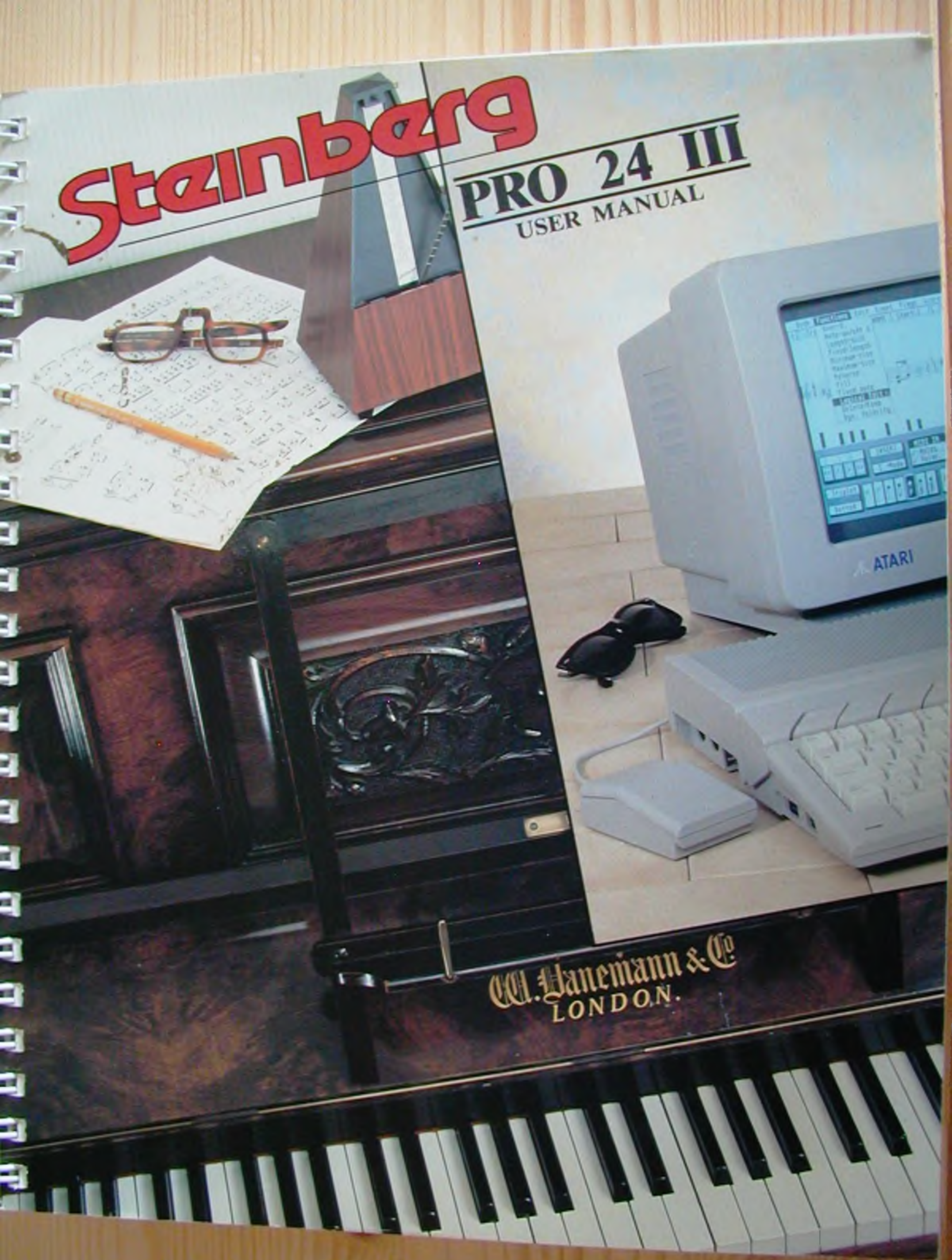
Steinberg

PRO 24 III

USER MANUAL



READ THIS!

There are some pitfalls we want to make sure that you avoid before starting to work with Pro-24 III.

COLOR MONITORS

If you have a color monitor, make sure it is set to **medium** screen resolution, or the program will not run. To set screen resolution, choose **Set Preferences** from the **Options** menu before you start Pro-24 III. Click on **Medium** and then **OK**. To save this setting, choose **Save desktop** from the **Options** menu.

BACK UP COPIES

The first thing you do is to make a backup copy of your disk . If you are not familiar with this procedure, consult your Atari ST Operation Manual. This copy will run without problems as long as you have your Key (the plastic cartridge that comes with the program) inserted into the cartridge port. The master disk is single sided but you may very well copy the files to a double sided disk or harddisk. Remember to include the files TAPE. RSC and CTAPE.RSC when copying.

SAVING

Program crashes has always happened with computers, and a major crash will probably result in that the Song resident in memory being lost forever. The only way to insure yourself against disasters is by saving regularly while working. Disks can also get damaged, so making backup copies of your music is a must!

DEF. SNG

When you copy the master disk, make sure you copy all files, including DEF.SNG. This Song sets all parameters to initial values. These values can later be changed, and a new DEF.SNG can be stored on disk.

Some settings in the DEF.SNG can affect the MIDI-equipment in your system, by setting them to different modes. If you wish to avoid this the first time you start up Pro-24 III you have to turn on power on the rest of your equipment before you boot up the program. After that, set all Definitions to the right values (see page 163 to 172) and save a new DEF.SNG with your program (see page 157). The next time you boot your system, Pro-24 III will set all your equipment to the modes specified by **you**.

COMPUTER KEYBOARD FUNCTIONS

If the computer keyboard commands don't seem to work, make sure you don't have Caps Lock activated on your ST keyboard. There is no way of telling if Caps Lock is activated or not, you just have to test it.

THE ST'S MIDI THRU AND MIDI CABLES

Atari decided to incorporate a MIDI-thru function in the MIDI Out connector of the ST. They did this by using the two pins in the DIN connector that MIDI normally doesn't use. Unfortunately some MIDI cable manufacturers (quite a few in fact) short-cut these pins with the normal MIDI-pins. This results in a **hardware** MIDI-thru function that cannot be turned off! Make sure the MIDI cables you use are of the right kind.

NOTE NOMENCLATURE

Pro-24 III , names notes after a German standard. Some of you might be confused by having to make a difference between c0 and C0 (c0 is one octave higher). Furthermore, c0 according to the German standard is known to many of you as C2. We had to chose a method, and hope you are satisfied with our choice.

QUANTIZE AND PLAYBACK PARAMETERS

The Quantize function among the Playback parameters should not be used for permanent quantizing, only for tests or as an effect. Instead you should use one of the other Quantizing possibilities (see Main Screen Quantize, page 45, and Grid and Score and Drum Edit, pages 77 to 138).

NOTE OFF CONTROLLERS

Roland Synthesizers continuously send out controller number 123 which acts as an All Notes Off command. This may lead to very confusing results when the same synth is used on more than one Track. Filter out this controller using the Controller Filter on the **Midi Definitions** page (see page 164).

RUNNING STATUS

This is a kind of data compression method that some sysnthesizers don't accept. If you have a Korg DDD-1 or DDD-5, an Ensoniq Mirage, a Sequential Prophet T8, or a very old Yamaha DX-7 you may have to set the Running Status flag to Off (see page 181) This is also the case if you use a Sequential Prophet 2000 or 2002 and want to send Program Change commands to it.

CONTENTS

Contents

INTRODUCTION

Pro-24 III is an extremely powerful music program, and therefore not entirely easy to understand at first glance. This Manuals purpose is to guide you through all the different functions, and also to work as a reference guide when you run into problems. The Contents List is laid out so that you easily will find the section you are interested in.

☞ **This manual assumes that you are familiar with the standard ways of operating your Atari ST. If you don't know how to handle discs, click, doubleclick, drag, or use pulldown menus you should go back to your Atari ST Operation Manual before proceeding.**

☞ ◆ **Bold** text paragraphs in this manual refers to parts that are specially important.

◆ *Italic* text paragraphs refers to sections that give hints about how to use a function.

◆ Words or letters inside brackets, like [Return], are keys on the computer keyboard.

THE DISK, THE KEY AND THE COMPUTER

Pro-24 III runs on any Atari ST with at least one megabyte of memory and TOS operating system in ROM. The program comes on a single sided disk, without copy protection. This means that you can copy the program to a harddisk or a double sided disk. However, you need to have the Key (the plastic cartridge that comes with the program) inserted when you use the program. Remember to include the files TAPE.RSC and CTAPE.RSC when copying.

☞ **The key is the verification to that you have actually bought the program. Do not lose it. Never insert the key with the power turned on on your computer.**

The program runs with color monitor monitors also, but only in Medium resolution. This manual refers to a black and white monitor at all times, but you will have no difficulty following the operations even if you use a color monitor.

MIDI

If you have used MIDI-sequencers or computer programs before and feel really comfortable with the concept and the Atari ST, please skip to page 15. But, if you feel a little bit insecure about how MIDI and a program like this relates, this following section is for you.

Pro-24 III is a music program for the Atari ST. It records information from equipment with a MIDI interface. MIDI is a standard agreed upon by the worlds different musical instrument manufacturers. The first intentions with MIDI was that you should be able to connect two synths, play on one of them and get the sound from both. As you know, MIDI-applications have evolved a bit since then.

MIDI is divided into a hardware and a software side. You don't have to know much about the hardware side to use it, but you have probably noticed that it uses 5-pin DIN connectors (though normally only three pins are used). A lot of different kind of equipment has MIDI implemented nowadays. Synthesizers, samplers and drummachines of course, but also reverbs and other effect boxes, guitars, violins, pianos, wind and valve instruments, mixing consoles and (as you know) computers.

● HARDWARE

All MIDI equipment have at least a MIDI Out or a MIDI In connector (usually both), and sometimes also a MIDI Thru. This last connector is supposed to just pass on data that has come in via MIDI In. Using that you can connect all your equipment in one long chain, with your Atari ST in one end, sending out data to all instruments. Great idea, but it doesn't work to well if you have a lot of gear. The problems that arise are mainly time delays, but if you are really unlucky you might lose data (like timing information) on the way.
A better bet is a MIDI Split or Thru box. With that you can con-

nect your computer's MIDI Out to the split box's MIDI In, and all the rest of your equipment to its MIDI Out's. This is sometimes called a **star** configuration.
Of course, the instrument that you play, whether it is a synthesizer, MIDI-guitar or whatever, should have it's MIDI Out connected to the Atari ST's MIDI In.

● SOFTWARE

The second part of the MIDI standard is the language, or the code that is sent down the MIDI cable. Different musical events (such as pressing a key on a keyboard) are given status codes, and with them come some values (i.e. what key it was, and with what velocity it was played). Notes are coded in a special manner. Each time you play a note a **Note On** command is sent out to the instrument that should produce the sound. This makes the note play until a corresponding **Note Off** command is received by the instrument. If no Note Off command ever shows up, the note will sound forever. This droning effect is one of the most common problems with MIDI. Every Note On has to be matched by a Note Off.

The MIDI specification is full of events like the one described above. A lot of different happenings can be transmitted from one instrument to another. Among these are notes and their velocity (how hard or fast you played a note), keyboard pressure, pitch bend, program change (the fact that you switched to another program on your instrument) and modulation.

