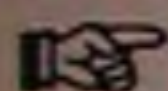


## LOGICAL EDIT

This is one of the most powerful and complicated features of Pro-24 III. It allows you to perform changes to your music based on logical or mathematical criteria, rather than musical.



Logical Edit has an "event" counterpart that acts on items edited on the Event Edit page. The differences between this and the Note Logical Edit are described in the end of this chapter.

Using Logical Edit involves two major steps.

1. You must set up conditions that will include or exclude notes or events of certain types. An example of such a condition would be "all notes above F#3 with any velocity value but 37".

You also have the option of specifying a Range within each bar of the Pattern, on the Logical Edit page, so that notes inside or outside that range only, will be affected.

2. The next step is to set up mathematical operations that affect the notes that meet the conditions. An example would be to transpose them all a few semitones or to multiply their MIDI-channel number with the value 3 (if you can think of a reason for doing that!). You can also set any of the notes' values to a certain fixed number.

You also have the options of deleting or quantizing all notes that meet the description.

Note	Pos.	Pitch	Veloc.	Channel	Length
		F 8	91	18	4
Conditions:	no	no	no	no	no
Arithm. Operation:	no	no	no	no	no
	no	no	no	no	no

Note	Pitch	Veloc.	Channel	Length																				
	***	***	***	***																				
Position-Range	LEFT: 3 8	RIGHT: 3 1																						
<table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Quantize</td> <td>Delete</td> <td>Transform</td> <td>Insert</td> <td>EXIT</td> </tr> </table>					Quantize	Delete	Transform	Insert	EXIT															
Quantize	Delete	Transform	Insert	EXIT																				



## ● THE SCREEN

Select Logical Edit from the Functions menu. The window is divided into five horizontal sections.

The first is used to setup the **Conditions** that are used to exclude/include certain notes. You can think of this as a super-advanced MIDI-filter.

The second section is used to setup which **Arithmetic Operations** (and with what values) are to affect the notes' values.

The third is used to set values to **Direct Values**.

The fourth is used to set up a **range** that will be affected or unaffected by the changes.

The fifth and last part holds **buttons** that can be clicked to perform the actual changes.

Vertically you will find that this page is divided into five sections each related to a notes' **Position** within the bar, **Pitch** (note-value), **Velocity**, **MIDI-channel** and **Length**.

## ● SETTING UP CONDITIONS

When you first enter Logical Edit the top line is automatically filled with the values of the selected note. You find these values just below the headings **Pitch**, **Veloc.** **Channel** and **Length**. To change a value, click in the box and use the left and right mouse button to de/increase.

To the left of these is a box with the text **Pos**. This can't be changed directly. To set a new **Position** you must use The **Position-Range** area on the lower part of the window.

Even further to the left is a box with the text **Note**. This is only there to tell you that you are performing edits on notes, not events.

Below the values mentioned above are boxes used to setup the actual **Condition** for each of them. You can step through the



possibilities using the left and right mouse buttons as usual.

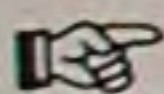
For **Position** these are the possibilities:

- no:** Notes will be affected regardless of their Position in the bar.
- inside:** Only notes inside the Position-Range of each bar will be affected.
- outside:** Only notes outside the Position-Range of each bar will be affected.

For all other values, these are the possibilities:

- no:** Notes will be affected regardless of this setting.
- equal:** Only notes with values equal to the value above will be affected.
- higher:** Only notes with values higher than the value above will be affected.
- lower:** Only notes with values lower than the value above will be affected.
- unequal:** Only notes with values unequal to the value above will be affected.

If you for example set the Pitch column to d3 and unequal, all notes that are not d3 will be affected.



You can combine settings from all columns, so that you can pinpoint notes with certain pitches, lengths, MIDI-channels and so on.

**An example**

This setting:

Note	Pos.	Pitch	Veloc.	Channel	Length
		d3	18	16	58
Condition:	no	lower	higher	equal	no

would include all notes that have a pitch that is lower than d3, have a velocity higher than eighteen, are stored on MIDI-channel sixteen, regardless of their length and position.



## ● ARITHMETIC OPERATIONS

Once you have setup the conditions so that you have decided *which* notes to affect, you must decide *what* to do with those notes.

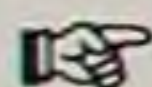
You can change *all* aspects of a note, its Position, its Pitch, its Velocity, its MIDI-channel and its Length. You can even change all these parameters at the same time.

To do this you must first select *what kind* of operation you want to perform. This is done using the left and right mouse buttons as usual, pointing at the row of boxes to the left of the text **Arithm. Operation:**.

These are the possibilities:

- no: This value is not affected in any way.
- plus: A number is added to the existing.
- minus: A number is subtracted from the existing.
- mul: The existing value is multiplied by a number.
- div: The existing value is divided by a number.

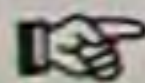
The row of boxes below these are used to specify the number used in the arithmetic operations. These can be set to whole numbers (integers) and fractions, ranging from 000.00 to 999.99



But, you must set each of the five figures in a number separately by pointing at them and using the left and right mouse buttons.

An example. This setting:

Arithm.	no	no	div	no	minus
Operation:	000.00	000.00	001.5	000.00	024.00



... would reduce dynamics (velocity) with a factor of one and a half, and shorten the notes' length by a 1/16th note. But only for those notes that meet the Conditions, of course.

If you want to use Arithmetic Operations you must set Direct Values to \*\*\* (off) for that column, since the Direct Values "take over" (overrides) the Arithmetic Operations.



## ● DIRECT VALUES

You can set any parameter to a direct value using the third section of this window. The boxes in this section have their own headings Pitch, Veloc. Channel and Length, and to the right of these is the word notes indicating that notes (not events) will be affected by these operations.

Use the left and right mouse buttons to set any of these buttons to \*\*\* (no effect) or any numeric value.

An example. This setting:



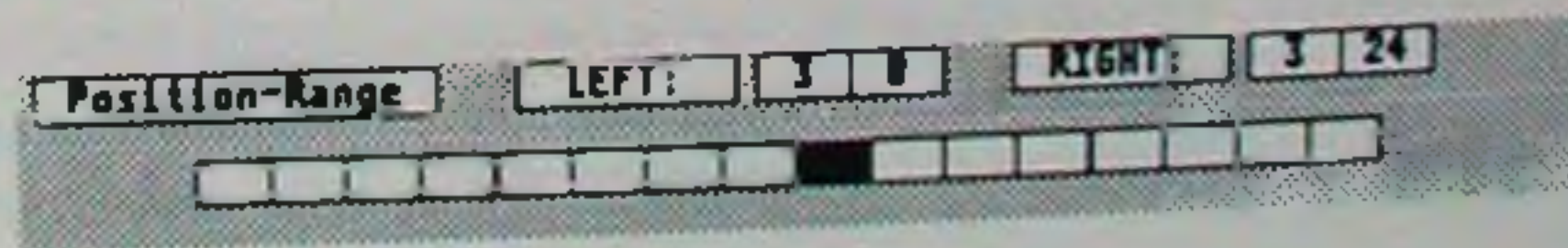
... would set all notes that meet the Conditions to full velocity (127) and MIDI-channel 6.

## ● POSITION-RANGE

If you want to use the notes' Position in the bar as a Condition you must set the Position-Range to a certain number of beats and ticks.

This can be done in two ways:

1. Use the left and right mouse buttons to set the numbers in the **LEFT:** and **RIGHT:** boxes. The first figure in each of these is the beat number, and the second the number of ticks within the beat.
2. Drag a rectangle in the "grid" below the **LEFT:** and **RIGHT:** boxes. Just as when forming a short range on the Grid-Edit page, you can use the mouse to drag a rectangle that specifies which part of the bar you want. Once set, the range can be "read" both graphically in the "grid" (it is black) and in the **LEFT:** and **RIGHT:** boxes.



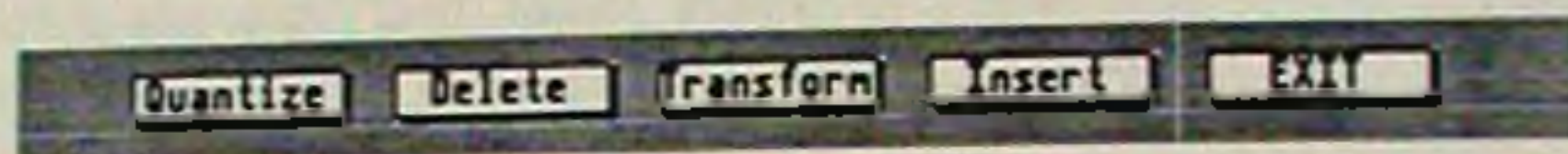
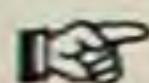


When you have the range set up you can use the Pos condition to direct editing to notes inside or outside the range within each bar. This means that you can for example Quantize only those notes that occur within the first beat of each bar.

You can not use the Transform command to "Logical move" notes. To achieve the same effect you must use a combination of Insert and Delete commands.

## ● PERFORMING THE EDITS

At the lowest part of the window are the buttons you use to perform your actual edits.



You can select any of these types of editing, change the Logical Edit parameters and select another of the four types of operations without exiting Logical Edit. You only have to exit Logical Edit when you are ready with all the editing.

### ■ QUANTIZE

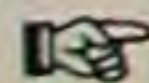
If you click on this button, notes meeting the conditions will be quantized to the Quantize value set on the edit screen (Score or Grid).

### ■ DELETE

If you click on this button, notes meeting the conditions will be deleted.

### ■ TRANSFORM

If you click on this button, notes meeting the conditions will be transformed according to your Arithmetic Operations settings and your Direct Value settings.



You can not use the Transform command to "Logical move" notes. To achieve the same effect you must use a combination of Insert and Delete commands.

### ■ INSERT

If you click on this button, notes meeting the conditions will cop-



ied, have their values transformed and will then be inserted into the Pattern. As you understand, this will insert new notes in a Pattern.

#### ■ EXIT

If you click on this button you Exit the Logical Edit window, and the changes are reflected on the Edit page behind.

*It is impossible to list all possible operations on the Logical Edit page, since they are endless. But if you think about Remix, Cutcopy, Global Transpose, the MIDI filters, Fixed Note, Delete/Keep, Velocity/Transpose and many of the other editing commands on the Main Screen and the Edit pages for a while, you begin to understand that they are actually special cases of Logical Editing. This should hint at the possibilities.*

### ● LOGICAL EVENT EDIT

This page is very similar to Logical Note edit. The differences are first of all the column headings that have changed to Value1, Value2, and (MIDI-)Channel (the fourth column isn't used). These correspond to the Event List on the Event edit page (see page 92 of this manual).

The two boxes to the left in the window that were stuck in Note mode can now be changed between the different Event modes, Press, Cntrl., Sound, A. Touch and Pitch (see page 92).

This makes it possible to set up one type of events in the Conditions Section and transform this to another type of event by selecting that type in the Event box in the direct Value section.

