from the MIDI menu
- Set Start/Stop/Clock to **Disabled** so that the drum sequence doesn't start when you play the ST sequence

```
MIDI Output Options:

Start/Stop/Clock:  │ Enabled │ Disabled │
                   │  Start/Clock Only  │
```
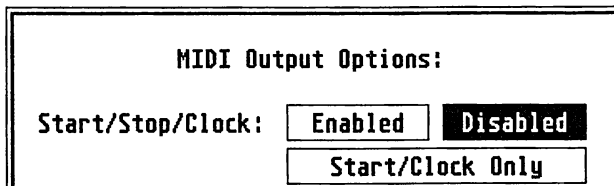
- Play back the track on EZ-Track Plus to verify the transfer

The drum tracks on EZ-Track Plus can be edited just like any other track (Mixed together, pasted via Glue Section, Quantized, etc.)
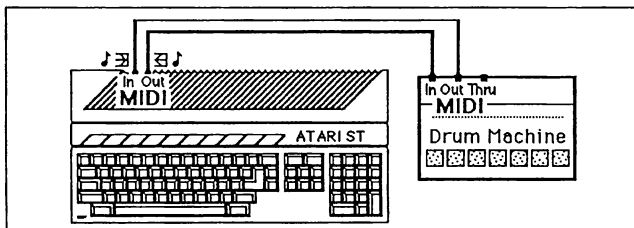
APPENDIX G
GLOSSARY

This is The Glossary:

- It Contains Key Words From Each Chapter
- It Also Defines Other Important/Relevant Terms

AFTER TOUCH

Some MIDI keyboards can detect how hard you press down on a key once it is all the way down. This pressure sensitivity is often referred to as After Touch (you "touch" they key when you first play it; later when you press down on it this is "after touch"). Many synthesizers can vary the sound of a note by responding to After Touch.

There are two kinds of After Touch: Channel Pressure and Polyphonic Key Pressure. Channel Pressure, commonly referred to as after touch, is the most widely used. With Channel Pressure, all notes on a keyboard (and therefore on one channel) are affected by one note's pressure changes, so if you hold down a chord with your left hand, and increase the pressure on a single note in the right hand, the pressure affects the left-hand chord as well as the right-hand note.

With Polyphonic Key Pressure, on the other hand, each key has a separate pressure sensor, and each note can be individually affected by pressure. Because of the higher cost of individual pressure sensors per key, relatively few keyboards have Polyphonic Key Pressure.

ALL NOTES OFF

A MIDI message that does just what it says: turns all the notes off. This may be useful when you have some "stuck" notes. However, this is an optional part of the MIDI Spec, *not* designed to replace Note Off messages, and many instruments ignore it.

ATTACK

1.   How fast a note reaches its maximum volume. Percussive instruments have a fast attack, slowly bowed strings have a slow attack.

2.   The beginning part of a note. Attack Velocity refers to how fast the key travels down (at the beginning of the note); Release Velocity refers to how fast the note is released (at the ending of the note).

AUTO-LOCATE

A feature that allows you to specify any point in the song and instantly cue up to that point.

BACKUP FILES
A duplicate of a file, usually stored in a separate place than the original.

BANK
Synthesizer patches are stored as groups of sounds known as banks. Banks are a simple method of organizing or categorizing a group of sounds Some synths contain more than one bank and allow you to switch from one to another.

BEAT
In this manual, the term beat usually means a *quarter-note* beat. This is the basic unit in which EZ-Track Plus counts time within the song.

BOUNCE
The process of combining (mixing) separate tracks into one.

BOW-OUT
To mute (turn off) a particular track while turning *every other* track on (unmuted).

BUFFER
Memory that that has been set aside for a specific purpose, usually as a temporary storage location. The Record Buffer's purpose is to hold all recorded MIDI information until you KEEP it (store it permanently) to a track.

BYTE
A fundamental unit of computer memory. It is a grouping of eight bits (a bit is a "binary digit" that has a value of either 0 or 1) with 256 possible values. For example, a byte may represent a note number, or one of the letters of the alphabet.

CHANNEL
See **MIDI CHANNEL**

CHANNEL PRESSURE
See **AFTER TOUCH**

CHASE
Chasing means synchronizing to a tape sync source no matter where within the sync track you start. In SmpteTrack, you can chase to anywhere in the song almost instantly by using SMPTE sync.

When working with analog machines such as MTRs (Multi-Track Recorders) and VTRs (Video Tape Recorders) that have physical transports, chase refers to the time it takes for one machine to lock up to the other one (the slave machine chases after the master machine until they are synced). This can take up to 20 or 30 seconds.