CONTROLLERS

The modulation wheel is actually a specific case of what MIDI defines as **controllers**. All the different things that you can use to articulate a note (except velocity, pitch bend and pressure) are controllers. Among these you find footpedals, footswitches, breath controllers, faders, buttons and a lot of other things. Controllers are identified by numbers, and only a few of those are standardized. The modulation wheel is controller number 1, and is interpreted as vibrato in most cases. Other numbers are more or less standardized, and again others are free for any use.

MIDI-CHANNELS

All MIDI information discussed so far is MIDI-channel specific. This means that it is always sent on one of the 16 MIDI-channels. The concept of MIDI-channels may take some time to understand.

The purpose of the MIDI-channel system is to direct different parts of your music to different instruments. Thus you can have your melody playing on MIDI-channel 7, a bass line on MIDI-channel 1 and the drums on MIDI-channel 16.

But, since there are only three wires in a MIDI-cable, how you can send 16 channels in it?

☞ **Each note (or other event) has its MIDI-channel coded into it, and it is the receiving unit that determines by its settings if it is to play the note or not.**

Just like TV. You have all the different stations coming down into your antenna, and you decide by pressing buttons on the TV which channel you want to look at. All others are ignored.

Each single note that comes out of a MIDI device incorporates a MIDI-channel number. If you set your synth to MIDI-channel 1, all the notes coming out will have MIDI-channel 1 as part of their values. Sometimes you can make an instrument send on two or more channels, and many synthesizers and samplers can receive information on several MIDI-channels at the same time, and direct them to different sounds. If they have this ability, you say that they are multitimbral.

MODES

If an instrument is set to receive on all MIDI-channels, you say that it is in **Omni mode**. If it is set to receive on one MIDI-channel only, you say that it is in **Poly mode**. If it receives on many different MIDI-channels but only monophonically (one note at a time) on each of them, it is set to **Mono mode**. And lastly, if it can receive polyphonically on several MIDI-channels it is set to... well, there is no real official name for this, but it is usually called **Multi mode**. Most MIDI-equipment can be set to one of these modes from the outside, via MIDI.

OTHER MIDI CODES

Other parts of the MIDI specification are not sent on any particular MIDI-channel. These messages therefore affect all units in a system, regardless of what MIDI-channel they are set to. Such information is MIDI-clock, that for example make two drum machines play in sync, Song Position Pointer which tells MIDI devices where in a song they are, commands for Start, Stop, Continue and so on.

Another part of the MIDI specification is System Exclusive. This is used for information that can't be standardized, like the settings of a synthesizer. Each registered MIDI manufacturer has an ID code. When a System Exclusive followed by this ID-number is sent out, any information in any format can follow. This allows each manufacturer to transmit and receive information that only relates to that brand or model. It is mainly used for dumping presets and reprogramming synthesizers via MIDI.

MIDI IMPLEMENTATION CHARTS

Pro-24 III can receive and transmit all these different types of information. In fact, it may be able to produce MIDI-information that not all units can understand. Exactly how much of the MIDI-standard that is implemented in an instrument can be found on a **MIDI Implementation Chart** that usually is included in the instruments Operation Manual.

THE PRO-24 III CONCEPT

Pro-24 III is a MIDI recorder for the Atari ST, and it works in many ways as a regular tape recorder. The biggest difference is of course that it doesn't record sound, but MIDI-data. The consequence of this is that a part recorded with a piano sound may be played back by a sound more like a flute, or even a drum kit.

The computer in itself produces no sound, but relies on the MIDI equipment connected to it. If you only have one synthesizer, which can play only one sound at a time and is limited to eight note polyphony, well then that is your limits. It won't matter how many Tracks you record on, or how many MIDI Program Changes you put into your music, you will only hear one sound at a time, and never more than eight notes in one instant.

On the other hand, if you own, or have access to, several sound sources there is almost no limit to what you can do.

TRACKS

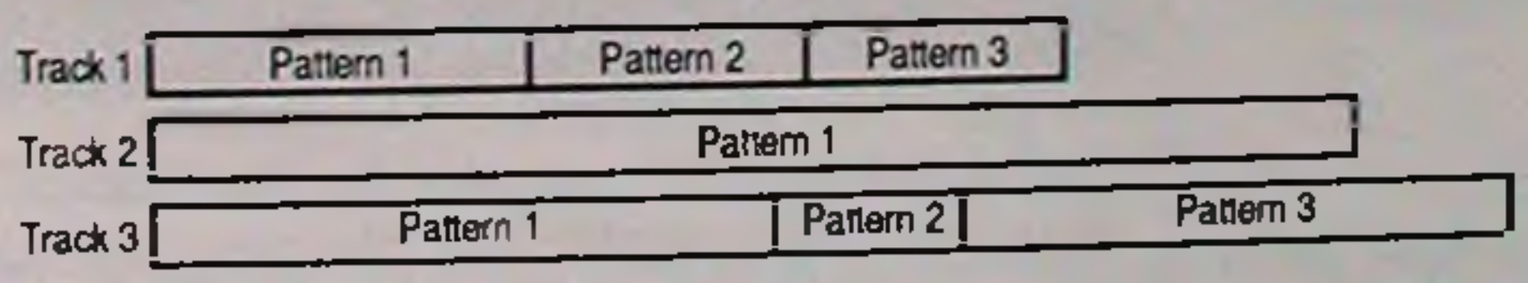
As the name implies, Pro-24 III is a 24-Track recorder. Normally you record on one Track at a time, but it is possible to record on up to 4 Tracks at a time. The Tracks are of course used to separate different musical parts from each other. One or several Tracks can be used for drums, others for bass and so on. The Tracks work very much as those of a regular tape recorder. It doesn't really matter what MIDI-channel the instrument used for recording is set to. Each Track can be set to play back on any MIDI-channel afterwards.

PATTERNS

Each Track can be divided into several Patterns which make up the different parts of a Song, intro, verse chorus, bridge etc. Patterns can be named for easy identification.

☞ **There is no relation between different Patterns on different Tracks.**

This means that Pattern number 2 on Track 1 can start on bar 9 and be 7 bars long, while Pattern number 2 on Track 3 starts on Bar 14 and is 4 bars long.



LAYOUT

Normal operation of the program is carried out from the Main Screen which lists all the different Tracks. On this screen you also find buttons that act like a tape recorders transport controls. A lot of other settings and operations can be done from this screen, some of them involve selecting functions from the pull down menus at the top.

The Locators are an important part of the program. They are

two points (positions) in the music that are used to specify where recording and playback should start (and end), and to direct editing to the music between these points. They are specified in bars/beats/fractions of beats counting from the beginning of the Song.

Once something is recorded it can be manipulated in several ways. A lot of this is done on the main screen, but there are special screens, Grid-edit, Score-edit, Drum-edit and Logical Edit that are dedicated to specific tasks.

All operations, except typing in names and numbers, can be done with the mouse, and quite a few commands can also be carried out from the ST-keyboard or even from your synth keyboard.

INSTANT GRATIFICATION

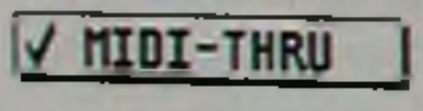
This section lets you start from scratch and hook up one instrument and record a few bars of music, just so that you know that your program is working. For all serious recording we refer to the later parts of this Operation Manual.

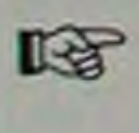
1. Connect the MIDI Out of the Atari ST to your instruments MIDI In, and the ST's MIDI In to the instruments MIDI Out. Or, if you are using a MIDI playing device that produces no synth sound of its own (like a guitar to MIDI converter) connect this to the computer's MIDI In, and a sound source to the computers MIDI Out.

2. Make sure your Pro-24 III key is inserted into the cartridge port, with the correct side up. Turn on your Atari ST and start up the program by **doubleclicking** on the program icon named **TWENTY_4.PRG**. Wait until the disc drive LED goes out and there is no activity on the screen. You should be confronted with the 24 Main Screen.

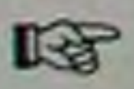
3. Switch on your MIDI-instrument(s) and set it (them) to send and receive on MIDI-channel 1. How to do this is described in their respective Operation Manual.

4. Pull down the menu **Midi**, and select the item **Definitions**. As you can see there are a lot of things that can be defined, but we are only interested in two things. The first is a little box marked **MIDI-thru**. If you click on this button repeatedly you can see that a tick appears and disappears to the left of the text.



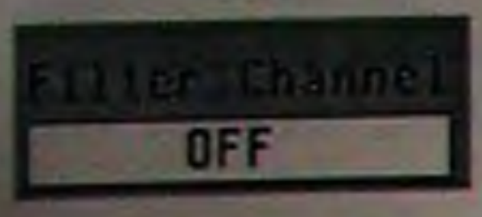


If you are using the same instrument for recording and playing back, this should be set to off (no tick). This means that the MIDI-data coming in via the ST's MIDI In is not immediately echoed back via its MIDI Out. If it did, you would be hearing double notes when playing your instrument.



If you are using a silent MIDI playing device and a separate sound module, this should be set to on (ticked). This ensures that MIDI-data coming in via the ST's MIDI In is immedi

ately echoed back via its MIDI Out. If it didn't, you wouldn't be hearing anything you played while recording!

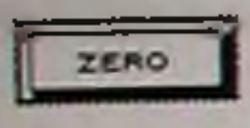


5. The second box of interest is the one with the words Filter Channel above it. If you press and hold the right mouse button pointing on this box the values increase. Hold the mouse button until the box says OFF (if it doesn't already).

6. Now click on the button in the lower right hand of this window, marked EXIT. The window disappears.

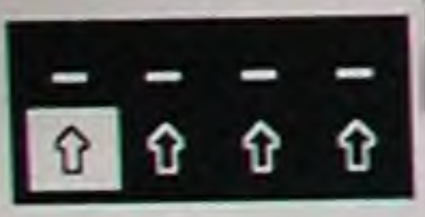
7. If you are ready to record something, click on the big black button RECORD, and you will get a two bar count in. Adjust the volume of the metronome on your monitor, if necessary. After the count in, start playing as long as you wish (but not more than sixteen bars).

8. When you are finished, use the mouse to click on STOP.



9. Click on the button on the left hand of the screen, labelled ZERO. This rewinds the "tape" to the beginning.

10. Click PLAY and listen to the result. When you are finished, click on ZERO again.



11. If you wish to overdub, you must select another Track for recording. On the top of the screen you find a row of twenty-four identical groups of symbols. The lowest of each one is an upward pointing arrow. Right now the arrow furthermost to the left is negative (black arrow on a white square) indicating that Track 1 is selected for recording.

12. Select Track 2 as your Recording Track by clicking once on its arrow.

13. Click RECORD, and you will get a two bar count in. After the count in, start playing as long as you wish.

14. When you are finished, click STOP.

15. Rewind the "tape" by pressing ZERO, and press PLAY to listen to your music with the overdub.

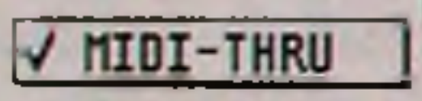
☞ **Congratulations, you have just finished your first recording using Pro-24 III. As you understand, you are just scratching the surface of the program. For serious recording, we must refer to the rest of this manual.**

MIDI SETUP

Connect all your MIDI-equipment in either a so called daisy-chain using the MIDI-thrus of each instrument, or use a MIDI splitter for a "star" connection. The problem with the thru connectors is that they often delay the MIDI-signals, and the last instrument in a long chain may therefore receive its data noticeably later than the first. A lot of these delay problems can be compensated for in the program, but a splitter box eliminates them completely. Also, the risk of having important data filtered out by an instrument in the chain is eliminated.