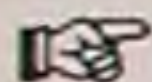
*As said already, this function can be used to transform one type of event to another, pressure to a controller for instance. This is a handy way of making up for different synthesizers different abilities. You can also change a controller number to another, there by redirecting controller events, or scale controller events or pitch bend so that it suits the receiving device, and so on...*



## DRUM-EDIT

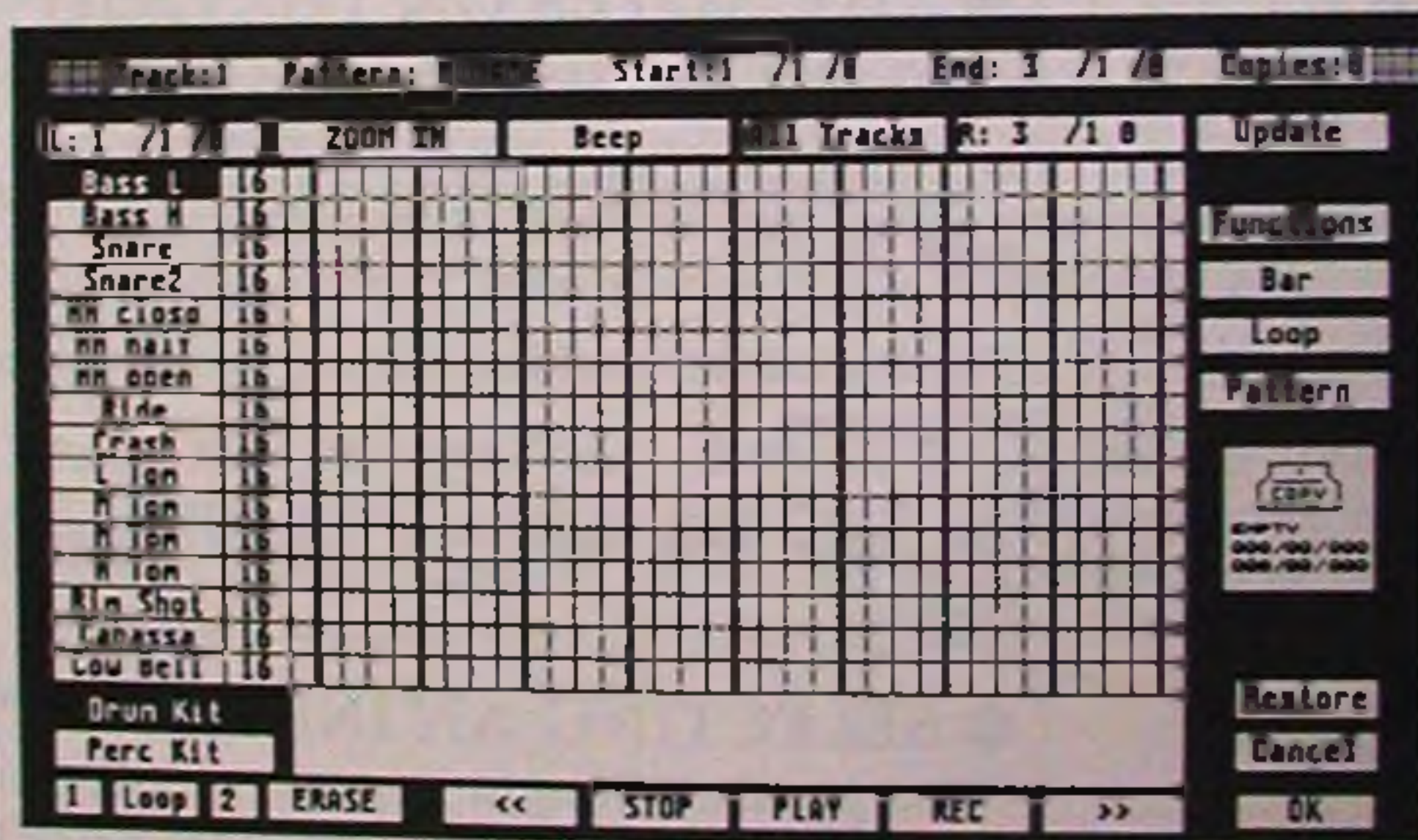
The third independent editor is Drum-Edit. This is specially designed for creating and editing drum and percussion Patterns.

In the Drum-Editor you work with a Drum Kit and a Percussion Kit. These can be thought of as maps, where every single instrument has parameters relating to which instrument is playing it, and how that is set up. You set up a map for the drum machine or sampler (or whatever) you are using. Once that is done, you don't have to worry about note numbers and MIDI-codes, you identify your instruments by names!



If the created Pattern is to play back the drum parts on different MIDI-channels the Track must be set to MIDI-channel No on the Main Screen.

To enter Drum-Edit, select it from the Pattern menu, or press [F] on the computer keyboard.



### ● THE SCREEN

Just below the menu bar is a line with some information about the music you are editing. It states which Track and which Pattern it is, and where it starts and ends. After the text Copies on this line is a figure that represents the number of copies done without Datacopy that exist for this Pattern.



Most of the screen is occupied by the grid itself. It is used to display the notes as rhombs. The whole grid represents two bars running from the left to the right. The double lines are the beats (fourth notes), and the lines in between are fractions of beats.

To the left of the grid is the list of the drums. You can actually only see half this list at a time, there are 16 more instruments that are displayed when you switch to the other Bank (see page 126).

Above the grid are a few boxes. On the left and right side you will find two position boxes telling where the grid ends and starts. These are always whole bars, and the right is always two bars later than the left (except when you are ZOOMING IN).

To the right of the grid are some special functions, and below you find duplicates of the Tape Recorder buttons of the Main Screen.

## ● THE NOTES ON THE GRID

Notes are displayed on the grid as small rhombs.

The vertical position corresponds to what instrument is playing back the note.

The horizontal position is where in the two bars displayed the note occurs.

The shade (from transparent to black) of the note represents velocity.

## ● SELECTING AN INSTRUMENT

When you are editing or steptime recording you have to select one of the instruments in the list to the left of the grid. This list is actually divided into two banks (Drum and Percussion), but only one is displayed at a time.

### SWITCHING BETWEEN BANKS

To select the bank you want displayed, click on the Drum Kit or Percussion Kit boxes below the instrument list.

Drum Kit

Perc Kit





Bass L
Bass H
Snare
Snare?

Bass L	16
Bass H	16
Snare	16
Snare?	16

## SELECTING FROM THE BANK

You can either select an instrument directly from the list or use the up and down arrows on the computer keyboard to scroll through it.

## ● SETTING QUANTIZE VALUES

Each instrument has its own Quantize value to the right of the name in the instrument list. You can set these between 1/4 and 1/64 and triplets (and to OFF) using the left and right mouse button.

## ● TO SET UP KITS

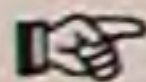
Before you do anything else you must set up the Kits so that they match the MIDI-definitions of your sounds. To do this, doubleclick on either the Drum Kit or the Percussion Kit boxes on the lower left side of the screen.

What you see is a list of definitions for 16 drum and 16 percussion sounds. You can put drum sounds in the percussion list, but if you want to distinguish between the two, the way the program is designed will help you.



### KIT 1, 2 & 3

By clicking on these buttons you can switch between three different kits that can be resident in memory at the same time.



You can have different Kits for different Tracks (not for different patterns within a Track), and Pro-24 III automatically remembers which of the three each of the twenty-four Tracks last used. This is also stored with the Song on disc.



## THE KIT COLUMNS

For each of the sounds you can set up certain parameters that determines what MIDI-data will be sent out each time a drum is played. You can also set a name for the instrument here.

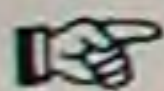
Drum Kit				
Instrument	Chan	Note		Len
Bass	10	B	1	16
Snare	10	C	0	16

### ■ INSTRUMENT

To change the instrument name, doubleclick on the existing name, press [Esc] on the computer keyboard or [Backspace] over the existing text, and type in a new name. Press [Return] on the computer keyboard.

### ■ CHANNEL

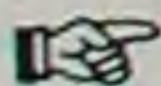
The Chan column is used to set what MIDI-channel the instrument note is sent out on. Use the left and right mouse button to de/increase the value.



If the created Pattern is to play back the drum parts on different MIDI-channels the Track must be set to MIDI-channel No on the Main Screen.

### ■ NOTE

The note number sent out for that instrument can be input in two ways. Either you just play a key on your keyboard (or whatever MIDI device you are using) or you use the left and right mouse button to de/increase the value.

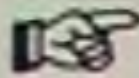


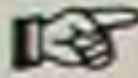
Do not use the same note number for two instruments as this will confuse screen editing.

### ■ LENGTH

Since MIDI uses a system of On and Off commands for notes you may have to set a proper length for each sound, especially if you are using sampler or synthesizer sounds. Use the left and right mouse button to de/increase the value from 1/4s to 1/64.



 If you change any of the parameters for an instrument while editing and recording, all the notes in the Pattern using this instrument follows these changes. This means that the recorded notes' values will be changed to the ones set on the Kit set up page.

 When you use this feature, do not change the Note value with the mouse, because for each value you step through, all the notes are changed to this value. Instead, set a new note number via MIDI (see page 128). Also, don't try to "remap" note numbers on an "old" drum Pattern that you a re-editing.

### **SAVE**

When you have set up a Kit you can save it to disk using standard Atari ST saving procedures.

Click on **SAVE**. The Save window opens. Enter names and decide where you want to store your Kit-map. Kits are stored with the suffix **KIT**.

### **LOAD**

You can also load Kits from disk.

Use the Kit 1, 2 and 3 boxes to set which of the three that is to be replaced with a new Kit from disk.

Click on **LOAD**. The Load window opens. Select the Kit you want to load and load it using standard Atari ST disc procedures.

### **EXIT**

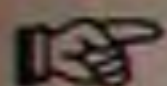
Once you are ready with all your Kit-map setups, click on **EXIT** or press [Return] on the computer keyboard.



## ● LOOP

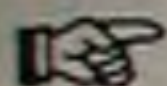
You can set up a Loop (a Part of a Pattern) and use this part only for recording and playback. You can also edit the loop only.

The loop is set to whole bars only. You set it by clicking on the figures to the left and right of the word **Loop** and by using the left and right mouse button to de/increase the values.



You cannot set the Loop to shorter values than one bar.

To activate the Loop for recording and playback, click on the word **Loop** or press [L] on the computer keyboard.



The Loop Length can be changed while recording.

## ● MOVING THE GRID TO SHOW A PART OF A PATTERN

You can make the grid show the part of the Pattern you want in a couple of ways.

1. The Fast Forward/Rewind (<< and >>) symbols are used to move the grid one bar.
2. If you press the [Spacebar] at any time while the Pattern is playing back from the Drum-Edit page, the grid is automatically moved to that position.
3. The left and right arrows on the computer keyboard perform the same function as Fast Forward/Rewind.

## ● PLAYING BACK A PATTERN

To start playback, click on the **PLAY** box or press [P] on the computer keyboard. If the Loop is active only the part within the loop is played back, otherwise the whole Pattern will be played.

If you want to jump to the position of the left side of the Grid while you are playing back, press [()] on the computer keyboard.



### ● UPDATE

When you have edited something on the grid you may have to click on **UPDATE** or press [U] on the computer keyboard to make the grid reflect the changes while recording.

### ● BEEP

Click in this box or press [B] on the computer keyboard to turn the metronome beep from the monitor (and the MIDI-click) on and off.