CLOCK
1.   An electronic timing pulse for use in synchronizing sequencers with a common timing reference.

2.   A breakdown of a (quarter-note) beat into 24, 48 or 96 units. MIDI synchronization is based on 24 clocks per beat. EZ-Track Plus divides its beats to a resolution of 96 clocks or divisions of a beat. Also known as **TICKS**.

CONTROL CHANGE
The MIDI assignment of numbers for different types of controllers. The sustain pedal has specific Control Change number that almost all synth manufacturers adhere to, #64. Other numbers can represent other controls, such as a MIDI volume pedal (#7), mod wheel (#1), or breath controller (#2).

COUNTER
A numerical representation of where one is located in the song (either in beats.ticks or measures | beats.ticks).

CUE
1.   To locate to a particular point in the song, as in cue up. Clicking either Play or the Reset Button in EZ-Track Plus causes it to cue to the beginning (or Start Time if Auto-Locate is enabled)

2.   A piece of music (or a sound effect) written for a specific section of a visual medium, such as film or video.

CUT AND PASTE
The action of cutting (or copying) a section of information (text in a word processor, music in a sequencer) from one place and placing it somewhere else.

DEFAULT
A predetermined starting value for a setting. When you run EZ-Track Plus, it starts with a tempo value of 120 BPM; thus 120 BPM is the default tempo setting. If you use the **AUTOLOAD.SNG** feature (see Chapter 6), you can change the default, so that, for example, the program always comes up set to 110 BPM.

DESK ACCESSORY
A mini-program that is loaded into memory when the Atari ST is turned ON or reset. Accessories MUST be on the disk in the main drive at that time. These programs stay in memory until you turn the computer OFF or reset. Use Accessories by selecting them from the **Desk** menu.

DURATION
The length of a note from the point a Note On message occurs to when a Note Off is issued.

GLOBAL
Having to do within overall functions; ie; a global transposition will affect all the tracks in the song.

GLUE SECTION
The action of relocating a section of a track to another point. See **CUT AND PASTE.**

HEX
Short for Hexadecimal, meaning base 16. Computers deal in a binary universe, as electronics easily translates to an ON/OFF state of affairs. Whereas decimal (base 10) counting involves 10 digits from 0 to 9, hexadecimal involves 16 digits (0 to 9 followed by A to F)   Exactly two hex digits can represent a byte value (between 0 and 255, written as FF in hex). Thus hex can sometimes make the meaning of computer data more obvious than decimal would.

ICON
A symbol or image used to represent a concept or physical device.   For example, in EZ-Track Plus an icon of a boxing glove represents the Punch feature.

INTERFACE
1. The method of communication and interchange between a user and a program. There are several means of interfacing with EZ-Track Plus, either with a mouse or the ST keyboard.

2. A device for making such communication possible. A MIDI interface (built-in on the Atari ST, but an extra option on other computers) provides the circuitry necessary to communicate via MIDI. The Sync Box that comes with SyncTrack or SmpteTrack is an interface to tape decks and drum machines.

3. Interface is also used to denote the ease of use of this communication process between program and user.

LOCAL ON/OFF
A MIDI command which allows separates the keyboard part of a keyboard instrument from its sound-generating part. See description in Chapter 6.

LOCK
A term describing a condition when two devices are in synchronization with each other.

MASTER
In synchronization, the device that determines the timing for all other connected devices (**SLAVE**s).

MIDI
Musical Instrument Digital Interface. The hardware interface and communications protocol by which electronic musical instruments communicate with each other and with computers.

MIDI CHANNEL
One of 16 separate channels used to communicate MIDI information. Synthesizers, drum machines, and other MIDI equipment can normally be "tuned" to receive MIDI data on any one of 16 channels, much like a television set can tune into different TV stations.

MIDI EVENT
A piece of information sent over MIDI as one "message". Examples of MIDI events are; Note On, Note Off, Tune Request, Patch Change, etc. When using a pitch wheel, one MIDI event is one movement of the pitch wheel, not the whole bend (which may consist of hundreds of events).

MIDI IN/OUT/THRU
The means by which MIDI equipment is connected. MIDI data is transmitted out the MIDI Out port. MIDI data is received on the MIDI In port. A MIDI Thru port (not the same as the sequencer's Thru function), which is optional, provides an exact copy of the data arriving at the MIDI In port with no timing delay. MIDI communication is possible when a cable is connected from one device's MIDI In to another device's MIDI Out.

MIDI SPEC
The MIDI 1.0 Specification is the official document that defines the MIDI standard (both the hardware and the communication protocol). Copies can be obtained from the IMA (International MIDI Association) in Los Angeles.