Either way, you have to have the instrument you use for inputting music in to the ST connected, with its **MIDI Out** connected to the computer's **MIDI In**. The equipment used for playing back the music should have its **MIDI In** connected to the computer's **MIDI Out**. One instrument may very well be used for both inputting and playing back music.

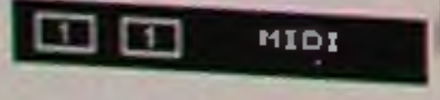
MIDI THRU



You have to tell the program if you want it to echo all incoming MIDI data on its MIDI Out. This is done by selecting Definitions from the Midi menu, and clicking on the box **MIDI-THRU**, thereby activating (tick) or deactivating it (no tick). The way you set the Thru function depends on whether you are using the same synth both for recording and playback (most likely you will deactivate this function in that case) or if you are using a device that doesn't produce any synth sound to input your music into the computer (in which case you will need to have the Thru function activated).

A hint about this is given in the Instant Gratification (page 15), and a full explanation of the MIDI-Thru command is given on page 166.

SELECTING MIDI CHANNELS



For each Track you have to setup which MIDI-channel it will send out on. On the upper black part of the screen you have a row of twenty-four boxes, each with a number in. To the right of all these is the word **MIDI**. Each of these can be set to MIDI-channel **1** to **16**. This makes the Track send out on the MIDI-

channel set, regardless of what channel the notes were coming in on.

You can also set the Track to MIDI-channel **No**, which makes it send out on the actual channel number stored with the notes (see page xx).

To set a Track to the right MIDI-channel, position the mouse pointer in the relevant Track's MIDI box and use the left and right mouse button to de/increase the value.

MODES

The first time you use Pro-24 III, turn on the computer and start up the program **before** you turn on the rest of the MIDI equipment. The reason for this is that the program can put all your equipment in to the right MIDI-modes, but since these vary from instrument to instrument, you must first set the right values for each one. This is done using **MIDI Definitions**, page XX. Otherwise, some instrument may be automatically set to a mode you don't wish it to be in at all.

OTHER DEFINITIONS AND FLAGS

You also have to take some more decisions about how MIDI-signals should be handled by the program, if you want the metronome sent out to one of your instruments and so on. All these settings can be found under the two menus **Midi** and **Flags**, explained on page XX to XX.

SYNC

Normally you will use 24's internal clock when recording. This means that you set the tempo and start and stop playback and recording from your computer instead of from some external device, like a SMPTE to MIDI converter or a drum machine.
However, if you are using an SMP-24, or for some other reason want to use external sync, please look up page XX and XX for more information. We strongly recommend you to avoid external sync when becoming familiar with the program, you have enough to keep track of anyway!

INPUTTING VALUES

Operating Pro-24 III means selecting different options, setting parameters to certain values and performing operations by clicking on buttons. This is all done by using the mouse and the arrow pointer, or the computer keyboard (or a combination of both). For some of the operations you can even use your MIDI-keyboard for controlling the program (more info on this is found on page 169, Remote).

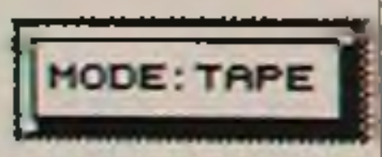
On page 183 you will find a list of all computer keyboard commands.

BUTTONS

A symbol on the screen used for activating a procedure or turning a function on or off is called a button. PLAY is an example of this. When you move the mouse so that the pointer is somewhere on top of this symbol and press either mouse button the music begins to play.

Other buttons are CYCLE and the twenty-four record select buttons (the little arrows) at the top of the screen. These are turned on or off each time you press them.

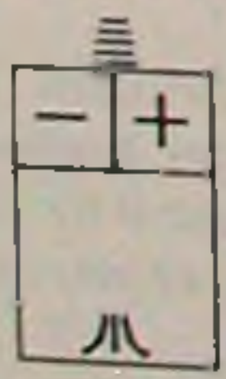
Yet another example of a button is MODE. MODE switches between TAPE and SEQ each time you click on it.



Many of the buttons can be accessed from the computer keyboard and a few of them from your MIDI keyboard.

VALUE BOXES

Sometimes a function can take on several values. The two boxes used for defining time signatures are examples of this. If you press and hold the **right** mouse button with the pointer over one of these boxes the value **increases**. If you use the **left** mouse button the value **decreases**.



Another way to change values of this kind is to use the Data Fader at the right part of the screen. This has two major parts. The two arrows at the top and bottom and the grey area in between.

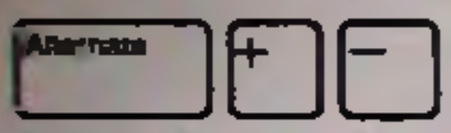
◆ First you must select the parameter to be changed by clicking once in the value box containing the value you want to change. The box turns negative (black on white).

◆ If you click on one of the Data Faders arrows the values in/decrease one step. If you hold the mouse button pointing at the arrow, the value changes continuously.

◆ The light grey area represents the total range of the parameter, with the highest value at the top and the lowest at the bottom. If you click once in this area the values changes corresponding to where you clicked.

◆ If you press and hold the mouse button within this area the pointer changes to a cross (+). While pressing the mouse button, "drag" the pointer up and down in the area and the value changes accordingly.

You can also use the [+] (plus) and [-] (minus) buttons on the computer keyboard to in/decrease most values.



For some value boxes you can try and hold the [Alternate] key while using the mouse or the [+] and [-] keys to change a value. This changes the values in larger steps.

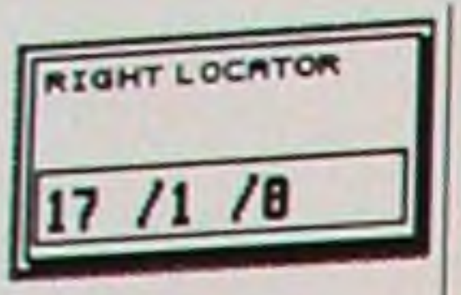
For some values you can also use the Remote Key and the Modulation wheel on your synthesizer to input values. This is described on page 169.

INPUT BOXES

Noname

Sometimes you wish to name something, like a Pattern. This is done by typing in the letters from the computer keyboard. If there is already some text in the box, you can erase it by clicking on it and pressing [Esc] on the computer keyboard or you can step over the existing text using the [Backspace] key.

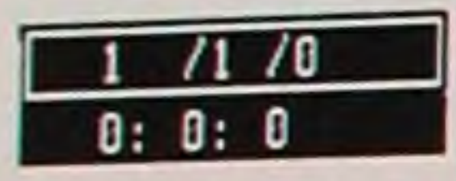
Other Input Boxes require that you type in figures, but the pro-



cedure is the same. Examples of this are the Left and Right Locator boxes, but these are a bit of a hybrid since their values can also be changed using the mouse or the [+] and [-] keys of the computer keyboard, just like with regular value boxes.

All different boxes and buttons can be accessed from the screen using the mouse. Some of them can be accessed from the computer keyboard. See page 183 for a complete map of all keyboard commands.

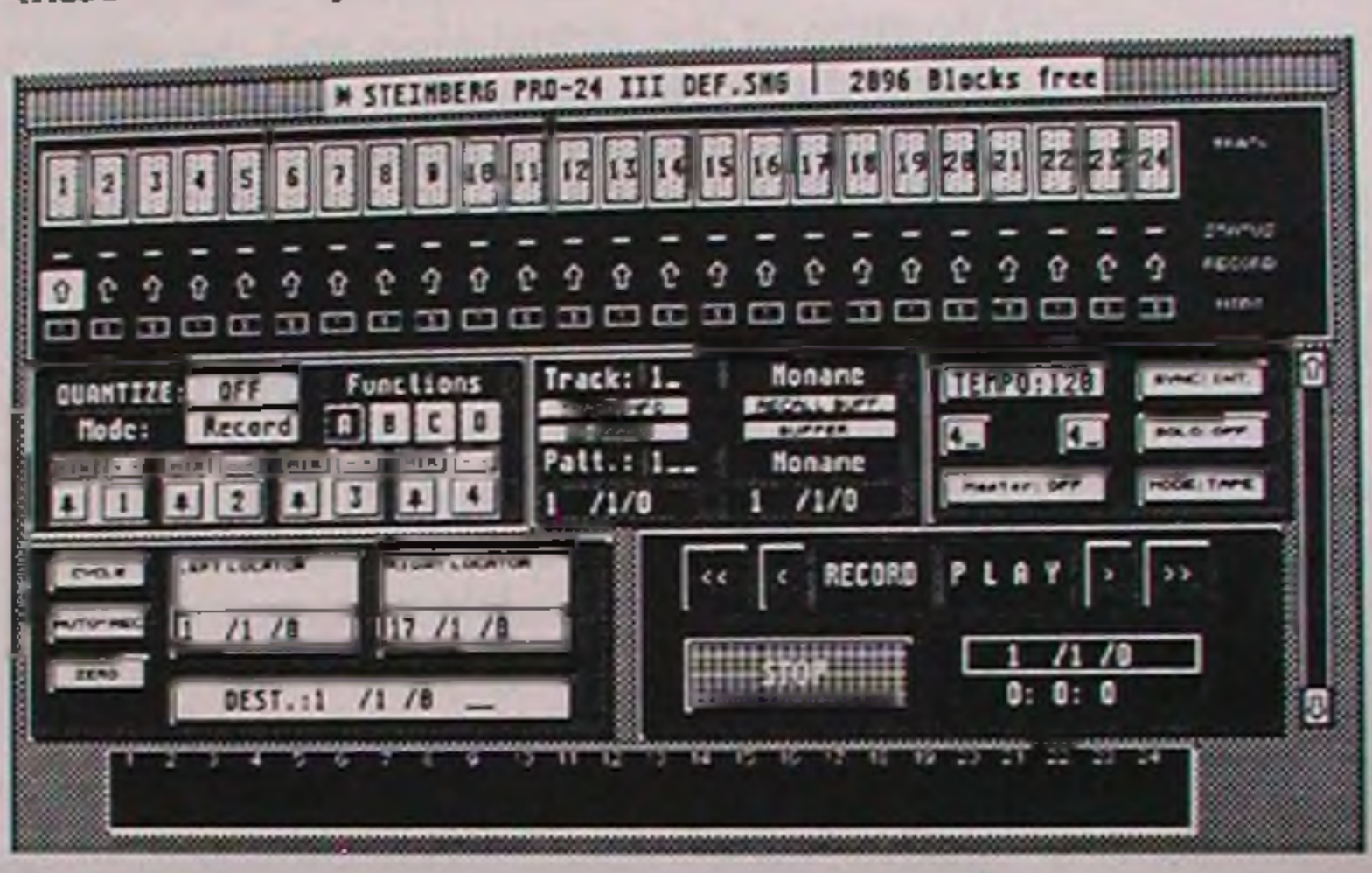
DISPLAY BOXES



Some boxes are just used for displaying values, you can't go in and edit them directly. Examples of such boxes are the two directly below the PLAY button indicating the current position in the music. The first one displays the position in bars and fractions of bars, and the second in hours, minutes and seconds.