### ● ZOOM

If this box says **ZOOM IN** you are in normal display mode. The grid is used to display two bars.

If you click on it the text changes to **ZOOM OUT**, and the whole grid is used to display one bar only. The position boxes above the grid shows this. This mode is intended for fine detail editing.

### ● ALL TRACKS

With this parameter set to On, all Tracks and the whole Pattern is played back from the Drum-Edit page. When set to Off, only the Track you are editing is played back. Click on the box to activate/deactivate this function.

### ● REALTIME RECORDING AND ERASING

Realtime recording can be done directly from the Drum-Edit screen. You either record into the whole Pattern (**LOOP** deactivated) or just into the **LOOP** (**LOOP** activated).

Recording is similar to Cycled recording in Mixed mode. Each time you enter a new lap you can add more notes.

### RECORDING VIA MIDI

To activate recording, first click on **RECORD** and then **PLAY** or press first [P] and then [\*] on the computer keyboard.

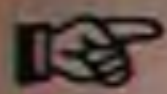
Recording is done in true realtime, and any quantizing has to be done afterwards.



To **deactivate** recording click on **RECORD** or press [\*] on the computer keyboard. The music keeps playing back, and you can enter recording again at any time.

To **stop** , click on **STOP** or press [0] on the computer keyboard.

## **RECORDING FROM THE COMPUTER KEYBOARD**



To use this function, **MIDI THRU** must be activated (see page 166).

To activate recording, first click on **PLAY** and then **RECORD** or press first [\*] and then [P] on the computer keyboard.

Select the instrument from the instrument list that you want to play from the computer keyboard.

Play the instrument using the [Tab] , [4] or [+] keys on the computer keyboard.

Everything else is as when recording via MIDI.

You can select different instruments from the list without stopping or deactivating recording.

## **REALTIME ERASING**

To erase notes in realtime, click on **ERASE** or press [-] on the computer keyboard while recording or playing back.

Press and hold the keys on your keyboard that plays the drum-sounds you want to erase. Erasing continues as long as the keys are held down.

To deactivate erasing click on **ERASE**. The music keeps playing back, and you can enter erase mode again at any time.

To deactivate erasing and activate recording, click on **RECORD** or press [\*] on the computer keyboard.

To stop, click on **STOP** or press [0] on the computer keyboard.



## ● STEPTIME INPUT

Notes can be entered, and deleted from the grid using the mouse while recording, while playing back or when the music is stopped.

### INPUTTING NOTES

Select the quantize value for the instrument.

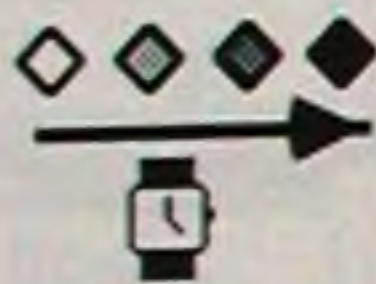
Move the grid so that it displays the bar where you want to insert the note.



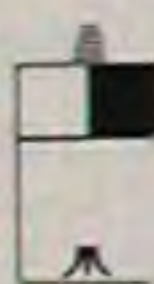
Move the pointer into the grid. It turns into a "drumstick".



Use the left mouse button to click somewhere in the grid. The note is automatically "snapped" to the closest Quantize value.



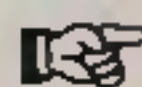
The velocity of the note is determined by *how long* you hold the left mouse button before releasing the note.



### DELETING NOTES

Using the same techniques as when inputting notes, click on the notes you want to delete using the right mouse button.

## ● CHANGING VELOCITIES



You may have to click on UPDATE or press [U] on the computer keyboard to redraw the screen before using this function.

Below the grid is a black bar graph representing velocity for each note input for the selected instrument.



You can change the value directly by clicking and holding the mouse button over one of the bargraphs. Change the values by dragging the mouse vertically.



Bass L  
 Bass H  
 Snare  
 Snare2  
 HH closd

## ● COPYING AND USING THE BUFFER

You can copy one instrument to another at the same or a new position. This can be done in a few different ways:

### DOUBLING A PART

If you want to copy something played by an instrument to another instrument over the whole Pattern, just Drag this instruments name and release it on top of another instrument name. The pointer changes to a copy symbol while you are dragging.

### USING THE BUFFER

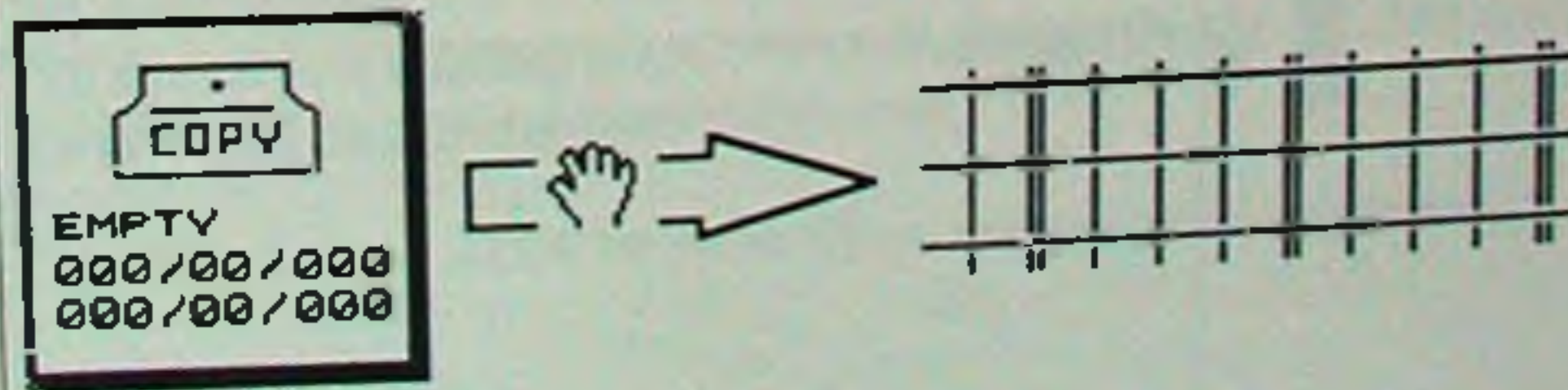
You can copy something played by an instrument either from the first bar on the screen, from the loop or from the whole Pattern to the buffer. The buffer can then be copied to another part of the Pattern, to the same or another instrument.

Select the instrument that you want to copy.

- ◆ To copy the first bar on the screen, select To Buffer from the Bar menu or press [C] on the computer keyboard.
- ◆ To copy what is within the loop, select To Buffer from the Loop menu or hold the left [Shift] key, and press [C] on the computer keyboard.
- ◆ To copy the whole Pattern on the screen, select To Buffer from the Pattern menu or hold the right [Shift] key, and press [C] on the computer keyboard.

To copy the contents of the buffer to another part of that Pattern you must first move the grid to that Part of the Pattern.

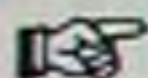
Drag the buffer box (the one with the COPY symbol) to the position on the grid where you want it *added*.



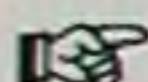


The vertical position of the tip of the arrow in the copy symbol corresponds to *what* instrument you will copy the buffer to.

The horizontal position of the tip of the arrow in the copy symbol corresponds to *where* in the two bars the beginning of the buffer contents will be added.



The beginning of the buffer contents will snap to the closest Quantization value.



The buffer is not a clipboard. It doesn't really contain any notes, only a start and end bar, a kind of range. This means that you can't use the buffer to copy from one Pattern, or Track, to another.

## Functions

Qunt. Rec

New

No Doubl.

Qunt. Rec.

Del. Rec.

## ● THE FUNCTIONS MENU

You perform all these commands by just selecting them from the Functions menu.

### ■ QUANTIZE ALL

If you select **Quant. all** from the Functions menu, all instruments in the whole Pattern will be quantized to the Quantize value of the active instrument.

### ■ NEW

This menu item clears the whole Pattern, stops Playback and deactivates the Loop.

### ■ NO DOUBLES

This function sees to it that no double notes exist within the Pattern.

Double notes are notes played by the same instrument at the same position. They might occur when you step input two notes at the same position or when you Quantize. Double notes may lead to "flanging" sounds or a synth suddenly seeming to be reduced in polyphony.

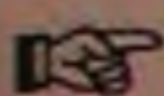
### ■ QUANTIZE RECORDING

This function quantizes your last *realtime recording*, to each instrument's Quantize value.



This Quantization can be undone, just by setting another Quantize value (even OFF) and selecting Qunt. Rec. again.

#### ■ DELETE RECORDING



This function deletes your last *realtime recording*.

### ● THE BAR, LOOP AND PATTERN MENUS

These three menus are almost identical. Their functions are similar, the only differences are that:

Functions on the Bar menu only affects the first bar in the displayed grid.

Functions on the Loop menu only affects music inside the loop.

Functions on the Pattern menu affects the whole Pattern.

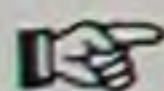
The computer keyboard equivalents of these functions are described after the description of all commands (page 137).

#### ■ ERASE

This function erases the selected instrument.

#### ■ QUANTIZE

This function quantizes the selected instrument to its Quantize value.



This Quantization can be undone, just by setting another Quantize value (even OFF) and selecting Quantize again.

#### ■ ITERATIVE QUANTIZE

This kind of quantize moves the notes for the selected instrument in steps towards the closest Quantize value. To achieve perfect quantization you may therefore have to select Iterative Quantize several times.

*One application for this would be to move notes a little bit towards a triplet value, thereby achieving a kind of shuffle feel.*





■ **TO BUFFER**

Moves the selected instrument to the buffer as described on page 134.

■ **REPEAT (BAR AND LOOP ONLY)**

This function fills the Pattern with a part (the first bar or the Loop) of the instrument selected. It is not filled from the actual beginning but rather from the current bar or Loop start.

■ **REPEAT ALL (BAR AND LOOP ONLY)**

This function fills the whole Pattern with a part (the first bar or the Loop) of all instruments. It is not filled from the actual beginning but rather from the current bar or Loop start.

## **KEYBOARD FUNCTIONS**

The items on the menus described above can be accessed using the following scheme.

Just pressing the relevant key on the computer keyboard is the same as selecting the item from the **Bar** menu.

Holding the left [Shift] key while pressing the key on the computer keyboard is the same as selecting the item from the **Loop** menu.

Holding the right [Shift] key while pressing the key on the computer keyboard is the same as selecting the item from the **Pattern** menu.

- [E] This is the computer keyboard equivalent of **Erase**.
- [Q] This is the computer keyboard equivalent of **Quantize**.
- [C] This is the computer keyboard equivalent of **To Buffer**.
- [I] This is the computer keyboard equivalent of **Iterative Quantize**.



**Restore**

● **RESTORE**

If you click on **RESTORE** or press [R] on the computer keyboard the whole Pattern is reverted to the way it was before you entered Drum-Edit.

**Cancel**

● **CANCEL**

If you click on **CANCEL** or press [Undo] on the computer keyboard you exit Drum-Edit and cancel all changes made.

**OK**

● **OK**

If you click on **OK** or press [Return] on the computer keyboard you make all changes permanent and exit Drum-Edit.