MIX
1. To establish relative volume levels, sound placement, EQ settings, and a number of other details to produce a final, cohesive recording.

2. To combine (**BOUNCE**) several tracks together into one.

MONO MODE
A MIDI Mode where the voices in an instrument are subdivided one per channel. For example, a Casio CZ-101 can be set up so that it can play one note each on 4 channels, each channel having a different sound or timbre (hence the term multi-timbral). Another use of Mono Mode is for instruments designed to work with guitar controllers. By using a separate channel for each string, a guitar controller can then handle the independent pitch bending of each note. Also see **POLY MODE**.

MTR
Multi-Track Recorder. This can be any recording device with multiple tracks (4, 8, 16, 24, 32, or more), which allows recording on one track while playing back others.

NUMERATOR
The top part of a fraction. Since time signatures are written in a style similar to fractions (eg, **4/4**), Numerator is also used to refer to the number of beats in a measure (denominator then referring to the beat value).

OMNI ON/OFF
Omni On is a mode in which a MIDI device receives and acts on MIDI information on any of the 16 MIDI channels (ie, it ignores the channel numbers on messages). This was often used in the early days of MIDI to make hookups between two synthesizers (which might otherwise be set to different channels and thus not communicate) simple.

Omni Off is the opposite mode, where the receiving MIDI device looks at the MIDI channel on each message and only acts on messages on the channel(s) it has been set for.

OVERDUB
The action of recording music on another track while playing back music recorded previously on other tracks.

PATCH
A specific sound program on a synthesizer. Changing the patch on an instrument means calling up a different sound from a stored definition. Originally, synthesizer sounds were generated by connecting oscillators and amplifiers together via patch cables, hence the term patch.

PITCH BEND
A means of varying the pitch of a note as it plays by using a controller such as a pitch wheel. The maximum range of a pitch bend is determined by a setting on the instrument.

PIXEL
Short for "picture element". The smallest unit of display on a computer monitor, thus also the smallest possible unit of movement for the mouse. On the Atari ST, the monochrome screen (high resultion) is 640 pixels wide by 400 pixels tall. The color screen in medium resolution is 640 pixels wide by 200 pixels tall.

POLY MODE
A MIDI Mode where all the available voices (notes) in an instrument are assigned to one MIDI channel. (A split mode or multi-channel mode, available on some instruments, actually treats the device as multiple "instruments", each in Poly Mode on one channel.) Also see **MONO MODE**.

POLYPHONIC KEY PRESSURE
See **AFTER TOUCH**

PPQ
Pulses Per Quarter Note: how many steps a quarter-note is divided into, either in sequencer storage (then often referred to as "**TICKS** per **BEAT**") or in synchronization. The internal storage of EZ-Track Plus is 96 ppq. MIDI Clock synchronization has one-quarter that resolution, since it is 24 ppq. Also see **CLOCKS**.

PSEUDO NOTE OFF
The **MIDI SPEC** allows for the turning off of a note to be represented in two different ways. One way is by an actual ("real") Note Off message, which includes a **RELEASE VELOCITY** value. The other method is to send it as a Note On with a velocity value of 0. All instruments should interpret either of these messages as a command to turn off the note.

PUNCH IN / PUNCH OUT
The action of replacing information on a track between a Start Time and an End Time. On simple multi-track recorders, you Punch In (record on the Punch track) by pressing a switch, and Punch Out (stop recording on that track while continuing to roll the tape) by letting up on the switch. In advanced MTRs and most sequencers, you can predetermine the Start Time and End Time, and have the track automatically mute and go into record at those points. Also known as Automated Punch.

QUANTIZE
To correct the timing of a performance. For example, by quantizing a track to quarter notes, all notes on the track that are not on exact quarter-note beats will be placed on the nearest beat. If the timing was too far off to start with, though, the "correction" can move some notes in the wrong direction.

RAM
Random Access Memory. That portion of a computer's memory used for temporary storage of changeable information, as opposed to ROM (Read-Only Memory) which is unchangeable memory. Unless battery-backed-up, RAM "forgets" when the computer (or device essentially containing a computer, as most modern instruments do) is turned off.

RELEASE VELOCITY
The speed with which you release a note. Some synths recognize this MIDI parameter (sent as part of a "real" Note Off message) and allow for different effects depending on the release of the key. Also see **PSEUDO NOTE OFF**.

ROM
Read Only Memory. Memory that is not lost when the computer (or other device) is powered off (and needs no battery backup) and is unchageable (except, perhaps, by replacing the ROM chips).

SECTION
A defined portion of a track (or multiple tracks) that can then be pasted (Glued) to another point in the song.