BASIC OPERATION

When starting up Pro-24 III you are first confronted with the Main Screen. All basic operations are made from here. Occasionally a window pops up and places itself on top of the main screen. These windows can be as simple as asking you to click on any of two buttons (OK or Cancel) to confirm an operation, or as complex as Note, Drum and Grid Edit. Still, when you exit these windows you always return to the Main Screen.



On the top of the screen are the pull-down menus. These behave like normal Atari ST menus. Just below them is a line of text telling the name and the version of the program you are using, followed by a colon, the name of the current song and the amount of free memory for recording. This last value is in blocks, each representing 256 bytes.

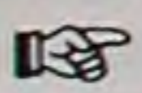
Next follows a large square holding twenty-four identical sets of four symbols on top of each other. The first row is numbered from 1 to 24. These are the Track Boxes. They are used for selecting which Track is to be affected by further editing like quantizing, deleting and so on.
The next row (initially made up of short lines) is the Track Status boxes mainly used for muting and unmuting Tracks. After that follows the row of arrows used for selecting which Track to record on.

The last row of symbols are for setting a Track's MIDI-channel (see page 32).

The next part of the screen is divided into five squares. The top left contains functions for the four Tracks that can be used for simultaneous recording. The next is for functions that are more Track and Pattern oriented, like copying and setting playback parameters, and the one to the right of this is for major functions like Tempo, Sync and so on.
The lower left of these squares is for functions that relate to the position of the virtual tape, and the square in the lower right hand duplicates the normal functions of a tape recorder, with buttons like PLAY and RECORD.
To the right of all this is the Data Fader described under Inputting values, page 21.

At the absolute bottom of the screen you will find a row of twenty-four bar graphs indicating MIDI activity on the corresponding Track. They jump up if any MIDI event is coming in to, or out from, that Track. This area is called the VU-box. The main purpose of this is for fault-detecting. It is a quick way of seeing if the program is sending out any MIDI data on that Track, and inversely if any MIDI data is received. On playback, the height of the bars also correspond to the notes' velocity.

RECORDING



Activating recording on a Track always erases that part of the Track, just as on a normal tape recorder. There is no way to directly overdub on a single Track. The only way to make up a composite part on one Track is to use the Mixdown command (page 75) or by dragging a Pattern to a Sub Track in Cycled recording (page 56).

Before starting to record you may want to check all your MIDI definitions (such as if THRU should be active or not) and set some of the flags in a way that suits you. More info on this is found on page 163 to 168.

You may also want to set the different Tracks to output on different MIDI-channels, so that you can direct your musical parts

to different synthesizer sounds. How to do this is described on page 32.

Another common operation is quantizing, or autocorrect. Basic quantizing procedures are described on page 45.

A lot of what is said in the following section relies upon the concept of the Left and Right Locators. Even if some of this text puzzles you during the first readthrough (since you are not familiar with the Locators) please read on, you will soon understand.

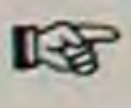
● TIME SIGNATURE

Before you record you may want to change the time signature. This is done with the two value boxes located just below the box labelled TEMPO. The left is the nominator, and the right the denominator. 3 in the left box and 4 in the right means 3/4 time.

Changing the values is done by clicking in the box. The mouse buttons, the computer keys [+] and [-] and the Data Fader can be used to change the values.

The left box can take on any value between 1 and 16, and the right can be set to 2, 4, 8 or 16. These settings only affect the metronome and the count in. If you set the time signature two 5/4 you will hear an extra beep on every fifth beat. If you change from 4/4 to 4/8 the metronome will beep twice as often and the count in will be half as long. The time signature can be changed anywhere in the music without affecting anything that is already recorded.

The volume of the metronome is adjusted using the volume control of the monitor you are using.

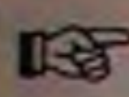


All position indications always follow the Time Signature set on the *Master Track* (page 140), not the one on the Main Screen. The Master Track is used for preprogrammed Time Signature and Tempo changes, and is activated/deactivated from the Main Screen (see page 140).

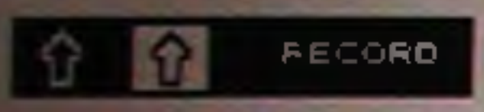
● MANUAL TEMPO

You can use the box TEMPO to change the tempo of your music while recording, while playing back or when 24 is stopped.

Click once on TEMPO. Use the mouse buttons, the Data Fader or the [+] and [-] keys on the computer keyboard to set the tempo.



For preprogrammed Tempo changes, see MASTER TRACK, page 140.



● RECORD SELECT

The little arrows at the bottom of the square displaying the twenty-four Tracks on the main screen are used for activating a Track for recording. Normally recording is carried out on one Track at a time. However, there is a possibility of recording up to four Tracks at a time. See page 58, Multi Recording.

Select one of the Tracks by clicking on top of one of the arrows. You can also use the numeric keyboard on your computer; keys [1] to [9] select Tracks 1 to 9. The **left** [Shift] key, plus keys [0] to [9] select Tracks 10 to 19, and the **right** [Shift] key, plus keys [0] to [4] select Tracks 20 to 24.

● ACTIVATING RECORDING

Click on the Button RECORD or press [*] on the computer keyboard. After the two bar count in recording is activated (if recording is set to begin in the middle of a bar, count in will be two bars plus the beginning of the bar in which recording starts).

Both the PLAY and RECORD buttons become negative (black on white).

When recording is activated, the button AUTO-REC also turns negative. Fore more information on the AUTO-REC button, see page 55.

The program keeps recording until you press STOP ([Spacebar] on the ST keyboard) or until it reaches a predetermined position in the music that is set to make it stop recording. This is done using the Right Locator, see page 34.

☞ **Recording doesn't have to start at the beginning of the music, the beginning of a Pattern, or even at the downbeat of a bar. You can start recording anywhere in the music. Recording always starts at a certain point in the music set with the Left Locator, see page 34 (except for when you do a Manual Punch In, see page 29).**

It might be a good idea to have two bars of empty "tape" before the first beat of your Song. That way you will have an automatic count in if you want to use your recording with live musicians. If you don't put this in to start with, it is easy to insert afterwards using the Global Insert command, described on page 147.

● ACTIVATING RECORDING DURING PLAYBACK (MANUAL PUNCH IN)

You can also manually "Punch In" while the music is playing.

Click on PLAY (or use the computer keys [Return] or [Enter]).

When the music reaches the point where you want to punch in, activate recording just as usual.

The program keeps recording until you press STOP ([Spacebar] on the ST keyboard) or until it reaches a predetermined position in the music that is set to make it stop recording (Right Locator).

☞ **You can not punch in during Cycled Recording.**

● RECORDING DIFFERENT TYPES OF MIDI INFORMATION

The MIDI specification consists, as you have understood by now, of many different types of events. Almost all of these can be recorded by Pro-24 III. But they can each be ignored for recording, playback or thru-put using the Filter commands on the MIDI Definitions page and among the Playback parameters (page 163 and 47 respectively).

What follows is a list of the different types of MIDI-commands and some special information about them.

NOTE COMMANDS

Notes are recorded with their original MIDI-channel saved if the **Rec. Channel** Flag is On (see page 181). But normally the MIDI-channel is altered on playback (as described on page 32).

CONTINUOUS COMMANDS

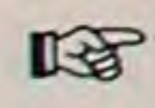
This includes pitchbend, controllers, pressure and (foot)-switches. This data can be recorded at the same time as the notes, or later on a separate Track. This allows you to do for example, all pitch bending afterwards, after the notes have been recorded. As long as you send out continuous commands on the **same MIDI-channel** as the note commands it will appear as if they were recorded at the same time.

PROGRAM CHANGE

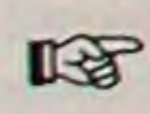
This is used to make MIDI-gear switch from one Preset to another. This can be recorded live, but you can also manually set up a Program Change number to be sent out at the beginning of a Pattern using the Playback parameters (page 47).

SYSTEM EXCLUSIVE

Sys-Ex's is a system for communicating things that can't be defined within the MIDI-standard, like the settings of a synth's presets. Pro-24 III has a special function for recording such events and storing them to disk, the Dump Utility (see page 173). If you want to record Sys-Ex's on to a Track, no problem. This will allow you (on some synthesizers) to record continuous timbral changes like the opening up of a filter. Just remember two things:



Sys-Ex dumps are usually pretty long. Avoid recording them at very high tempo settings.



Sys-ex recording can not be done in Cycle mode.

PLAYBACK

The Play function should be thought of as a "continue-play". This means that it plays back music from the position you are presently at, not necessarily the beginning.

Activate PLAY by clicking on the button, or by pressing [Enter] or [Return] on the computer keyboard. The PLAY button on the screen becomes white.

Even if there is nothing recorded, the program will keep playing the "empty tape" until you Stop it.

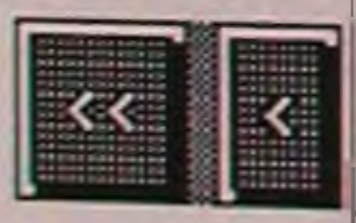
STOP

Manual stop of playback or recording is done either by clicking the STOP button or by pressing the [Spacebar] on the computer keyboard.

TRANSPORT CONTROLS

FORWARD AND REWIND

The whole idea of Pro-24 III is that your music is recorded on an imaginary tape. And just like on a tape recorder, there are buttons for rewind and forward.



Rewind (<) and Fast Rewind (<<) are located to the left of the RECORD button.

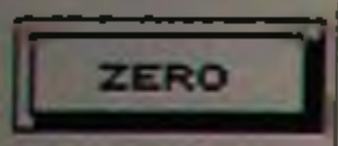
Rewind moves you backwards in "time" by steps of eight notes (half a beat).

Fast Rewind moves you backwards in steps of one whole bar.

Forward (>) and Fast Forward (>>) are located to the right of the PLAY button.

Forward (>) moves you forward in steps of eight notes and fast forward (>>) in steps of one whole bar.

These controls can only be used with the mouse, and it doesn't matter which mouse button you click.



ZERO

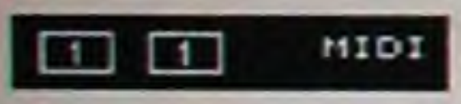
This small button on the left side of the screen is used for rewinding the "tape" to the **absolute beginning**. Since you don't have to start recording from the absolute beginning of the tape, the Zero command doesn't necessarily take you to the beginning of your music.

Click on the button using the mouse, or press [0] on the computer keyboard.

MIDI-CHANNELS

The whole idea of a MIDI sequencer is based on the concept of MIDI-channels. Pro-24 III is laid out so that it isn't really important which MIDI-channel the instrument you use for recording is set to. Normally you set a certain **playback** MIDI-channel for each Track.

But, the original MIDI-channel is normally included with the recording, and can be of use as we shall see.