## THE TRACK MENU

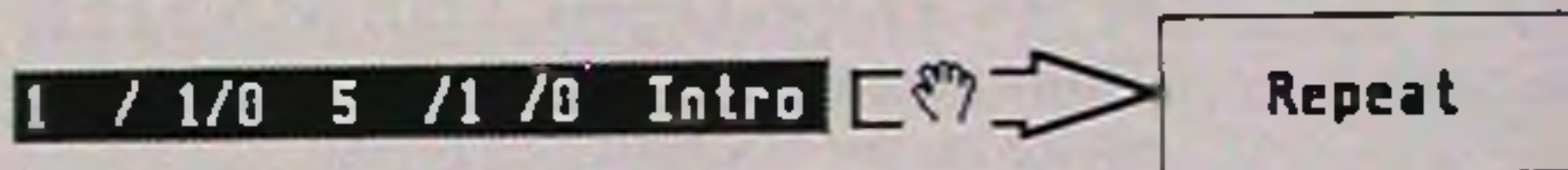
This contains items all relating to Track specific operations.

### LIST

If you select List from The Track menu you are presented with a list of all the Patterns on the selected Track. If there are more Patterns than there is room for, you can scroll up or down using the scroll-bars on the right side of the window.

For each Pattern, the Start and End Positions and its name are displayed. You may make a hard copy of the Track List by pressing the button PRINT TRACK.

You may also drag any Pattern into one of the five boxes on the right side of this box:



#### DELETE

Deletes a Pattern as described on page 67.

#### GRID EDIT

Transfers you to Grid Edit with this Pattern selected as described on page 78.

#### NOTE EDIT

Transfers you to Note Edit with this Pattern selected as described on page 96.

#### REPEAT

Repeats the Pattern as described on page 73.

#### EXTEND

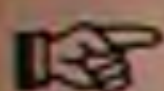
Extends the Pattern as described on Page 71.

When you are finished with the Track List, click on EXIT or press [Return] on the computer keyboard.

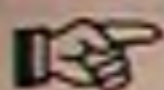


## MASTER TRACK

The Master Track is a special twentyfifth Track only holding time signatures and tempi. You can use this to set up as many changes as you like during a Song. Tempo changes can also be recorded while the music is playing (see Tempo Recording, page 142).



If you want the Locators and the Tape Position box to reflect the time signature, you have to set the Time Signature on the Master Track, not on the Main Screen. Time signatures set on the Main Screen only affect the Metronome and the count in.



If you change the time signature sometime during the recording, all the affected Patterns' start and end Points, and all (preprogrammed) Locator Positions will be displayed in the new meter.

### ● ACTIVATING THE MASTER TRACK

This function selects if the music should play with the changes set up on the Master Track or not.

To activate and deactivate the Master Track, either click on the Button Master:ON/OFF on the Main Screen, or press [T] on the computer keyboard.

Master: OFF

### ● EDITING THE MASTER TRACK

Select Master Tack from the Tracks menu. There is a window on the left side of the screen, with a list of all the changes. If there are more changes than can be displayed in the window at one time, you can scroll using the scroll bars on the right side of the window.

The columns in the window are: POSITION, MODE, VAL1 and VAL2.

POSITION	MODE	VAL 1	VAL 2
1 /1 /0	Tempo	100	
1 /1 /0	Time	4	4



## POSITION

A new entry in the Master Track is of course always inserted at some place in the music. This is the POSITION, and once an event is there, it cannot be moved to another position.

## MODE

There are two types of events on the Master Track, Time Signature changes (Time) and Tempo Changes (Tempo). This column displays which kind of event you are looking at.

## VAL1 AND VAL2

For a Tempo event only VAL1 is displayed, and this is the Tempo in Beats Per Minute.

For a Time event, VAL1 is the nominator and VAL2 the denominator. If VAL1 is set to 3 and VAL2 to 4 this means 3/4 time.

If you want to adjust the values of one of the events, just click on it, and it turns negative. The VAL1 and VAL2 values can be adjusted using the left and right mouse buttons, with the mouse pointer pointing at the number.

On the right side of the box, there are a number of buttons and a value box. These are used for editing (inserting and deleting new events) into the Master Track.

## INSERTING A NEW EVENT

**START:** \_\_\_\_\_

Click once on the text **START:**. Type in the Position where you want the new event to be inserted. The same "shorthand" can be used as when typing in Locator numbers.

Click in the **MODE:** box (TEMPO or TIME) that corresponds to the type of event you want to insert. Once you have clicked in one of these boxes it turns negative (white text on black). If the desired box is already negative, you don't have to click in it again.

**MODE:** **TEMPO** **TIME**



## **INSERT**

Click **INSERT**. The new event will be inserted into the list. You can then use **VAL1** and **VAL2** to set it to the desired values.

### **DELETING ONE EVENT**

Select the event you want to delete by clicking on it, and then once in the box **DELETE**.

**1 /1 /0 Tempo 100** + **DELETE**

### **DELETING ALL EVENTS OF ONE KIND**

You can delete all Time events or all Tempo events at the same time.

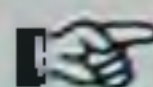
First click on **TEMPO** or **TIME** (as when inserting events) to select the type to be deleted. Then click once in the box **MODE-DELETE**.

**MODE: TEMPO** **TIME** + **MODE-DELETE**

When you are finished with Master Track editing, click once on **EXIT**, or press [Return] on the computer keyboard.

## **TEMPO RECORDING**

Rather than entering a list of numbers for tempo changes, you may like to enter them as the music plays. This is done with Tempo Recording.

 Tempo recording starts from the current position in the Song, not necessarily the beginning.

Position yourself on the Position in the Song where you want to start Tempo Recording.

Select Tempo Recording from the Track menu. A dialog box shows up giving you three buttons with the options to:



**START** Tempo Recording. The music plays back and you can enter new tempi.

**STOP** Tempo Recording. The music stops and the changes are inserted in the Master Track.

**CANCEL**. The whole recording is cancelled, and none of the changes are inserted in the Master Track.

Once you have clicked **START**, the music is playing and the program is waiting for you to input a tempo change. This is done by clicking or dragging on the Data Fader on the right hand of the screen.

*Try just clicking on the Data Fader arrows to insert tempo changes without actually worrying about the tempo value. The value can easily be changed on the Master Track page later.*

*The modulation wheel can be used in combination with the Remote Key (see page 169) to input values. This can be very useful for Tempo recording.*

## MASTER TRACK COPY

You can also copy a portion of the Master Track to a new Position.

Set the Left and Right Locator so that they enclose the part of the Master Track that is to be copied.

Click once in the **DEST:** box and enter the position that you want the copy to start on.

Select **Master-Track-Copy** from the Track menu, and the copying is performed.



## ERASING TRACKS

- ◆ If you want to erase one Track completely, select it as the active Track, and drag the text **Track:** into the VU-box.
- ◆ If you want to erase several Tracks at the same time, select **Erase Track** from the Track menu.

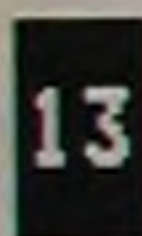
You are presented with a box containing on/off buttons for each Track.



If the number of a Track is grey, this means that nothing is recorded on it (it doesn't make much sense erasing it then, does it?).



If the number of a Track is black, this Track is recorded and can be selected for erasing.

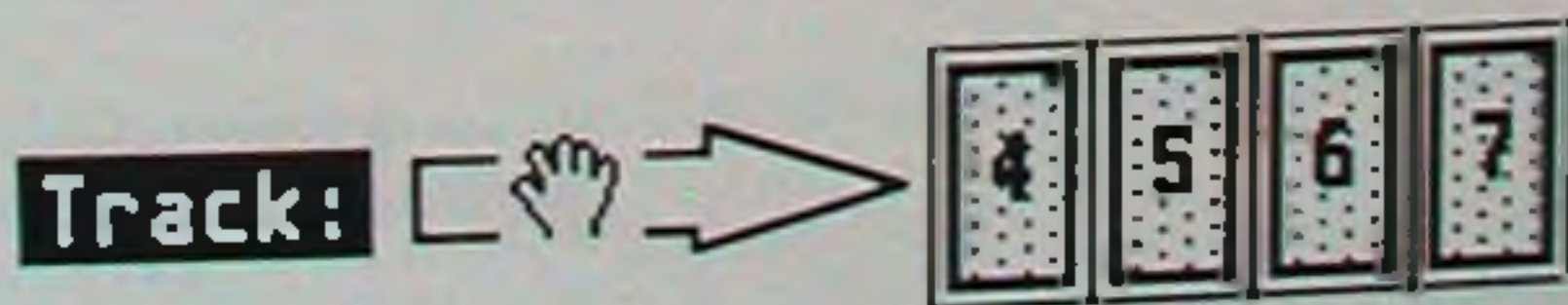


If you click once on a Track it turns negative and is thereby selected for erasing. Click on as many Tracks as you want to erase. Clicking on a Track again deselects it.

When all the Tracks are setup, click once in the OK box, and the selected Tracks are erased.

## COPYING TRACKS

- ◆ If you want to copy one Track to another, select the Track you want to copy as the active Track. Then drag the text **Track:** up onto one of the Track select boxes at the top of the screen. If this means that music already existing on this Track will be erased, an "OVERLAP!" dialog box will tell you so, and the copying will not be performed.

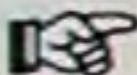




◆ If you want to copy a part of the "tape" (several Tracks), from one position to another, you should use **Multi Copy** or **Free Copy**. If you need to make room for your copy (say you want to insert an extra verse before the chorus) use **Global Insert** (page 147) to insert a piece of "blank tape", before you do the copy.

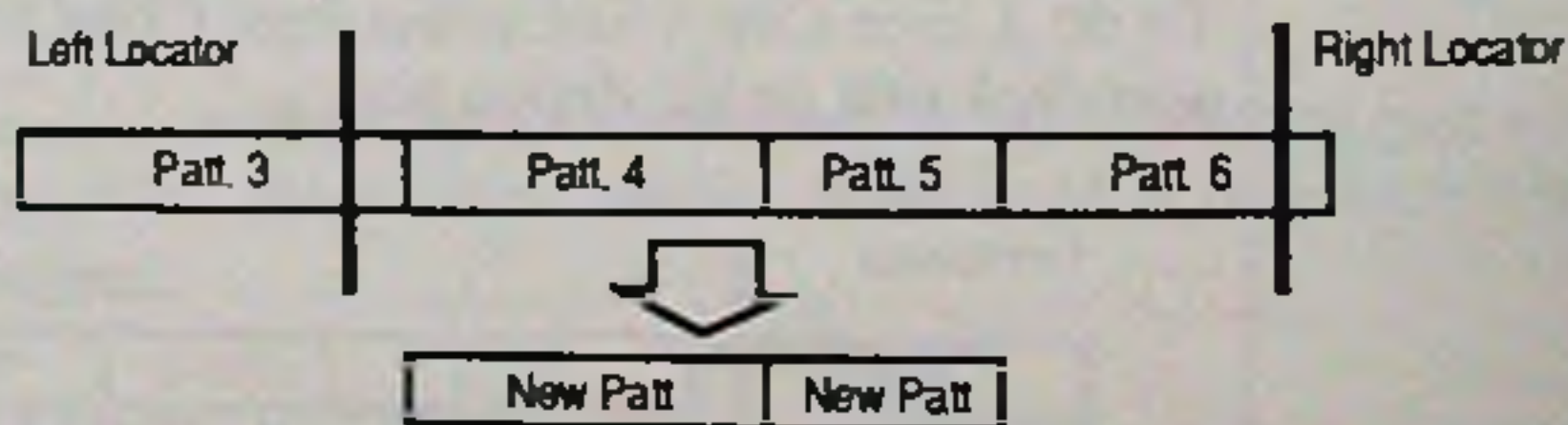
Both methods take music that lies within the Left and Right Locator Positions and copies it to a new place, with the copy starting at the Position setup in the DEST: box. This means that if the Left Locator is set to 3/1/0, the right to 5/1/0 and DEST: to 25/1/0, you will get a copy of the music between bar 3 and 5, beginning at bar 25 and ending at bar 27.