SLAVE
In synchronization, a device that receives its timing from (is under the control of) another device (the **MASTER**).

STEP RECORD
To record MIDI information by stepping through time manually, inputting events one piece at a time.

UNMIX
To separate note values from a specified track by MIDI channel assignment.

VELOCITY
The speed at which a key travels as you press it (if referring to Attack Velocity). In practice, this is essentially a representation of how hard you strike the key. Most synthesizers (the least-expensive ones are the exception) are velocity sensitive, and can generate a variety of effects (increase in volume, brightness, etc) based on an increase in velocity. Also see **RELEASE VELOCITY**.

APPENDIX K
KEY COMMAND LIST

This Appendix Lists:

- All keyboard commands which make it possible to perform many of the functions available using the Atari ST keyboard

In reference to the Commands listed on the following pages:

- **Control** means HOLD DOWN the Control key, then press the letter
- **Shift** means HOLD DOWN the Shift key, then press the letter
- **Alternate** means HOLD DOWN the Alternate key, then press the letter
- In some cases, combinations of the above special keys are held down at the same time

- **Numeric** refers to a key on the *Numeric* Keypad
- All other keys or mouse buttons as they appear

For example,

Control Shift 0

means:

While holding down the Control and Shift keys, press 0 on the main keyboard. (If a key is used from the Numeric Keypad, it would say **Numeric**.)

Menu Commands

OPERATION	FROM THIS MENU:	ST KEYBOARD:
Current Drive	File Menu	Alternate C
Delete File	File Menu	Alternate D
Format Disk	File Menu	Alternate F
Import Track	File Menu	Alternate I
Load Song	File Menu	Alternate L
Quit	File Menu	(no key equivalent)
Save Song	File Menu	Alternate S
Update	File Menu	Alternate U
Delete Track	Track Menu	Control Shift D
Glue Section	Track Menu	Control G
Name Track	Track Menu	Control N
Protect Track	Track Menu	Control P
Unprotect Track	Track Menu	Control Shift P
Copy Track	Edit Menu	Control C
Erase Song	Edit Menu	Control Shift E
Mix Tracks	Edit Menu	Control M
Name Song	Edit Menu	(no key equivalent)
Quantize Track	Edit Menu	Control Q
Transpose Track	Edit Menu	Control T
Unmix Track	Edit Menu	Control U
Velocity Adjust	Edit Menu	Control V
Track Delays	Options Menu	Control -

Track Display Commands

OPERATION	CLICK MOUSE ON:	ST KEYBOARD:
Select A Track	Track Pointer	1-0, Shift 1-0 Up/Down Arrow
Unmute (Track ON) Mute (Track OFF) Solo (Only Track ON) Bow-Out (Only Track OFF) Unmute All Tracks Mute All Tracks	Track Arrows (L) Track Arrows (R) Track Arrows (L+R) Track Arrows (R+L)	Shift Up Arrow Shift Down Arrow Control Up Arrow Control Down Arrow Control Shift Up Arrow Control Shift Down Arrow
Track MIDI Channel	MIDI Channel Column (L/R)	Control 1-0 Control Shift 1-6 Control Shift 0 Shift [OR]

Control Display Commands

OPERATION	CLICK MOUSE ON:	ST KEYBOARD:
Tempo:		
(Fine)	Tempo Value	. OR ,
(Coarse)	Tempo Quarter Note	Shift . OR ,
Metronome ON/OFF	Speaker Icon	'
Sync Type	Sync Icon	Shift '
Activate Auto-Locate	Locate Bar	Numeric *
Activate Punch	Punch Icon	Numeric /
Reset Counter	Reset Icon	Control Space Bar
Step Time:		
(Beat)	Counter L of dot	Shift Tab
(Clock)	Counter R of dot (L)	Control Tab
(16ths)	Counter R of dot (R)	/
Transpose Global:		
(by Half-Step)	Accidental Column	Left/Right Arrow
(by Octave)	Transpose Icon	Shift Left/Right Arrow
Transpose Exception	Transpose Ch Icon	Control Shift [OR]
Thru ON/OFF	Thru Box	=
Thru MIDI Channel	Thru Ch Icon	[OR]
STOP	Stop Icon	Return
PLAY	Play Icon	Space Bar
PAUSE/Continue	Pause Icon	Tab
KEEP recorded info	KEEP Icon	Shift Enter
		Enter (with Safety OFF)
Turn Off sustain notes		Control X

APPENDIX R
MENU BAR REFERENCE

In This Chapter:

- Desk Menu
- File Menu
- Track Menu
- Edit Menu
- MIDI Menu
- Options Menu
- Safety Menu

Across the top of the screen lies the Menu bar, where all the options of EZ-Track Plus can be accessed. This chapter gives a brief description of each of the functions and directs the user to the chapter and gives a brief explanation of it's function. This can serve as a quick reference for experienced users or provide a place to refer to functions as they're laid out on the screen, as opposed searching through the manual for the answer.