On the upper black part of the screen you have a row of 24 square boxes with a number in. To the right of all these is the text MIDI. Each of these boxes can be set to MIDI-channel **1** to **16**. This makes the Track send out on the MIDI-channel set, regardless of what channel the notes were coming in on.

To set a Track to the right MIDI-channel, position the mouse pointer in the relevant Track's MIDI box and use the left and right mouse button to de/increase the value.

This parameter can also be set to the value **No**. This means that data is sent out on the same MIDI-channel as the instrument it was recorded with was set to. If you had a synthesizer set to MIDI-channel 3 when you recorded a part on a Track, the notes coming out of this Track will be sent out on MIDI-channel 3 when you set the channel to **No**.

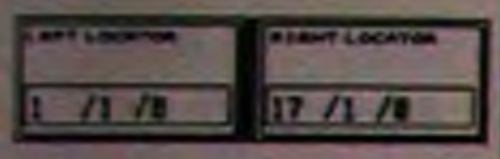
This is used in combination with Mix-Down and Remix to make a Track send on several MIDI-channels and to take apart recorded music containing notes on several MIDI-channels (see page 74).

TAPE POSITION AND REAL TIME COUNTER

Below the PLAY button are two display boxes.

The top one displays the position of the imaginary tape in bars/beats/fractions of beats. You will soon find that the fractions always position themselves to 0 or 48 when you stop the tape using the mouse or the computer keyboard. If you want to position yourself more precisely you must use the Left and Right Locators (see page 34).

The lower one displays the time elapsed from the beginning of the "tape" in hours/minutes/seconds.



LOCATORS

Many things that you do, like recording and editing, will be specifically directed to a certain part of your music. To specify two arbitrary positions in your music we have given you the tools Left and Right Locator. These are only two points set out on the imaginary tape, they don't do anything by themselves. If you know how the Locators on a multi-Track tape recorder work, you are familiar with the concept.

The Locators are used for defining where recording should start and end and for automatic punch in (AUTO-REC, page 55). They are also used for cycled recording (page 56) and all kinds of editing commands.

Locator numbers are defined by three figures, separated by backslashes [/]. The first represents bar numbers, the second beats (fourths), and the last is the beat divided into 96 fractions (also called fine count).

● TO SET THE LEFT AND RIGHT LOCATORS

The Locators can be set in a number of ways, listed below. Avoid setting the Left Locator to a position after the Right, since this will confuse the program (but it won't make it crash).

USING THE MOUSE

Click once on the Locator box you wish to change. Use the left and right mouse buttons or the Data Fader to de/increase the value.

USING THE COMPUTER KEYBOARD

Press [L] for Left Locator or [R] for right Locator.

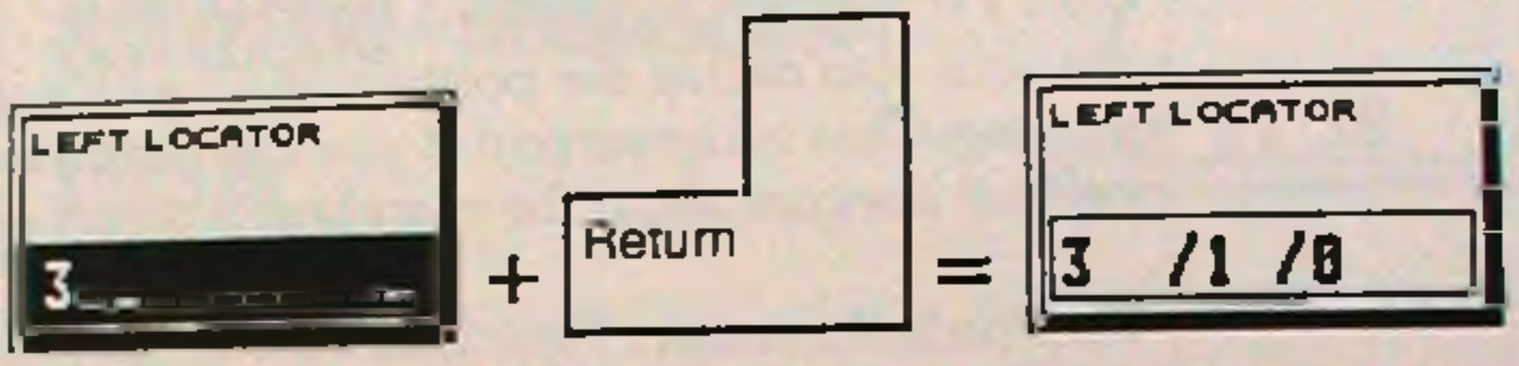
The input line becomes black, awaiting an input. Type the first figure, the bar number. Numbers between 1 and 999 are allowed.

Type a backslash [/] (or any other nonalphabetic symbol) and the number of the beat within the bar. In 4/4 time, numbers between 1 and 4 are allowed.

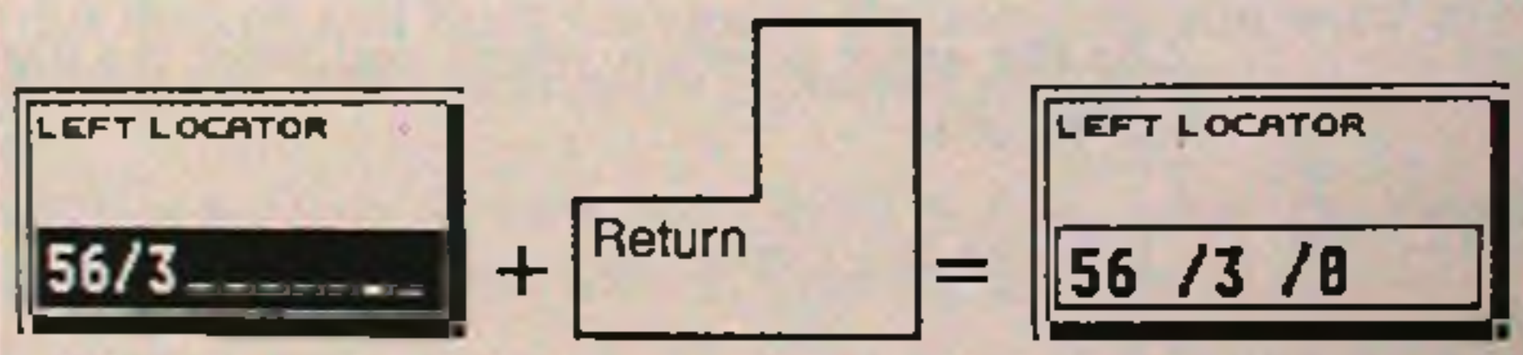
Type another backslash [/] (or any other nonalphabetic symbol) and the number of the clockpulse within the beat. In 4/4 time, numbers between 0 and 95 are allowed.

Press [Return]. The number is displayed.

If you don't need to specify the position down to the last figure, you can hit [Return] as soon as you have entered all relevant numbers.
An example: If you want to set a Locator to the beginning of bar three, just type 3 and then hit [Return].



If you wish to set it to the third beat of bar fifty-six, type 56, a backslash [/] (or any other nonalphabetic symbol), 3 and hit [Return].



Try using the [Spacebar] instead of a backslash, it's pretty hard to miss.

USING "+" FOR THE RIGHT LOCATOR

Sometimes you know exactly how many bars you want to specify between the Left and Right Locator, rather than the actual position of the Right Locator. You can then use the [+] (plus) key on the computer keyboard.

When typing in figures for the Right Locator, start with a + followed by the number of bars/beats/fractions you want it to be between the Left and Right Locator.

Hit [Return].

The Right Locator will take on the Position of the Left Locator plus the number of bars specified.

If the Left Locator is set to 3/3/1 and you type in +1/0/0 in the right Locator Box, The right Locator will be positioned at 4/3/1.

The "shorthand" techniques described earlier (omitting one or several figures) also work with this method.

SETTING LOCATORS ON THE FLY

You can also define the position of a Locator while the music is playing. This is convenient if you can hear the desired position, but feel insecure about the exact beat it occurs on.

Play back the music. Press and hold either [Shift] button on the computer keyboard.

At the exact position where you want the Left Locator to be, press [L].

At the exact position where you want the Right Locator to be, press [R].

Release the [Shift] key.

Naturally, you can just set either [L] or [R] if you wish.

DRAGGING LOCATORS

Musical positions can be dragged into the Locator boxes, using normal Atari ST dragging techniques.

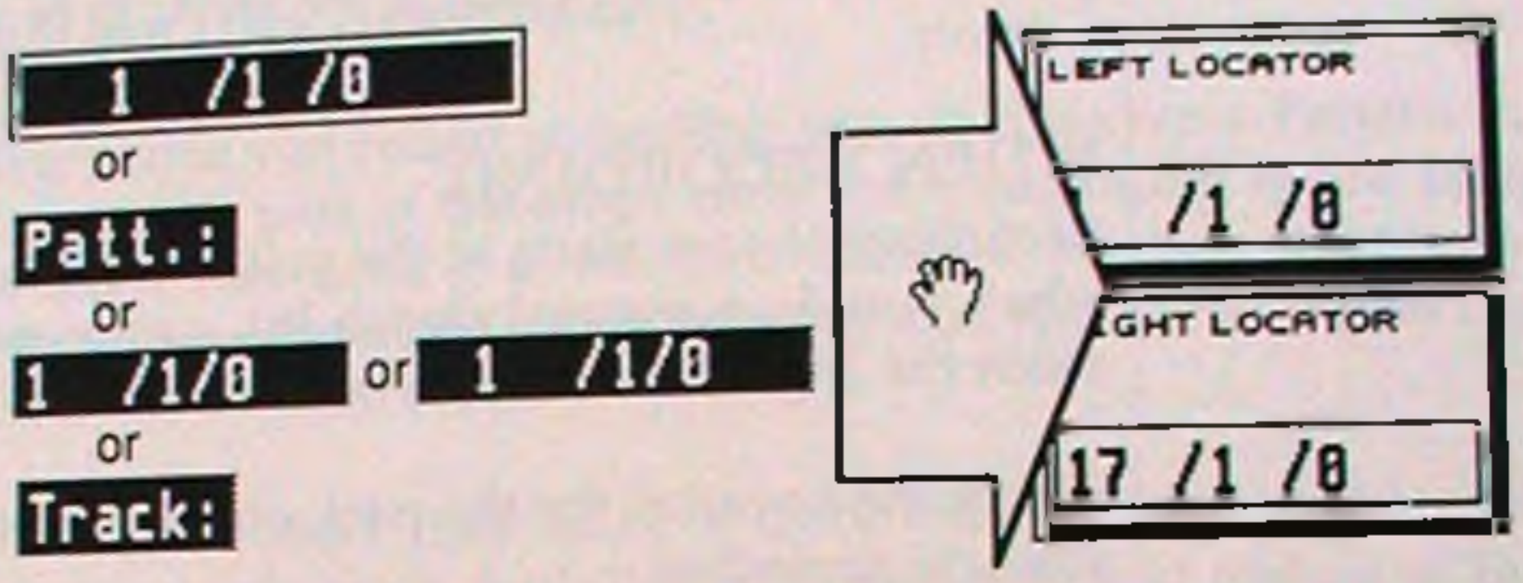
The **Tape Position** can be dragged into either Locator box. Its settings is then copied to the Locators.