So, set up the Left and Right Locator and the DEST: box as required.

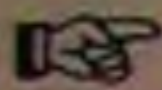
 If you want to exclude one or more Tracks from this procedure, mute the ones you don't wish to be copied.

## MULTI COPY

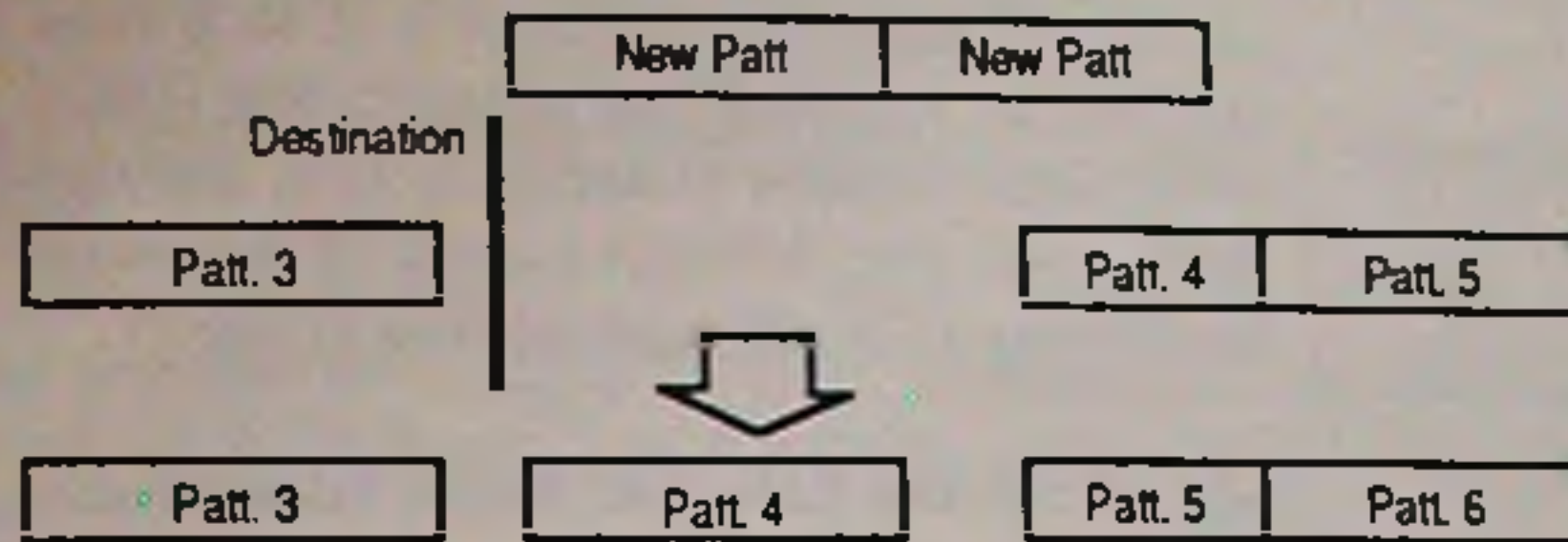
Using Multi Copy, only complete Patterns that lie between the Left and Right Locator will be copied for each Track. The copy consists of the same number of Patterns, all having the same length as the originals.







Overlapping is not allowed for a Multi Copy. This means that the destination Track must not contain any Patterns at the Positions of the Patterns on the original Track. Another way to explain this is to say that no overwriting is done with Multi Copy. If the "OVERLAP!" dialog box shows up, this means that at least one Pattern was not copied.

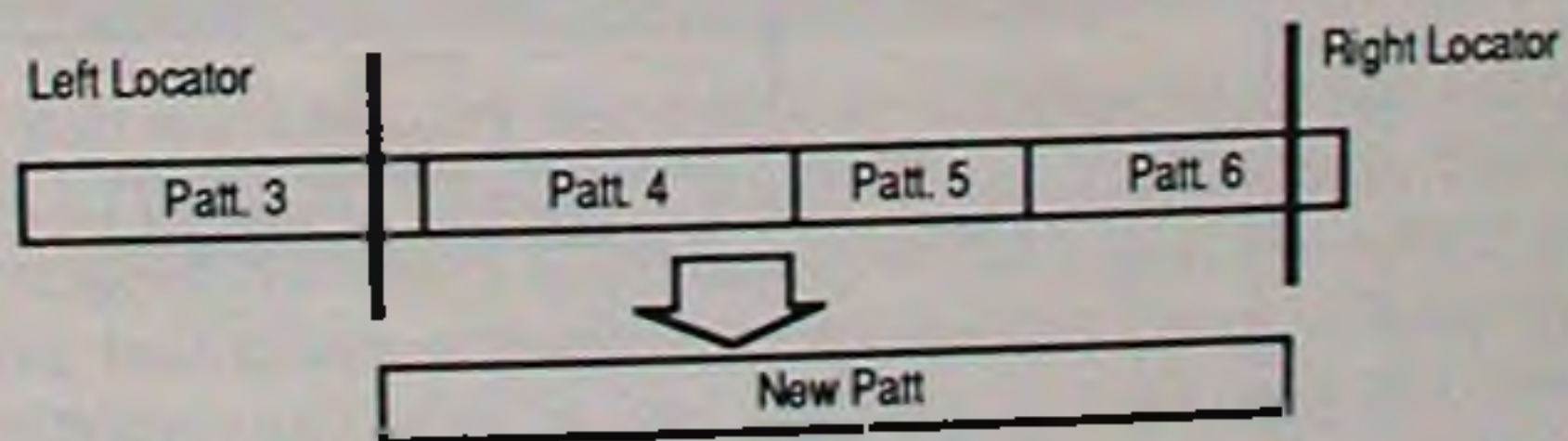


To do a Multi Copy, just select **Multi Copy** from the **Track** menu, and click **OK** in the dialog box.

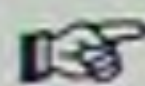
### FREE COPY

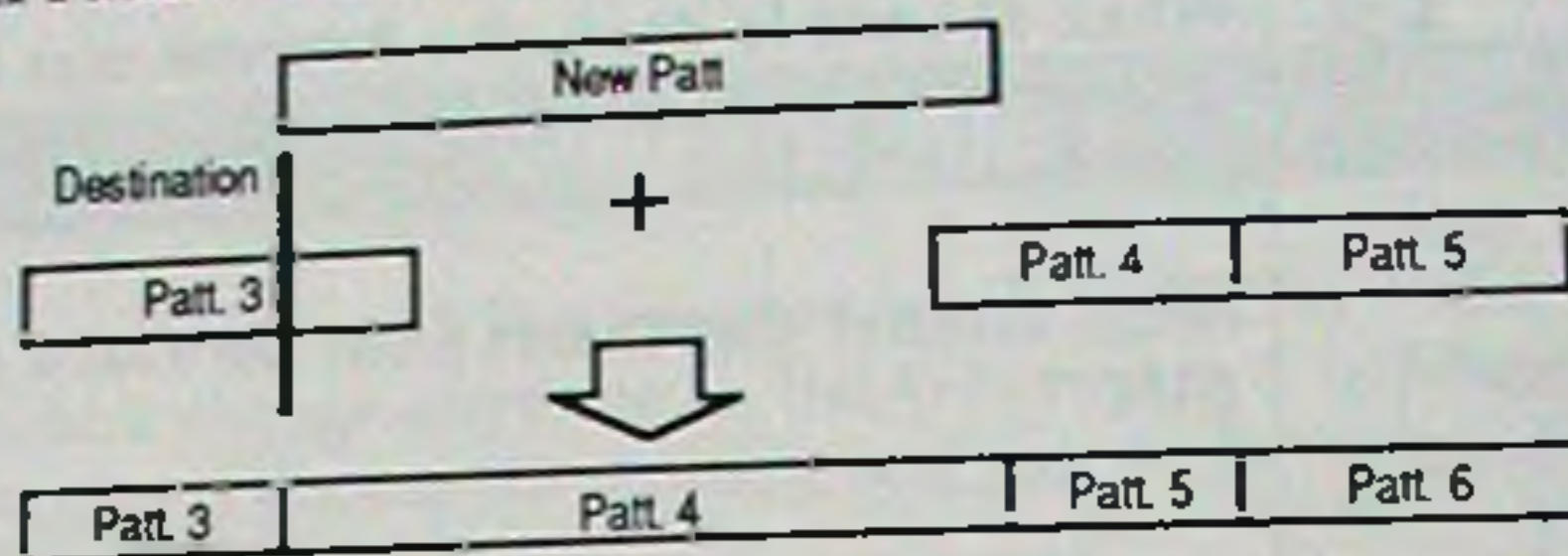
Using **Free Copy**, all music between the **Left** and the **Right** Locators will be copied, regardless of how many Patterns there are, and where they begin and end. The resulting copy is one Pattern per Track containing all the music copied.

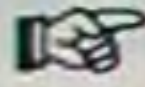
To do a **Free Copy**, just select **Free Copy** from the **Track** menu, and click **OK** in the dialog box.





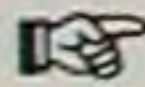
 If this copy overlaps existing music, a dialog box will tell you so. If you complete the copying anyway, the copy will overwrite the existing music (everything on the original Track will be copied). Patterns may also become joined as when recording over Pattern borders. (see page 39).



 Multi Copy and Free Copy are always Datacopies.

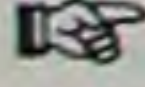
## GLOBAL CUT/INSERT

If you need a piece of "blank tape" inserted on all Tracks somewhere in the music, use Global Insert. You can then copy (using Free Copy or Multi Copy) music to this "piece of blank tape". Or, if you want to cut out a piece of the "tape" on all Tracks, use global Cut.

 You can use both these functions for all Tracks or just some of them. Mute the Tracks that you don't want to be affected by any changes.

### GLOBAL INSERT

To insert a piece of "blank tape" somewhere, set the Left Locator where you want the insert to start, and the Right Locator where you want it to end.

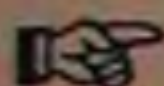
 When the insert is done, the Patterns that fall within this area will be automatically extended, and the ones following will be moved as necessary.

Select Global Cut/Insert from the Track menu. Click once on INSERT.