DESK MENU

About EZ-Track+   This lists the credits for the program (general software practice showing author, publisher, and version).

This menu selection can also be used to release some (very few) desk accessories which don't give control back to EZ-Track Plus after they are closed. Select **About EZ-Track+** if, after using a desk accessory, you find that menu selections are still disabled (can't be used).

GenPatch   A Desk accessory that allows loading of Hybrid Arts' GenPatch files into your synths without having to exit the program.
CHAPTER 6

FILE MENU

Load...
Loads in a previously saved song.
CHAPTER 3

Import Track...
Allows the merging of files through selecting individual tracks and combining them with the current song you're working with.
CHAPTER 4

Save As...
Saves the current song you're working with to disk, prompting you to enter a name for the file.
CHAPTER 3

Update
Saves the current song you're working with to disk without prompting you for a file name. You must have saved the current file once within the period you've been working with it for this option to become available.
CHAPTER 3

Delete...
Allows (permanent) deletion of files of any kind on disk.
CHAPTER 3

Format Disk...
Will format a disk, single or double density, on the drive of your choice.
CHAPTER 3

Current Drive
Allows user to change the drive currently used to load from and save files to.
CHAPTER 3

HybriSwitch
Allows access to other programs when running under Hybrid Arts' HybriSwitch software. You can switch between up to 10 programs by pressing a button.
(See your Authorized Hybrid Arts Dealer for details)

Quit
Exits the program back to the desktop.
(No detailed description needed)

TRACK MENU

Name   Allows naming of individual tracks.
                      CHAPTER 3

Protect   Prevents accidental erasure of track information when
                      on.
                      CHAPTER 3

Unprotect   Turns off the protect feature.
                      CHAPTER 3

Glue Section   The cut-and-paste feature.   Copies any portion of a
                      track or tracks that have been defined by the user,
                      from one timing location to another, as specified.
                      CHAPTER 5

Delete   Erases the track currently selected.
                      CHAPTER 3

EDIT MENU

Name Song   Permits a name to be assigned for the overall song (not to be confused with a file name).
CHAPTER 6

Copy Track   Copies a specified track to another track, erasing anything present on the destination track.
CHAPTER 4

Mix Tracks   Mixes one or more tracks to another specified track, including any MIDI channel assignments, delays, etc.
CHAPTER 4

Unmix Tracks   Separates out information on a track by MIDI channel assignment.
CHAPTER 4

Quantize Track   Autocorrects the timing to any reference value without altering the information on the original track.
CHAPTER 4

Transpose Track   Transposes notes on a track by half-steps, plus or minus 9 octaves.
CHAPTER 4

Velocity Adjust   Permits adjustment of velocity values contained on a track.
CHAPTER 5

Erase Song   Deletes the current song from memory.
CHAPTER 6

MIDI MENU

Send Mode Msg   Allows a variety of MIDI Mode messages to be sent over specified MIDI channels.
CHAPTER 6

Input Filters   Gives the user control over which types of MIDI information is to be recorded and allows filtering out of unwanted events.
CHAPTER 6

Output Options   Provides several different MIDI output sync variations to ensure more synth and drum machine configurations are covered.
CHAPTER 8

OPTIONS MENU

Meter/Metronome   Toggles back and forth between a display of meter or beats in the counters, and allows setting up of time signatures.
CHAPTER 5

Quantize Method   Selects between two methods of quantizing (Move Note or Shift Attack.)
CHAPTER 6

Whole vs Region   Lets you determine whether or not a query to alter the whole track or only a specified region of the track will appear each time an edit takes place.
CHAPTER 4

Track Delays   Adjusts the timing of tracks relative to each other, late or early by ticks.
CHAPTER 4

SAFETY MENU

Entering Menu   Either you may enter the Menu bar directly, or only by clicking the Left mouse button.
CHAPTER 6

Shift + Enter   Either the Shift key alone or a combination of Shift + Enter is required when using the ST keyboard to store MIDI information to a track.
CHAPTER 6

Deleting   Either the user is warned or not when deleting a track.
CHAPTER 6

Replacing   Either the user is warned or not when replacing a track.
CHAPTER 6

Back Up Files   You may choose whether to automatically create backups for your songs whenever you save your files to disk, or not.
CHAPTER 6

APPENDIX T
TROUBLESHOOTING

This is a troubleshooting chapter. It is a compilation of the most commonly overlooked situations which can be corrected easily.