The text **Patt:** can be dragged into either Locator Box. The current Patterns start and end points are then copied to the Left and Right Locator settings respectively.

The **beginning or end of the current Pattern** (see page 39) can be

dragged into either Locator box. Its settings is then copied to the Locators.

The text **Track:** can be dragged into either Locator box. The current Track's start and end points are then copied to the Left and Right Locator settings respectively.



PREPROGRAMMING LOCATORS

F1 – F10

The function keys [F1] to [F10] on the computer keyboard can be used for storing ten sets of Left and Right Locator points.

Set the Left and Right Locator to the positions you want to store using any of the techniques explained earlier.

While holding down *either* [Shift] button, press the Function key under which you want to store the settings.

☞ **This set of preprogrammed Locator points is stored with the Song when you save it to disk.**

RECALLING PREPROGRAMMED LOCATORS

To recall any of the preprogrammed Locator Point sets, just press the relevant Function key, [F1] to [F10].

● USING LOCATORS

Locators are primarily used for specifying recording start and end, punch in and out positions (see AUTO-REC, page 55), and for playing back the music from a certain point.

They are also used for the different Pattern and Track editing procedures to define a part of the music to be affected by the operation.

WHEN RECORDING

Recording always starts at the point of the Left Locator (except when you do a manual punch in), and stops either when you reach the Right Locator, or when you press STOP.

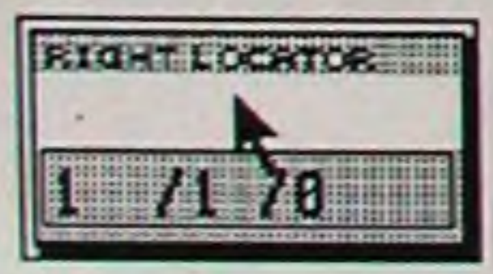
Set up the Locators for the part where you want to record, and activate recording.

You can also use the Locators for automatic punch in and out, see AUTO REC, page 55.

WHEN PLAYING BACK

You can set playback to begin at the position of the Left or the Right Locator. Since playback continues from the position of the Tape Position Box (just below PLAY and Forward) we have to find a way of changing the values in the Tape Position Box.

To set Playback to begin at the Position of the Left Locator, click once in the white area, below the text LEFT LOCATOR, and above the box containing the actual figures for the Left Locator. Alternatively, press [(] (left parentheses) on the computer keyboard.



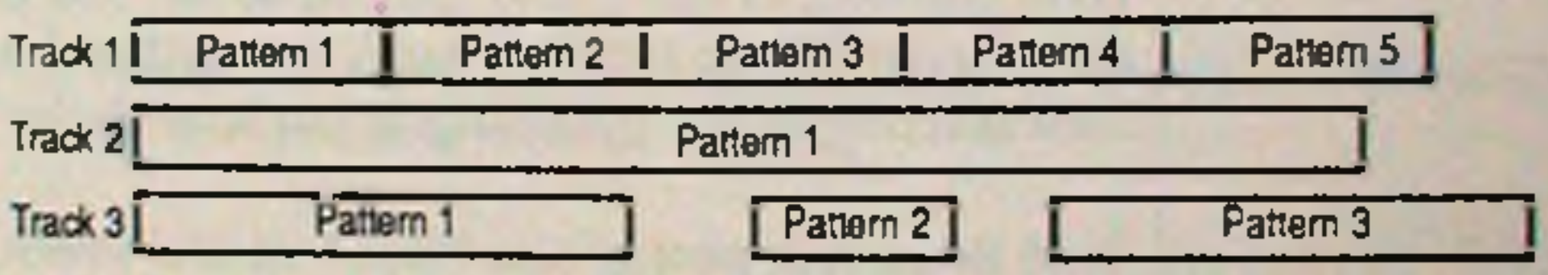
To set Playback to begin at the Position of the Right Locator, click once in the white area, below the text RIGHT LOCATOR, and above the box containing the figures for the Right Locator. Alternatively, press [)] (right parentheses) on the computer keyboard.

THE CONCEPT OF PATTERNS

You have already used and understood Tracks as a way of separating different parts of your music. Patterns are also used for separating your music into smaller parts, but whereas Tracks play simultaneously or in parallel, Patterns are used to organize **one** Track chronologically.

Every time you record something you do it within a Pattern. A Pattern is a part of the music on a Track beginning at one tape position and ending at another. It has a number (that may change when you add other Patterns) and you can also give it a name for identification.

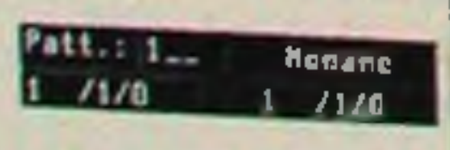
Different Tracks may have a different number of Patterns crammed into them, with Patterns beginning and ending at totally different positions. You are totally free to divide your bassdrum Track into one bar sections (many small continuous Patterns), make up the snare drum Track as one long take (one long Pattern), and still have a lead line dropping in and out on another Track during the song, in passages of totally different length (some arbitrary number of Patterns with gaps in between).



When you start normal recording (not a punch-in) on a part of a Track, recording **always** begins at the Left Locator position. Recording continues until one of two things happens. 1. You press Stop. 2. The "tape" reaches the Right Locator position.

◆ If the Track was empty between these positions, your Pattern will start and end where recording started and ended.

Simple enough.



You can verify this by checking the Pattern Start and End points just below the Pattern name and number.

◆ **If you record within the borders of an already existing Pattern, its length or Position within the song is not affected in any way.**

That means that if you have a Pattern on a Track, starting at bar 5 and ending at bar 13, you may very well drop in somewhere after bar 5 and drop out somewhere before bar 13. No surprises.

◆ **But, if you record within a Pattern and "step over" its End Point, the Pattern will be extended to the point where recording is stopped.**

This means that if you have a Pattern starting at Bar 3 and ending at Bar 5, and you start recording at Bar 4 and press STOP at 6/3/48, your Pattern's length will change. It will start at bar 3 and end at 6/3/48.

◆ **If you record within a Pattern and step over its End point into another existing Pattern, the two will be joined to one, and it will be named with the name of the first Pattern.**

Confused? Here is an example of this: You have a Pattern named John starting at bar 3 and ending at bar 5. The next Pattern, starting at bar 5 and ending at bar 9 is called Peter. If you now Record from bar 4 to bar 6 you will end up with a new Pattern starting at bar 3, ending at bar 9, with the name John.

◆ **If there is a part of the "tape" on the Track with nothing recorded on it yet, and you record a Pattern there, the number of the following Patterns will be shifted up one step. The new Pattern is inserted into the chain of existing Patterns. The different Pattern names are not affected.**

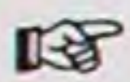
So, you manage to squeeze in a new Pattern between Pattern number 4 and 5. The new Pattern will get number 5. What used to be Pattern number 5 is now 6, what used to be Pattern 6 is 7, and so on.

☞ **And again, there is no relationship between different Patterns on different Tracks. All Tracks may have a different number of Patterns, starting and ending at totally different positions in the music.**

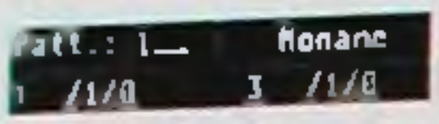
● SELECTING PATTERNS

Patterns can be selected from the Main Screen by using the value box to the right of the boxes **Patt:** and the pattern number.

You can scroll through the existing Patterns on a Track either by using the left and right mouse buttons pointing at the Pattern number, or by holding any [Shift] key on the computer keyboard and pressing the Left and Right arrows (also on the computer keyboard).



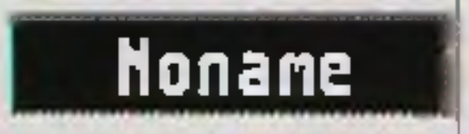
The [+] and [-] keys cannot be used for this.



The start and end points are displayed below the Pattern name and number.

● PATTERN NAMING

As explained in the paragraph The Concept of Patterns, a Pattern may have its number changed automatically. This means that the numbers aren't the best way of keeping track of the your Patterns. A better way is *naming*.



To the right of the Pattern number you will find a box used for the name of the Pattern. When a Pattern is first recorded it will be given the name NONAME.

To change this into something else, click in the box or press [N] on the computer keyboard.

Press [Esc] on the computer keyboard to clear the line, or [Backspace] over the existing text, and type in the desired name. Press [Return].

Don't forget [Return], because you will be stuck in this mode until you press it.

If the name already exists on this Track or another, a dialog box will tell you so. You will have to try again with another name.

Since the name is used for identifying the Pattern, the name should definitely reflect the position in the song (Examples: *1stverse, bridge, fade*). But it is also a good idea to incorporate something about the instrument idea of the Pattern (Examples: bass-fade, snaresolo, sixverse). Or, if you are the lazy type, just the part and a number (bass1, bass2, snare5).

UNDERSTANDING DATACOPY

During some Pattern operations you will sometimes have the option of doing it with or without **Datacopy** .

WITH DATACOPY

If, for example, you copy a Pattern to another Track with Datacopy you are doing a perfectly normal copy. The result is a new Pattern, completely independent of the one it was copied from, just as you would expect.

WITHOUT DATACOPY

If you copy without Datacopy, you are only telling the program that you want to use the same Pattern at two different Positions.

☞ **The result is actually only one Pattern with two different sets of Start and End points.**

This means that if you for example Quantize one of these Patterns, both will be affected. This is sometimes very practical, and at other times very awkward. But, the choice of either method (with or without Datacopy) is yours.

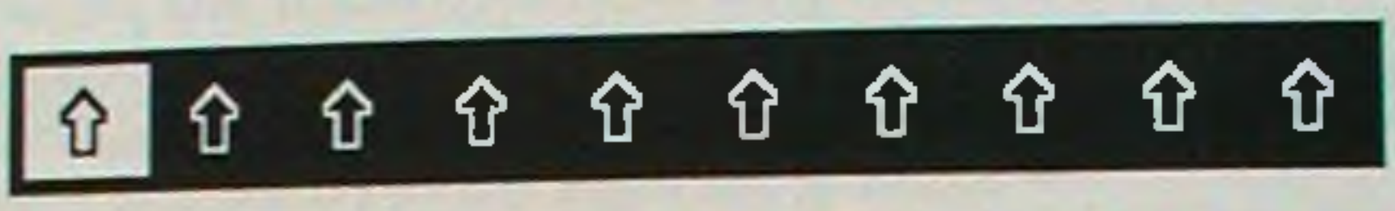
☞ **If you record something into a Pattern which was created by copying *without* Datacopy it will automatically be transformed into an independent Pattern (as if it was created *with* Datacopy).**

● SELECTING TRACKS

☞ **There are two different reasons for selecting a Track. The *first* is that you want to *record* something into it, and the *second* is that you want to *edit* it, or change its parameters in some way.**

SELECTING A TRACK FOR RECORDING

This is done by clicking on one of the twenty-four little upward pointing arrows. The selected Track's arrow will become negative (white on black).



This Track is called the Recording Track.

All recording is now directed to this Track until you select another Track (unless you are Multi Recording, see page 58).

Record select can also be done from the computer keyboard using the Left and Right arrows to step through the Tracks.