## GLOBAL CUT

To cut out a piece of "tape" somewhere, set up the Left Locator to where you want the cut to start, and the Right Locator to where you want it to end.



When the cut is done, the Patterns that fall within this area will be shortened, and the ones following will be moved as necessary.

Select **Global Cut/Insert** from the **Track** menu. Click once on **CUT**.

## GLOBAL TRANSPOSE

If you want to Transpose several Patterns on several Tracks at the same time, this function is more effective than the Playback Transpose (page 50). It also features a velocity increase/decrease function.

The Global Transpose function only affects the music between the Left and Right Locator, and only Tracks that are not muted.

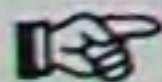
Select **Global Transpose** from the **Track** menu. Use the left and right mouse buttons to set the **Velocity** and **Transpose** values as you wish.

### VELOCITY

The value that you set is *added* to all existing velocity values.

### TRANSPOSE

The value set is added to all existing note values, thereby transposing the music. Each step is a semi-tone.



Tracks running in **SEQ** mode (page 151) are not affected by **Global Transpose**, and this function should not be used with non **Dat**acopy patterns.

When the values are set, click once on the **OK** button.



## PRINT

This function outputs a List of all twenty-four Tracks to a connected printer.

## WHERE AM I

Yes, where are you? This function is only a display of the music, you can't change anything in the Where Am I window. Your viewpoint is the current position, and you are looking out on the different Tracks.

Select **Where Am I** from the Track menu.

At the top center of the box is the current position.

Below this are the twenty-four Tracks in two columns of twelve each. The leftmost number of each column is the Track number.

For each of the Tracks you can find information about what Pattern is playing at the current Position (if any at all), where it begins and where it ends.

We will now examine one of these Track boxes more closely.

- ◆ If there is nothing on the Track at all you will only see > - END -. This is also the case if you are already past all music on that Track.
- ◆ If the Position you are at is before the first Pattern on the Track you will find > XXX|YYY at the right side of the box, where XXX is the number of the Bar and YYY the number of clockpulses at which the first Pattern begins. For example, if the first Pattern begins at 3/3/0 this translates to > 3 |192.
- ◆ If the current position is in the middle of a Pattern, the left side of the box will show > XXX|YYY with the XXX and YYY representing the bar and clockpulse where the Pattern begins. After this comes the name of the Pattern and its end



point coded just as the beginning.

- ◆ If there is no Pattern after this one the end point is not displayed. Instead it says > - END - where the end point should have been.

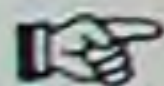
## ARRANGE SONG

Normally you would use the different Copy, Cut, Insert and Delete commands to arrange the music on the "tape" into a Song. But if you are used to the way drum machines and traditional sequencers build up an arrangement as a string of "Patterns" of identical length, you may want to use Arrange Song.

Arrange Song is only a Playback function, it doesn't rearrange your Patterns permanently.

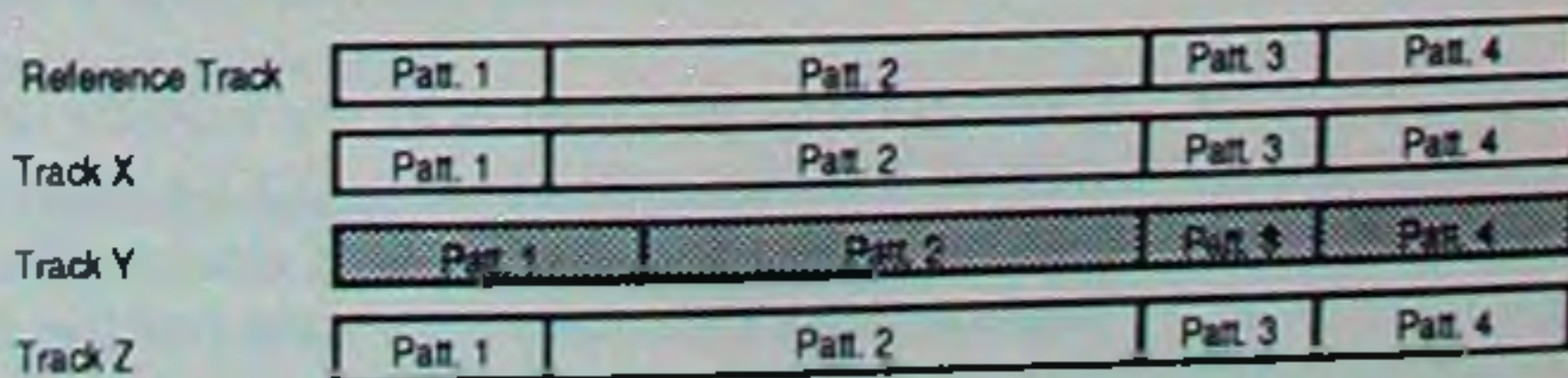
This feature involves a few major steps. You must make up an Arrangement, a list of Patterns that shows how you want your Song played back. You must also switch the Tracks that you want to follow this list to SEQ mode. Finally, to play back a Song arrangement you must switch the program from TAPE mode to SEQ mode.

The arrangement follows one of the Tracks. This is called the Reference Track. Any Track can be chosen as the Reference Track. But this is the catch:



All Patterns that are to follow the Song Arrangement have to have their Start and End points at exactly the same positions as the Patterns on the Reference Track.

This means that all Patterns that are to be used in a Song arrangement have to have perfectly aligned start and end points, just like Patterns on traditional sequencers.

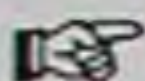




MODE: TAPE

## ● TAPE AND SEQ MODE

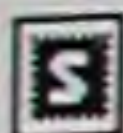
To switch the program back and forth between TAPE and SEQ mode, click once on the MODE: button, or press [X] on the computer keyboard.



You cannot activate recording in SEQ mode.

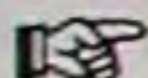
## ● SETTING TRACKS TO SEQ MODE

Each Track that you want to play back following the Song Arrangement list has to be put in SEQ mode. This is done by double clicking on the Mute/Status button of the Track. This can only be done if the Track is set to ON. This means that only an unmuted Track can be set to SEQ mode.

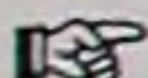


Double click again to exit SEQ mode.

Once in SEQ mode, the Track can be muted and unmuted as usual, with single clicks on the Mute/Status button, or using Group Mutings (page 52).



You can't record on a Track set to SEQ mode.



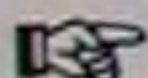
Tracks set to SEQ mode will follow the Song arrangement. Tracks in normal ON mode will play normally.

*This is definitely a useful feature, as you may run some Tracks in normal ON mode, and some in SEQ mode.*

## ● ARRANGING A SONG

Make sure you have switched the program to SEQ mode before you enter Arrange Song (this is actually not a must, but it makes things a lot clearer since it allows you to see which Tracks will run in SEQ mode and which that won't).

Select Arrange Song from the Track menu. A large window appears. This has quite a few different Parts, which will be explained below.



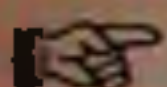
If you haven't given all your Patterns descriptive names, you will be totally lost in this window, so name all your Patterns!



**Track:**

## REFERENCE TRACK NUMBER AND THE "NEW TRACK" BOX

The Track: box in the left upper corner is used to select the Reference Track. Use [Esc] or [Backspace] (on the computer keyboard) to clear this box and enter a new Track number (if so desired).



Do not press [Return], as this is the same as Exiting this window.

**New Track**

When you have chosen, and typed in the right Track number, click once on the button New Track. A dialog box will inform you that this operation will clear the current Arrangement (just the Arrangement, not the Patterns that are part of it). If you click OK, the window is redrawn with the new Track as Reference Track (it disappears and comes back again).

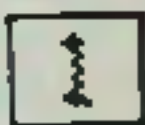
## REFERENCE TRACK PATTERN LIST

There are three almost identical columns on this screen. The left of these is a list of the Patterns on the Reference Track. If there are more Patterns than there is room for, this list can be scrolled using the arrow icons at the top and bottom.

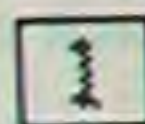
You can find out which Tracks have Patterns with start and end points matching those of the Pattern on the Reference Track. This is vital, because if they don't match, the Pattern will not be played back in the Arrangement.

**Intro**

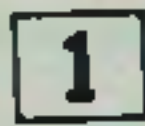
This is done by clicking and holding the mouse button over the Pattern you are interested in. There is square with small numbered (1 to 24) boxes on the right side of the screen. Each box represents a Track. This can be read out as follows.



◆ If the program is set to TAPE mode, all Tracks are displayed in grey.



◆ An empty Track, a Track with empty Patterns, or a Track not set to SEQ mode, is always displayed in grey, whether you are clicking on a Pattern or not.



◆ A Track with music on it, set to SEQ mode, has a black numeral before you click on it.



- ◆ **1** When you click and hold the mouse button on a Pattern in the Reference Track, a Track number with a black numeral turns negative if the start and end point of the Pattern on this Track matches the Pattern on the Reference Track (the one you clicked on). This means that this Pattern will play according to the Arrangement list without problems.
- ◆ **1** If you click on a Pattern in the Reference Track, and one of the Track numbers stay black, this means that its start and end point does not match the Pattern on the Reference Track (the one you clicked on). This Pattern will not play in the arrangement.

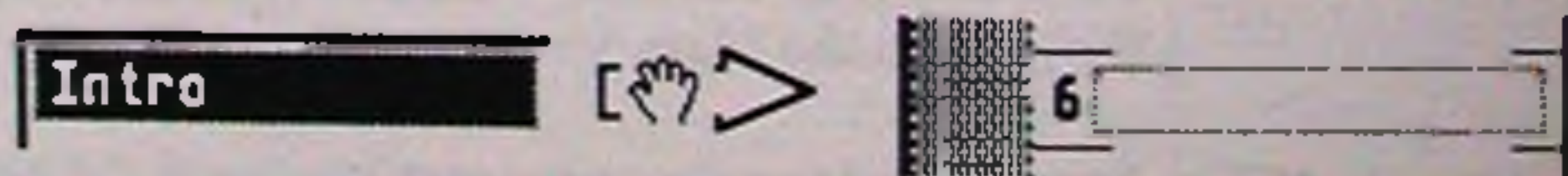
## ARRANGEMENT LIST

The remaining two columns are the Arrangement list (it is only one list, but it takes up two columns). This is a list of Patterns from the Reference Track. There can be 64 entries in this list, but only 34 are displayed at one time. If the arrangement is longer than there is room for, this list can be scrolled using the arrow icons at the top and bottom of the right of these boxes.

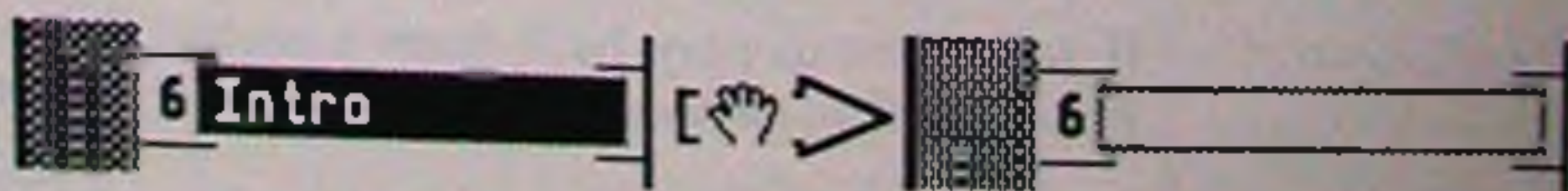
You enter Patterns in to the Arrangement list by dragging them from the Reference Track Pattern List, or from another part of the Arrangement list, as explained below.