Problem	Possible Cause	Possible Solution
• The Disk Drive has problems reading the disk.	• The disk may be damaged. • There may be dust on the disk. • It may not be aligned properly. • The spring in the disk shutter may be stiff.	• Play with the disk shutter and spin the disk inside its casing manually (by rotating the metal hub) then Retry. • Try the same disk on a different drive.

Data on the disk in drive A: may be damaged. You must use the right kind of floppy disk; you must connect your hard disk properly.

[Cancel] [Retry]
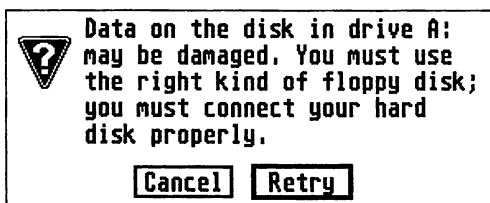
Problem	Possible Cause	Possible Solution
• MIDI Out data seems to be doubled up or garbled when using MIDI In/Out ports.	• The Atari ST MIDI Out port uses pins 1 and 3 for MIDI Thru. Pins 4 and 5 are the two signal pins in MIDI. Some cable manufacturers cross connect pins 1 and 3 to these wires causing "MIDI feedback".	• Use MIDI spec cables. • Try another brand of MIDI cables.
• The computer crashes when an underscore (_) is typed in a dialog box.	• A GEM bug occurs in ROM versions through 11/20/85. Newer ROMs are installed in the MEGA ST computers.	• Don't type in an underscore in dialog boxes unless you understand where the underscore will work (for example, they won't work any time a number is requested).

Problem	Possible Cause	Possible Solution
• Computer crashes when a disk error occurs.	• Repeated disk errors (such as no disk in drive) can sometimes lead to system hangups.	• After getting one error such as no disk in drive, it's safest to save the song file and reset the computer as soon as possible.
• When the program is loaded, sometimes the key click chatters continuously (monitor volume turned up).	• If you move the mouse while the program is loading, it may get the computer confused.	• Hit the **Esc** key
• The metronome can't be heard even though it is enabled.	• Monitor volume down.	• Turn up your monitor volume.
• Menus fail to drop.	• GEM	• Click the Left button once while pointing at the menu bar.
• The menu sticks when I get part way down the menu and none of the functions can be selected.	• GEM	• Move the mouse back up into the menu bar and then retry.

Problem	Possible Cause	Possible Solution
• The date and time on some songs comes up blank.	• The date and time are displayed only if valid (later than 1985).	• Use the Control Panel accessory to set the correct date and time. When you turn your computer off, it loses the time unless you have a battery backed-up clock.

```
▓▓▓  I'm Without a Date Tonight  ▓▓▓
version 2 │
```

```
▓▓▓  I Finally Got a Date!  ▓▓▓
version 3 │ 04-22-88  04:37 pm
```
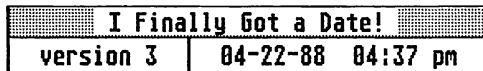
• Some .**SNG** files won't load.	• The song could have been created with a different program. Some other sequencers also create files with the .**SNG** extension.	• You can only load .**SNG** files created with Hybrid Arts programs.

```
     ⚠   Song not loaded successfully.



              [ OK ]
```
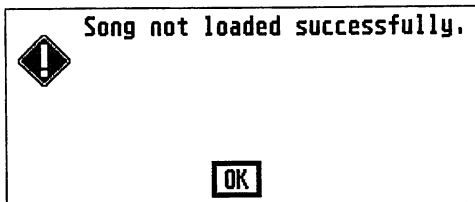
• GenPatch Accessory is not in the Desk menu.	• The Accessory was not properly loaded.	• Refer to page 6-4 for a detailed description of loading accessories.

Problem	Possible Cause	Possible Solution
• Every time the song plays, my instruments change patches but I don't want them to.	• Patch changes are recorded the same way as Note Events. When the sequence gets to a patch change event, it changes the patch setting on the assigned instrument.	• Don't change patches while you are recording the music. Instead, record all music with one patch setting (you may want to filter patch changes -- MIDI Input Filters option). Then go back and record all the patch changes on a separate track. You can then turn off the patch track and the patches won't change. • Optionally (but more tediously) you can step through the sequence by beats or ticks to find suitable Punch-In/Out times for removing patch changes one by one.
• Some notes don't seem to play on my MIDI instrument.	• Some inexpensive MIDI instruments can only play a limited number of notes simultaneously. These is a limit of the instrument, not the sequencer. (Observe the Track Activity Indicators to get an idea of how many notes are being played at one time.)	• If the instrument has Mono Mode (also called solo mode), this causes it to play only one voice at a time per channel. • Some instruments have different patch settings. One patch may play 8 voices at once; another may only allow you to play up to 4 notes. Be aware of these settings.