SELECTING THE ACTIVE TRACK

Along the top of the screen are 24 numbered, grey boxes. These are used for selecting which Track is to be displayed and affected by any editing you do.

Anything you do in form of editing, deleting, quantizing and so on, is directed to the **Active Track**.

☞ **Since this is not necessarily the same as the Recording Track, always make sure you have the right Track selected before performing any destructive changes. And save often to disk!**

You select one Track at a time by clicking directly on the numbered box or by clicking the value box beside the one named **Track:**. The Track number can in this last case be de/increased using the left and right mouse buttons as usual.

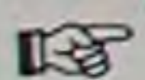
You can also use the **numeric keypad** on the right side of the computer keyboard to select an Active Track.

◆ Numbers [1] to [9] select Tracks 1 to 9.

◆ Holding the Left [Shift] button and pressing numbers [0] to [9] selects Tracks 10 to 19.

◆ Holding the Right [Shift] button and pressing numbers [0] to [4] selects Tracks 20 to 24.

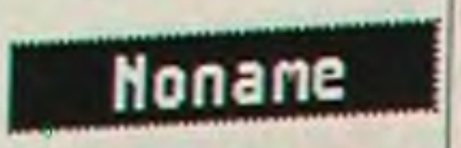
When you select a new Track this is reflected in the part of the screen showing parameters and functions that are Track dependent.



Tracks can also be erased and copied (see page 144) in a couple of ways.

● NAMING TRACKS

For easy identification you can give each Track a name. This is done in the same manner as when naming Patterns.



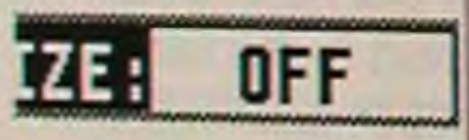
To the right of the Track number you will find a box used for the name of the Track. When a Track is first selected it will be given the name NONAME.

To change this into something else, click in the box. Press [Esc] on the computer keyboard to clear the line, or [Backspace] over the existing text. Type in the desired name and press [Return].

MAIN SCREEN QUANTIZING

You can quantize a **selected Pattern on the Active Track** directly from the Main Screen. This quantizing is destructive, i.e. it modifies data permanently. But, it can be undone using the RECALL BUFFER function (page 51). More quantizing features are found in Grid, Drum and Note Edit (see page 77 to 138). Quantize can also be automatic. But since this works with Cycled Recording only, it is described on page 58.

Make sure that you have the right Track selected as Active and the right Pattern selected (see page 41).



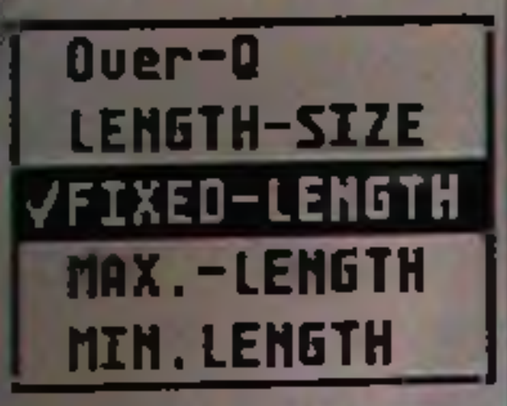
Set the quantization value in the box beside the box with the text **QUANTIZE:**. Using the left and right mouse buttons you can in/decrease the values from 1/4 to 1/32 triplets (T is for triplets). It can also be set to OFF.

When you click the mouse button pointing at the text **QUANTIZE:** a short menu is pulled down. Once down it behaves just as a regular ST menu, with one difference:

☞ **One item on the menu can be selected at a time. This then stays selected until you select another item.**

This is important as quantizing can be automatic when you are recording (see Multi recording, page 58) or selected from the computer keyboard. The selected type of quantizing is marked

with a tick. We are not concerned with automatic quantizing in this section. The procedure described here quantizes music after recording.



To quantize a selected Pattern, pull down the **QUANTIZE:** menu and click once on the kind of quantizing desired. The menu goes away, and the Pattern is quantized. Or, if you have the right kind of quantizing selected already, press {Q} on the computer keyboard.

OVER QUANTIZE

This is the most intelligent and musical quantizing method. It recognizes your style and quantizes intelligently. It doesn't matter if you consistently play ahead of or behind the beat, Pro-24 III understand and corrects.

It also recognizes chords and aligns them using the same method as above.

LENGTH-SIZE

Only quantizes the length of a note. The start of the note is not affected. This means that all the notes get a length that matches the quantization value, but they may start anywhere within the beat.

FIXED LENGTH

All notes are given the same length. The start of the note is not affected. The length of each note after quantization is the same as the quantization value. That is, notes FIXED LENGTH-quantized to 1/16 may start at any place within the beat, but they are always 1/16 long.

MAX LENGTH

Notes that are longer than the selected quantize value will have their length shortened to exactly the quantize value. The start of the note is not affected.

MIN LENGTH

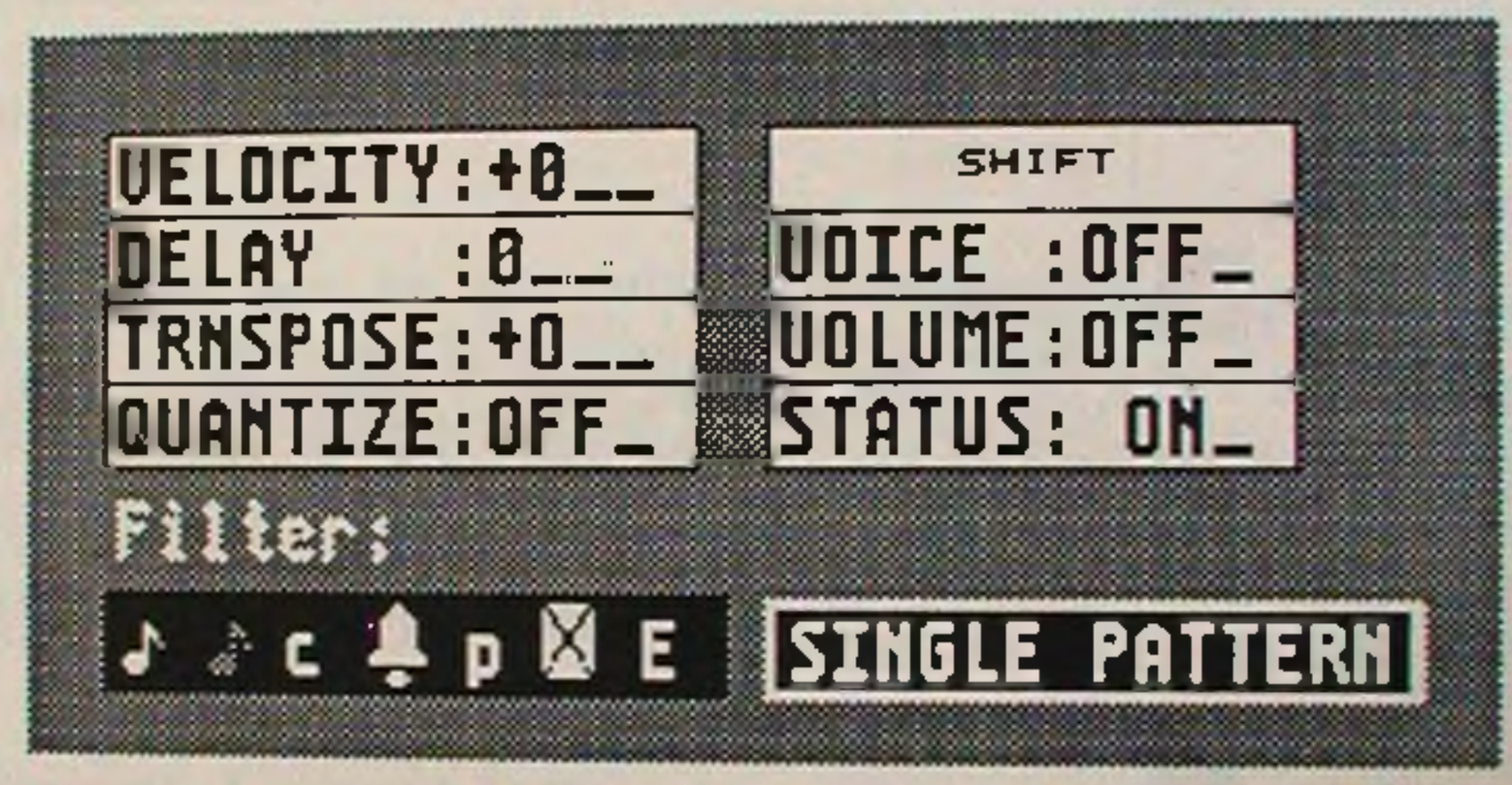
Notes that are shorter than the selected quantize value will have their length extended to exactly the quantize value. The start of the note is not affected.

You may very well use a combination of these techniques. For a dead straight staccato bass Pattern, first OVER QUANTIZE to say a 1/16. Then set the quantize value to 1/32 and select FIXED LENGTH. The first procedure adjusted the start of each note to the right position and the next gives them all the same (short) length.

TRACKINFO

TRACK INFO

If you click once on the text **Trackinfo** a window opens up on the left side of the Screen (if there is anything recorded on the Track). These are the Playback parameters. These are realtime functions that are implied during playback.



You move around in the box and use the mouse pointer and buttons to set the parameters. If you move above, below, or to the left of this window, it will close, but if you move to the right you can select a new Pattern or Track. The window is redrawn to reflect the change. You do not have to press anything to "confirm" your settings, they stay as they were when the window was closed.

SINGLE/ALL PATTERN

This function can be changed by clicking on it. In **All Pattern** mode, the settings will affect all Patterns on that Track. In **Single Pattern**, settings only affect the selected Pattern on that Track. This can be used to set up changes that happen each time a new Pattern starts to play.

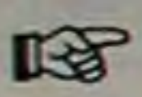
OUTPUT FILTER

By clicking on each one of the little symbols under the white text Filter, you can set up a filter that prevents different kind of data being sent out from this Pattern/Track. Clicking again turns them back on.

There are other ways to achieve similar effects. Pro-24 III has an input filter (see Page 163) that prevents unwanted MIDI data being recorded. You also have the option to permanently delete certain types of MIDI data using Logical Edit or Event Edit (page 118 and 92).

Note Off Filter. No Note Off commands will be sent out.

Note On Filter. No Note On commands will be sent out.



Normally the two above will be used in combination to shut off all notes.

Controller filter. Filters out all controllers. MIDI uses a system of controllers to transmit information about everything from sustain switches and modulation wheels to breath controllers.

Program Change Filter. Filters out all program changes that normally makes an instrument switch from one preset to another.

Pressure filter. Also called Aftertouch. On some keyboards you can apply pressure after a key is pressed, and this function filters out all such commands.

Pitch Bend filter.

System Exclusive filter.

VELOCITY

This function takes on two modes depending on the setting of the little box beside it. The two modes are SHIFT and FIXED. Select either by clicking in the little box beside the VELOCITY BOX.

■ **SHIFT**

Can be set from -127 to +127. This value is **added** to all notes' velocity value, thereby changing the volume of the part. The negative values lower velocity, and the positive raises it.