### ■ ENTERING A PATTERN INTO THE LIST

Drag the Pattern from the Reference Track, and put it on any position in the Arrangement list.



Alternatively, drag a Pattern already in the list to a new Position. This does not move the Pattern, it copies it.

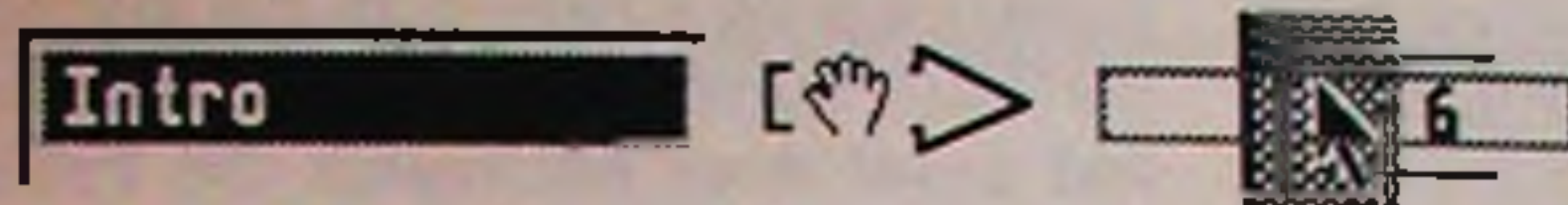


If you drag a new Pattern and release it over an already existing, the new Pattern will replace the existing.



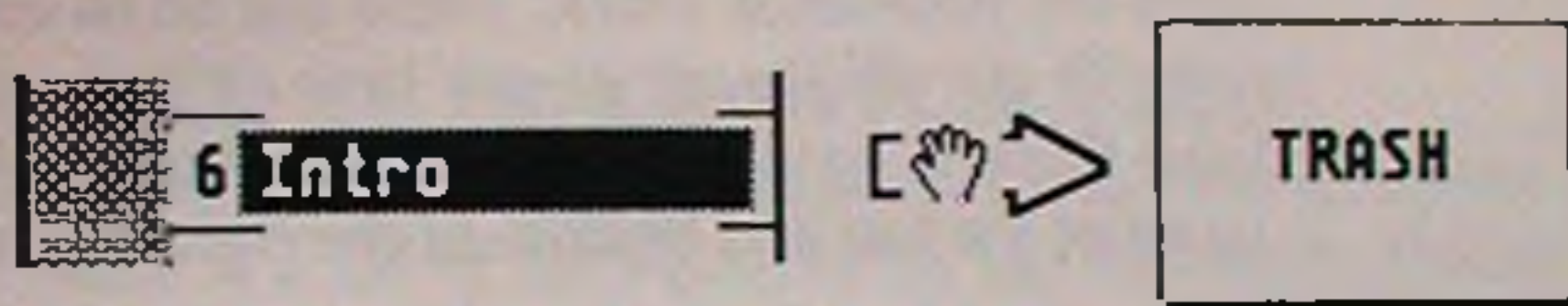
### ■ INSERTING A PATTERN INTO THE LIST

If you want to insert a Pattern, drag it to the position where you want it, but release the mouse button with the pointer on the narrow grey column on the side of the Arrangement list. The Patterns positioned after the one inserted will be moved down one step.



### ■ DELETING A PATTERN FROM THE LIST

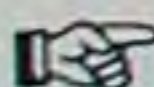
Drag the Pattern and release it over the box that has the word TRASH on it. This deletes the Pattern from the list only, it doesn't delete the actual Pattern.



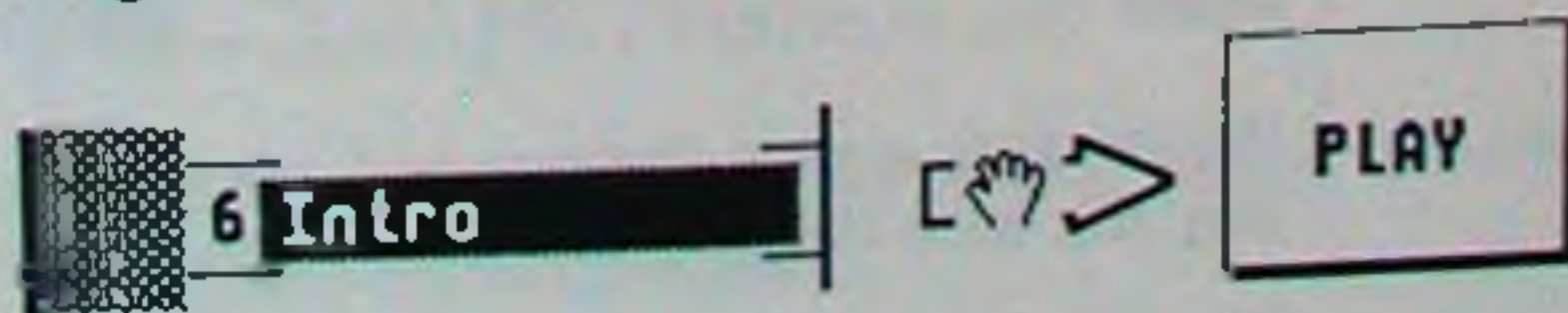
When you click on a Pattern in the Arrangement list, its start position will be shown at the bottom of the screen, in the white box, beginning with the text **Position:**.

### TO PLAY BACK AN ARRANGEMENT

An arrangement can be played back from the Arrange Song window. The four buttons, <<, STOP, PLAY, and >> behave just as they do on the Main Screen.

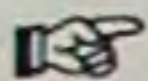
 You can not use the computer keyboard for playback and transport controls while you are in the Arrange Song window. Make sure Cycle isn't activated when you play back your arrangement, as this function will override the arrangement.

If you want to play back from a certain Pattern in the Arrange list, drag this Pattern and release it over the PLAY button.





Three black boxes on the bottom of the screen show three things: which entry in the list that is currently playing, the "tape" position in Bars, and the "tape" position in hours/minutes and seconds.



The arrangement can of course also be played back from the Main Screen.

When you are finished with the Song Arrangement window, press OK to exit, or CANCEL to exit and cancel all changes.

*If you plan a song to be setup as a song arrangement, start by programming some Left and Right Locator Positions that can be recalled with the function buttons [F1] to [F10] (see page 37). This will make it easy to set up Patterns on all Tracks with identical lengths (using Create on the Pattern menu if you wish).*

*An arrangement always plays back from position 1/1/0. If you need to have a predelay you have to start the whole Arrangement with some empty bars.*



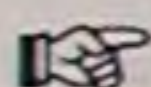




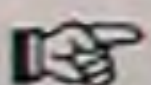
## THE FILE MENU, SAVING AND LOADING

The Save and Load commands are used for saving things permanently to disk. There is no automatic saving whatsoever in Pro-24 III. It is up to you to see to that all important information is saved.

Program crashes have always happened on 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!

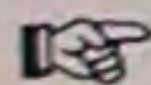


All saving and loading operations follow the standard Atari ST procedures. You can enter and exit folders, switch to new volumes and so on. If you feel uncertain about these operations, consult your ST Operation Manual.



### SAVE SONG

To save a whole Song, complete with its MIDI-definitions, Locator Positions, Mute Groups, Master Track and everything, select SAVE SONG from the file menu. Use standard Atari ST procedures to enter a name and decide where you want to store it.



Songs are given the suffix SNG so that they can be identified by you and the program as Songs.

#### DEF.SNG

There is one very special Song called DEF.SNG This is the Song that is automatically loaded when you start the program. Normally this would not contain any music (but it can). Instead the DEF.SNG should have all the settings that you would like the program to have just after power up. What follows is a list of everything that is included in the DEF.SNG.



- ◆ Everything on the MIDI-Definition page.
- ◆ Everything on the Mode Setting page.
- ◆ Everything on the Drum Kit page (double click on Kit).
- ◆ The Key's, Clefs, Split-point, Rest Quantize and Note Quantize for each Track in Score-Edit.
- ◆ Everything that can be set for the SMP-24 and Time Lock.
- ◆ The Text-Input.
- ◆ The last Tempo, Locator positions, Mutings and MIDI-Channels on the Main Screen.

Set up a Song with all the parameters above as you want them, and save it as DEF.SNG.

## LOAD SONG

This loads a complete Song with all the settings as described above under the heading Save Song. Use standard Atari ST procedures to select the Song to be loaded. The DEF.SNG can be loaded at any time, just like any other song.

## SAVE PATTERN

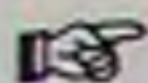
You can save several Patterns from several Tracks at one time. The first Pattern saved on each Track is the first one after the Position of the Left Locator. If this is followed directly by other patterns (without gaps in between) these will also be saved. The last Pattern saved is either the first that is followed by a gap, or the last one within the range of the Left and Right Locators.

Several adjacent Patterns stored together are transformed into one Pattern, and therefore also loaded as one Pattern.

You can also deselect Tracks by muting them (Status off, see page 52). Patterns on muted Tracks will not be saved.

Use standard Atari ST procedures to enter a name and to specify where you want to store the Pattern(s).





Pattern files are given the suffix PAT so that they can be identified by you and the program as Patterns.

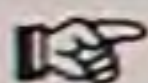
*Use a descriptive file name that tells how many Patterns are in the file, and how long they are.*

## LOAD PATTERN

A Pattern is loaded on to the Track selected for recording. Its start point within the Track is set with the Left Locator. If there are more than one Pattern in the file, the following Patterns will be loaded in to the consecutive Tracks. For example, if you have a file with three Patterns, and Track 4 is selected for recording, the Patterns will be loaded into Track 4, 5 and 6. All Patterns are given the same start point.

Several adjacent Patterns stored together are transformed into one Pattern, and therefore also loaded as one Pattern.

Use standard Atari ST procedures to select the Pattern to be loaded.



Loading a Pattern into a Position where anything is already recorded overwrites the original.

## IMPORT MIDI FILE

You can import files saved in the MIDI standard file format. Pro-24 III reads files in the "0" format (one Track only), and the "1" format, (several Tracks). MIDI files are loaded as if they were Patterns, and Time Signature and Tempo information is ignored completely.

Files in format "2" may be loaded (these are files organized as Patterns on a drummachine).

Use standard Atari ST procedures to select the File to be loaded.



## EXPORT MIDI FILE

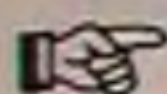
You can save files to disk in the standard MIDI file format.

Mute the Tracks you don't wish to save.

If one Track only is active, the result is a type "0" file, and if several Tracks are active the result is a type "1" file. The first Track is always a Tempo and Time signature Track.

As when saving Patterns, the Left and Right Locator can be used to decide which part of a Track is to be saved. But, when Exporting MIDI Files, the whole Track is saved, regardless of how the Patterns on it are organized.