<u>Problem</u>	<u>Possible Cause</u>	<u>Possible Solution</u>
• The song I saved doesn't appear on my disk when I try to reload it.	• You may have named the song with an extension other than .SNG.	• The filename is 8 characters long. The extension consists of the 3 characters after the period. When you name your song, be sure to only use the first 8 characters. • Quit the program and rename your song with an .SNG extension (refer to Renaming Files in your Atari owners manual).
• When I load my song in, I don't get the most current version.	• It is possible to save different versions of the same song to different disks with the *same* filename.	• Make sure you have the correct disk in the drive. • Also be aware of the Current Drive setting and make sure you are accessing the correct drive.

Problem	Possible Cause	Possible Solution
• A message says that the MIDI input buffer overflowed.	• If continuous MIDI information is being received at the MIDI input, selecting a menu or dialog box may cause the MIDI memory buffer to overflow. The source of this continuous data may be Clock from a drum machine, or data from a loose joystick, wheel, or lever on your keyboard.	• If the source of the continuous data is a drum machine, disable MIDI Clock output on it. • If the source is a loose pitch wheel and you don't need to record pitch bend, filter Pitch Bend (using the MIDI Input Filters option in the MIDI menu). • If the source is a joystick, wheel, or lever other than pitch bend, and you don't need to record any continuous controllers, filter out Controllers. • You can ignore the problem in most cases, as it usually occurs when you don't have important data in the KEEP buffer anyway.
• The KEEP button lights when you're not doing anything.	• Some sort of MIDI information has been received. The source may be data from a loose joystick, wheel, or lever on your keyboard.	• Filter Pitch Bend and/or Controllers (in the MIDI Input Filters option) if you don't need to record those types of events. • The KEEP buffer will be cleared when you click on PLAY to start recording.
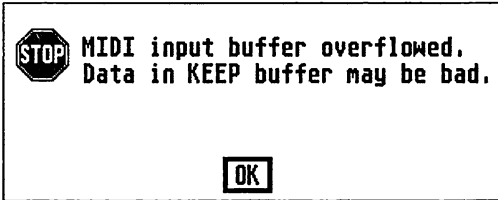
MIDI input buffer overflowed. Data in KEEP buffer may be bad.

OK

KEEP

Problem	**Possible Cause**	**Possible Solution**
• While I'm recording or editing, a memory limit message appears.	• The KEEP buffer's capacity has been exceeded by MIDI input, or there wasn't enough unused memory to hold the temporary data needed during an edit operation.	• If you want to play on your keyboard while EZ-Track Plus is not playing, click on the Counter Reset Button to reset the counter to the beginning of the song. If the counter is at 00000.00 and the KEEP buffer overflows from MIDI input, no message will be shown, and EZ-Track Plus will automatically clear the KEEP buffer.

Memory limit exceeded!

OK

• If a track edit runs out of memory, you need to either delete some unnecessary tracks, or make more memory available to EZ-Track Plus (after quitting). See page 3-7 for a note about song memory capacity.

INDEX

Information Report Sheet

We are constantly improving our products. Any suggestions or problems you bring to our attention would aid in assuring you receive the finest quality product possible. Please write down your ideas, fill out the following information, and mail it all to Hybrid Arts, Inc. Product Support Division, 11920 W. Olympic Blvd., Los Angeles, CA 90064.

Your Address

Name

Street

City   State   ZIP

Hybrid Arts Product Description

Name   Warranty #

Version/Release

Addtional Information

Other Software Being Used

Additional Desk Accessories
and/or AUTO Folder Programs
Being Used (Non-Hybrid Arts)

Your Computer/Studio Set Up (Circle equipment you currently use)

Computer Type	Monitor Type	Disk Drive Capacity	Extra Drives
520 ST	Color	Single-Sided	Drive B
1040 ST	Monochrome	Double-Sided	Hard Disk
MEGA 2			Size: Meg
MEGA 4			
Extra RAM (amount):		Printer Model:	
Peripherals:			

Problem Description

If you can provide any addtional information (exact steps to repeat problem, Alt-Help screen dumps, etc.) it would be greatly appreciated.