■ **FIXED**

Can be set from 0 to 127. This value **replaces** the notes' original velocity value, thereby giving all notes the same volume.

This naturally only has an effect on velocity sensitive instruments and sounds.

DELAY

Can be set from -96 to +96. The part is played **before** the other parts if this is set to a negative value, and **after** the others with a positive value. The numbers are fractions of a beat. The following list will help you to find the desired value quickly.

DELAY	NOTE VALUE
96	One quarter note
48	One eighth note
32	One eighth note triplet
24	One sixteenth note
16	One sixteenth note triplet
12	One thirtysecond note
6	One sixtyfourth note

You can use this to put a part (like a snare drum) ahead or after the beat and thereby adjusting the feel. It can also be used for synthesizers that are known to be slow in reacting to MIDI commands. Or, you can use it for echo effects if you copy the part to several Tracks, and delay them all differently.

Notes can however never be played before position 1/1/0 in a song. This is the absolute beginning of the "tape". To get around this you have to insert some empty "tape" between 1/1/0 and the beginning of your music. Use Global Cut/Insert to do this (page 147).

TRANSPOSE

A Pattern can be transposed up or down by 48 semitones.

QUANTIZE

This is a playback version of the Note On Quantize. It can be set in steps from 1/4 to 1/32 triplets (T is for triplets) or to OFF.

Use this quantizing merely for trying out a part or as an effect. For all serious correction, music should be permanently quantized (see Main Screen Quantize, page 45, and Grid, Drum and Note Edit.

VOICE

A MIDI Program Change number (1 to 128) can be sent out at the beginning of each Pattern. If you don't wish any number to be sent out at all, set this parameter to OFF.

This can easily be used to make a synthesizer switch to a new preset for each Pattern on a Track, or to set all synths to the right presets at the beginning of a Song. Or why not use a Track for Program Changes only?

The Program Change number is not sent out if the Track is set to MIDI-channel No.

If you hold [Control] on the computer keyboard while changing this value the Program Change number is immediately sent out. Use this to remotely switch between presets on your MIDI equipment.

Not all synths arrange their presets in a straight line starting at 1. Some start at 11 and divide their sounds in banks of 8, others have one set of numbers for internal voices, and another for cartridge. You have to consult the operation manual of each MIDI-device, to find out which Program Change number to send.

VOLUME

MIDI Controller number 7 is called Volume. Many synthesizers and other MIDI equipment understand MIDI Volume, but not all. Check your equipment's Operation Manual. If it works, it is a handy way of setting up a good mix in the beginning of a Song.

The Volume command is not sent out if the Track is set to MIDI-channel No.

STATUS

You can switch a whole Track on and off at the beginning of a Pattern. Just set this parameter to the right value, ON or OFF.

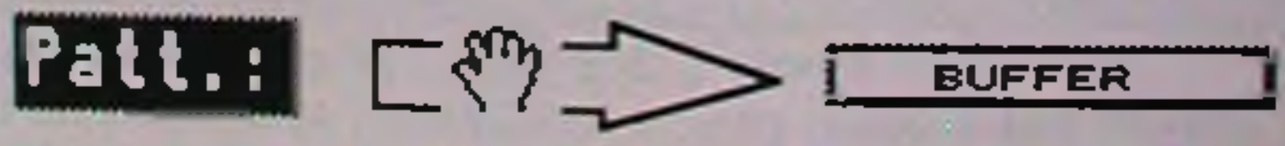
THE BUFFER

The selected Pattern can be put into a buffer, a temporary memory location that holds the Pattern until another Pattern is put into the buffer. This feature in combination with **RECALL BUFFER** makes it possible to delete a Pattern yet still recall it or to quantize without losing the original, and so on.

LOADING THE BUFFER

There are two ways of putting a Pattern into the buffer.

1. Select the Pattern. Drag the box with the text **Patt:** onto the box **BUFFER**.



2. Each time you Quantize manually from the Main Screen a copy of the original Pattern (as it was before quantizing) is put into the buffer.

If you want to check what is in the buffer at a given moment, double click on the **BUFFER** box. A dialog box displaying the number of the Track, the name and start and end points of the Pattern is shown. Click OK and it goes away.

USING RECALL BUFFER

RECALL BUFF.

When you click the RECALL BUFFER box the contents of the buffer are put back into their original place. This means that the Pattern will return to its original condition, the way it was before it was quantized, deleted or replaced.

You have to keep Track of what is currently in the buffer yourself, or RECALL BUFFER might do something you didn't want it to.

☞ **Remember that quantizing on the Main Screen automatically loads the buffer.**

MUTE (STATUS)

MUTING A SINGLE TRACK

You may want to silence one or several Tracks. This can be done while the program is stopped, during playback or while recording.

Between the Record Select arrows and Activate Track boxes there is yet another row of 24 boxes. These are the STATUS boxes.

When a new Track hasn't been used for recording the status box is a short line.

After the first recording on the Track, this symbol is changed to the text ON.

If you now click on one of these boxes, a diagonal cross appears, click again and ON comes back.

What you just did was muting and unmuting the Track. Muting prevents the Track from sending out any MIDI-information whatsoever. You can also mute the Active Track by pressing [Esc] on the computer keyboard.

Remember that there is also an on/off function that can be set for each Pattern in the Playback parameter window (page 47).

STORING GROUP MUTINGS

A set of mutings for all 24 Tracks can be preprogrammed using the Function buttons ([F1] to [F10]), just as Left and Right Locator settings can (see page 37).

Set up the individual Tracks to the muting configuration you want to store (as described on the previous page).

Press and hold the [Alternate] key and any [Shift] key on the computer keyboard. Press the Function button ([F1] to [F10]) under which you want to store your mutings.

USING GROUP MUTINGS

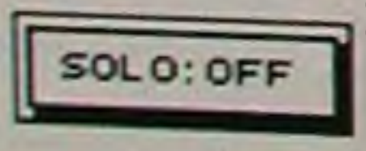
The preprogrammed Group Mutings can be recalled anywhere with in a Song, while the program is stopped or during recording or playback.

Press and hold the [Alternate] key on the computer keyboard. Press the Function button ([F1] to [F10]) holding the Mute Group you wish to recall.

☞ **Group Mutings are stored with the Song on disk.**

SOLO

A Track can also be **soloed** at any time. This means that you will hear this Track and no other.



Click on the button SOLO, it changes from SOLO:OFF to SOLO:ON and back each time you click on it. Or, use the [S] key on the computer keyboard.

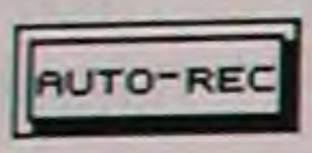
In SOLO: ON mode the Active Track is soloed. What really happens is that all Tracks but the Active Track are muted (see page 52).

You can switch to a new Solo Track by clicking on any Track's Status box in SOLO:ON mode.

AUTO AND CYCLED RECORDING

PUNCH IN AND AUTO RECORDING

Under the heading Recording in this manual we have described regular recording, and manual Punch In. There are also means of setting up automatic punch in and out positions. These are of course the Left and Right Locator settings (see page 34).



Each time you enter normal recording you may have noticed that a box named AUTO-REC goes black. This is the button used for automatic punch in and out. Remember when using AUTO REC that all that is said about Patterns on page 39 also applies to this type of recording.

Setup the Left and Right Locator to the positions where you want to Punch in (Left) and Punch out (Right).

Select a Track for Recording (Record Select, page 43).

Activate AUTO-REC by clicking on the button or by pressing [A] on the computer keyboard.

Backup the "tape" to some position **before** the Left Locator, and activate **playback**.

When the "tape" reaches the position of the Left Locator recording is automatically activated.

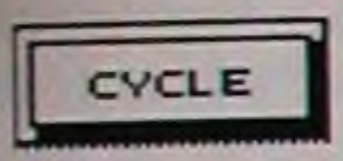
Recording continues until one of two things happen. Either you stop the program yourself (clicking on STOP or pressing the [Spacebar] on the computer keyboard) or you reach the Right Locator (the program stops automatically).

CYCLE AND CYCLED RECORDING

To playback a certain part of a song over and over again, you have the Cycle command. This can be used in combination with recording, or even Multi Recording as a powerful tool for making up complex musical Pattern and trying out ideas.

● CYCLE DURING PLAYBACK

Cycle makes the music jump back to the position of the Left Locator as soon as it reaches the Right Locator. This means that the Left and Right Locator positions form a loop of music that is repeated over and over.



To activate Cycle, either click on the CYCLE button, or press [C] on the computer keyboard.

You don't have to start playback within the loop. You may very well start from 1/1/0 and enter a Cycle beginning at 23/1/0 and ending at 29/1/0. This way, Cycle can be used for a repeating fade out.

● CYCLED RECORDING

Cycled recording is usually found on drum machines. A short Pattern is repeated over and over while notes are added or deleted. Cycled recording on Pro-24 III has all the features you could wish for. It also interacts nicely with Multi Recording (see page 58). There is only one catch:

☞ **You cannot record System Exclusive events in Cycle mode.**

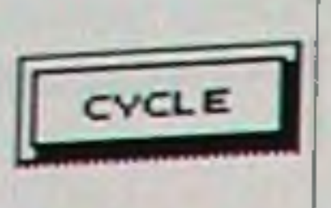
To understand cycled recording you must first of all know how the button CYCLE works, and also the Four-Track recording boxes.

This is the major principle: You setup a loop by setting the Locators to the right positions. You can then record on to four Tracks, quantize, erase and so on on each one independently, without stopping to select a new Track.

☞ **Auto Recording can also be used with Cycled Recording.**

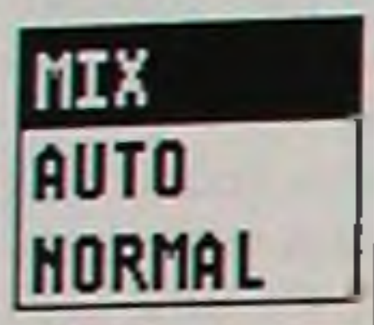
CYCLED RECORDING ON ONE TRACK

Set up the Locators.



Select CYCLE by clicking on the button or pressing [C] on the computer keyboard.

Select one of three Recording Modes, Mixed, Auto or Normal. This is done by clicking on the small text box (it probably says MIX) above the bell box on the *absolute* left side of the screen. A short menu falls down. This stays down until you click on one of the items or move the mouse pointer from the menu.



Select one of the items. Their function is described below.

MIX

Everything you play is recorded. You can Cycle through as many time as you wish, adding things each time.

AUTO

When you start playing in a cycle, your first note acts as an automatic punch in. If you have a cycle of eight bars and everything you recorded into it is perfect up until the beginning of the sixth bar, you just have to wait until the music reaches this point, and start playing there. Everything that was previously recorded before, from the sixth bar to the end of the loop, is erased and replaced with what you overdub. If this sounds complicated, just try it and you'll understand.

NORMAL

This is **not** the normal mode for Cycled recording, but rather the way Pro-24 III behaves when you are not using cycled recording. Each time you enter a new cycle, recording starts afresh if you play anything at any time during the cycle. This means that if you play something during a cycle, everything you had recorded on an earlier cycle is erased.

☞ **Normal is the only mode that doesn't play back any music on the Track while recording.**