_____

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Hybrid Arts Technical Department Use

Hybrid Arts Product Support

Hybrid Arts provides phone assistance to registered users of their software. To be eligible for phone support, you must return the registration and warranty card that comes with your package. Hybrid Arts support specialists are available to answer questions related to any Hybrid Arts software products, but before you call, please follow this procedure:

[1] Review the section of the manual containing the information on the operation you are trying to perform. Check before this section for any misunderstood words or symbols and clear up any you find to your satisfaction. Restudy the section you were having difficulty with and see if it doesn't make more sense.

[2] If you still can't make your Hybrid Arts Product perform as you desire, please write down the exact problem or question in detail so that you can convey this to the support specialist.

Please Write To:

Hybrid Arts, Inc.
Product Support Division
11920 W. Olympic Blvd.
Los Angeles, CA 90064

Hybrid Arts
Product Support
Talk Lines
(USA): (213) 826-3777
Calling hours: Monday-Wednesday-Friday 12:00 - 4:00 PM pst

Additional Support

There is also a Hybrid Arts Bulletin Board Service. This is a service available via modem. Leave questions about specific products or general questions regarding MIDI. Our Support Specialists' answers are quick and direct.

Hybrid Arts
Bulletin Board Service
(USA): (213) 826-4288

Hybrid Arts Product Philosophy

You are our most valued customer. By purchasing this program and sending in the Warranty Card, you will become a part of our priority support/upgrade system that insures continued access to state of the art music technology. The Hybrid Arts Upgrade and Support System works in 3 ways:

1. **The Upgrade System**
   For all programs that have an upgrade path, a warranty owner with the proper card on file can purchase the more advanced program for the increase in retail plus a $15-$25 upgrade fee. Updates (new versions of the same program) can be obtained for just the upgrade fee.

2. **The Free BBS System**
   Hybrid Arts has a 24-hour computer **Bulletin Board Service** called the MIDI World Network. This can be connected to via modem and will allow access to all kinds of MIDI information as well as thousands of DX, CZ, and other popular instruments' patches. These sound files can be downloaded for use in your synths. The system also has song files that can be downloaded for use with EZ-Track Plus and MidiTrack ST. The MIDI World Network BBS number is 213-826-4288.

3. **The Help System**
   Hybrid Arts offers over-the-phone technical support to warranty owners. If you have read both owners manuals (the one supplied with this Hybrid Arts product and the one supplied with your MIDI keyboard) and are still experiencing difficulty, call the Hybrid Arts office number 213-826-3777 and ask for technical support. The hours for technical support are MON-WED-FRI from 12 to 4, Pacific Time.

Hybrid Arts Product List (now available)

ADAP SoundRack (Analog to Digital Audio Processor)
16-bit, 44.1kHz stereo sampling, editing. Writes direct to hard disk for digital mastering. SMPTE-triggerable samples. Reads most of the standard sampler disk libraries that already exist.

SmpteTr⌐ ⌐k & SyncTrack from the MidiTrack ST Series
60 tracks ⌐x, ur ⌐ix, transpose, changing tempos/meters, Graphic Editing allows redrawing of pitch bend-aftertou⌐ ⌐ ⌐ocity-controllers, Text Editing, etc. SmpteTrack includes SMPTE time code read/write capabⅼ ⌐ies.

EZ-Track Plus
The new 20-track polyphonic MIDI recorder for the ATARI ST. This program includes such features as Punch-In / Punch-Out, Cut & Paste, Auto-Locate, Mix & Unmix, allows both real time and step time entry from the MIDI keyboard, Insta⌐ ⌐ ⌐anspose, Quantizing, and a .5 to 480 BPM tempo range.

DX-Android & CZ-Android
These two programs are making the task of programming MIDI instruments very easy. They both contain Artificial Intelligence algorithms that generates new patches by itself. The DX-Android works with the DX-7 and the TX-ToneRack Modules. The CZ-Android works with the CASIO CZ- synthesizer series.

EZ-Score Plus
Professional Music Printing is essential to a complete studio system. This program allows you to achieve that flexibility: over 100 music symbols, Lyrics, convert sequence files.

HybriSwitch
Have ALL of your programs in memory at the same time. Then just press a butto⌐ ⌐o switch between them. Runs with most applications. For more information, contact Hybrid Arts.

MIDIPLEXER
This hardware box expands your Atari to 2 MIDI Ins, 4 MIDI Outs, and 64 separate MIDI Channels (when used with any of the MidiTrack ST sequencers). For more information, contact Hybrid Arts.

For a complete updated CATALOG & NEWSLETTER, Write To:
Hybrid Arts, 11920 W. Olympic Blvd, Los Angeles, CA 90064

Hybrid Arts, Inc.™

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