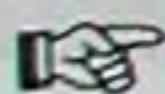
Use standard Atari ST procedures to enter a name and decide where you want to store the file.



MIDI standard files are given the suffix MID.

## DELETE FILES

This is used to delete all kinds of files from disk. Use standard Atari ST procedures to select the file to be deleted. Songs have the suffix SNG and Patterns the suffix PAT.



Do not delete files with the suffix RSC.

## NEW

The New command erases all music on all Tracks, but leaves all definitions as they are. If you want to start over with all definitions reset also, you have to load DEF.SNG and then select New.

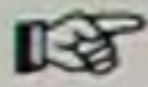
## QUIT

Quitting the program erases everything, there is no automatic saving to disk. So, make sure you have saved everything you want to keep before quitting.



## THE DESK MENU

Selecting **about...** from this menu first displays something you already know, the name of this program and the company that made it. But selecting it a second time might show you something you didn't know...



What is more important is that if at any time the screen is not redrawn correctly (like if a dialog box is left hanging on the screen after you clicked OK) selecting **about...** and clicking on OK will redraw the screen completely.







## THE MIDI MENU

The MIDI menu hides most of the MIDI definitions that you should set up for your system and save as DEF.SNG (page 157). It also holds procedures for System Exclusive dumps, and the Text Input function.

Also on the MIDI menu are the items that involve the SMPTE to MIDI Processors SMP-24 and Time Lock (Out-channel, SMPTE and Tape Control). These will remain grey (nonselectable) at all times if none of these units are connected to your computer.

## MIDI DEFINITIONS

If you select this item from the MIDI menu you are presented with quite a substantial window. It contains everything you might ever want to change when it comes to incoming MIDI-signals. This window also contains the setup of the Remote commands.

### ● FILTERS

Along the top on the right side of the window are three menus called Ch-Filter, Rec.Filter and Thru-Filter, and below, on the left side, is the Controller Filter.

**Ch.-Filter**   **Rec.-Filter**   **Thru-Filter**

### CHANNEL FILTER

The first filter menu allows you to deselect one or several MIDI-channels. Normally all the items on this list are ticked, which means that information on all MIDI-channels are accepted.

Click once on an item and its tick goes away. Information coming in on this MIDI-channel is now ignored. Click again and the tick comes back.

### RECORD AND THRU FILTER

These are two filters that remove events of a certain type, no



matter what MIDI-channel it comes in on. The item list is identical for both menus.

The **Record Filter** prevents certain types of MIDI-events from being recorded by the program.

The **Thru filter** stops certain types of events coming in via the computers MIDI In from being immediately passed on via its MIDI out (The MIDI-Thru function, described on page 166, prevents any data from being passed on when set to off).

## THE ITEMS ON THE MENUS

### ■ NOTE OFF AND NOTE ON

These are the MIDI-codes that build up the regular notes. Each Note On has to be matched by a Note Off or the note will keep sounding for ever, so watch out when filtering out just one of these types of events.

### ■ KEYPRESSURE

This filters out **polyphonic key pressure**, that is the type of pressure that can be applied individually for each key on a keyboard.

### ■ CONTROLLER

This filters out all controller information, regardless of its controller number. This involves the modulation wheel, breath controllers, footpedals, switches and so on. If you want to filter out one particular controller, see page 165, Control Filter.

### ■ SOUND

This removes all Program Change commands. These are normally used to make synthesizers switch from one preset to another.

### ■ AFTER-TOUCH

Is used to filter out all monophonic key pressure commands. That is pressure that affects all notes equally (as on the Yamaha DX-7).

### ■ PITCH-BEND

Removes all Pitch Bend commands.



### ■ SYS-EX

This filter takes away System Exclusive commands. Sys-Ex is used to transmit data that falls outside the MIDI-standard, codes that can only be understood by a certain manufacturer or type of instrument. It is mainly used to transmit information about the settings in a synth's presets. Sys Ex dumps of a length up to 170 bytes can be sent Thru.

### CONTROLLER FILTER

Four different controllers can be filtered out from the MIDI input at one time. Use the mouse's left and right buttons to set these to the relevant numbers.



Controllers are identified by numbers. Some of these numbers are more or less standardized. Number 1 is the modulation wheel, number 7 is MIDI-volume and so on. You will have to consult your equipment's MIDI Implementation Chart or Operation Manual to see what applies.

*If you feel unsure and don't want anything removed, set them all to 123. This is very unlikely to cause any problem.*

### ● CONTROLLER MAPS

Below the Record filter and Thru Filter menus you will find the text Cntrl. Map above two value boxes.



These are used to continuously transform one controller number into another. All incoming controller numbers can be transformed to any other number at the same time.

Select which controller you want to transform by scrolling through the list (0 to 127). This is done by holding the mouse pointer over the left of the two value boxes, using the left and right buttons to change the value.

Use the same method to set the number in the right value box



that you want the controller to be transformed into.

*This is a useful function if you want to use, for example, the modulation wheel on your keyboard, to control panning on a synthesizer. The modulation wheel is controller number 1 and panning is normally 11. Now you can set up a controller map that changes all controller changes for controller number 1 to controller number 11. Naturally this means that you can't at the same time use your modulation wheel for controlling vibrato on the same synth.*

## ● MIDI-CLICK

When recording in a studio, the built in beep-metronome of the Atari monitor might be insufficient. This function lets you send out the metronome via MIDI as note commands.

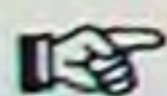
There are two parameters for this, that can be set using the mouse pointer and the two buttons as usual. The first is which note number that should be sent out, and the second on which MIDI-Channel.

When using the SMP-24, the MIDI-click is sent out on the same output jack as the MIDI-clock.

*Set up this parameter so that a really distinct non-pitched sound plays, like a rim or a cowbell sound from a drum machine.*

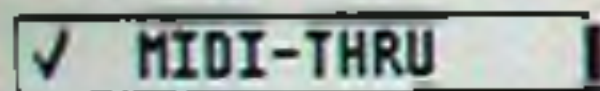
## ● MIDI-THRU

This button turns On (tick) and Off (no tick) the Thru function completely.



This setting is very important and how to set it depends on your MIDI-setup.

1. If you are using a monotimbral synth (or similar device) that is both used to input music into the computer and to play back the sound, you would have the synths MIDI In and Out connected to the computer. In this case you will probably want to set this function to Off (no tick). That way, the notes you are playing on your keyboard will only sound once (as they should).





If on the other hand you decide to set MIDI Thru to On (tick), any note pressed on the keyboard will be played by the synth directly (as always) but also sent to the computer's MIDI in, immediately passed back via the computer's MIDI out, and there-by played again by the synth, one or two milliseconds later. This can sometimes be perceived as a flanging effect that ap-pears only when you are recording music, not when you play it back.

2. If you are using a multitimbral keyboard both to input music into the computer and to play back the sound, you would also have both the MIDI In and Out connected to the computer.

The best bet here is to set the synth to Local Off (if possible, you have to check its operation manual), and activate 24's Thru function. Local Off cuts off the internal communication between the keyboard and the sounding part of the synth. This is effec-tively the same as having a separate master keyboard and a synth expander.

3. If you are using a multitimbral keyboard (as above) that can't be set to Local Off you can always use 24's Filter Channel func-tion (see page 167) set to the appropriate channel, and have the Thru function activated.

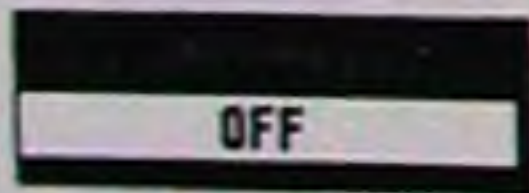
4. If you are using a separate input device (such as a master key-board or a guitar to MIDI-converter) and one or more slave synths, this function should definitely be set to On (tick). Oth-erwise nothing that you play will be retransmitted while you are recording, and you won't hear a single note you are playing! You may want to use a Filter Channel anyway (see page 167).

### ● FILTER CHANNEL

This is a function that stops information on a certain MIDI-channel from being sent Thru, even if MIDI-Thru is set to On (ticked). Only one MIDI-channel can be selected at a time.

Use the mouse pointer and buttons to set this parameter to chan-nel 1 to 16 or OFF.

This is useful when you have a multitimbral synth which can't be set to Local Off. That way you can use the MIDI-thru function





on all MIDI-channels but one, the one the keyboard transmits on. For more info on how to use this parameter, see MIDI-Thru, page 166.

### ● SYS. EX OUT

✓ SYS.-EX OUT

This filters out any sending of System Exclusive data. Since these are often very large packs of data, they can take some time to send, and therefore disturb the timing of the music.

This parameter can be set to On (tick), and this means that the program will transmit Sys-Ex data, or Off (no tick) which of course means that it doesn't.

Clicking on this button turns the function On/Off.

### ● MIDI-CLOCK

✓ Midi-Clock

This parameter turns On and Off the outgoing MIDI-clock. Pro-24 III can generate MIDI-clock and Song Position Pointer commands for tempo-control of drum machines and other sequencers.

Clicking on this button turns the function On/Off.

### ● MIDI-DELAY

8

When syncing the program to an external MIDI-clock (see page 65) you might want to delay everything by a certain amount of MIDI-clock units (24 per quarter note).

This parameter (set using the mouse as usual) does just that.

*This can be useful when you have an old Track on tape produced by another sequencer, and your new overdubs don't feel right. Or if you are syncing to a drum machine or sequencer and feel that Pro-24 III is playing ahead of the other device. This parameter can also be used in conjunction with the Pattern Delay (and Pre-Delay) parameter (page 49).*



## REMOTE CONTROL

On the left side of the MIDI-definitions screen is a long list of some of the programs commands and beside that a list of note numbers. This is the Remote Key Map. Remote Control allows you to access many of 24's functions from your MIDI-device (probably a keyboard).

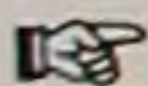
Remote Control	
REMOTE KEY	Note On C 0
STOP	Note On D 0

This is done by setting up a Map and making sure Remote is activated (ticked) on the Flags menu.

### ● USING REMOTE

To activate a command using the Remote function, you must first press and hold the synth key set up as the REMOTE-KEY on your map, and then press the relevant key. As Pro-24 III is normally setup when it is first started (before any definitions are changed) you activate PLAY by pressing and holding the C0 key and then press C# once.

These keys of course correspond to MIDI-note numbers, which means that you can use Remote from a guitar controller or whatever MIDI-device you use.

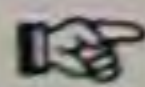


You may also use the Modulation wheel as a "remote key" to input values into the program. This is especially convenient when you do a Tempo Recording.

### THE DIFFERENT COMMANDS

#### ■ REMOTE-KEY

This is the key you have to press and hold to tell the program that all keys pressed from now on are intended as commands rather than music.



This key can not be used to record music at all when Remote is



active (ticked on the Flags menu).

■ **STOP, PLAY AND RECORD**

... work just as usual.

■ **LEFT L. AND RIGHT L.**

Moves the "tape" to the Left and Right Locator position, respectively.

■ **CYCLE**

Turns Cycle On and Off.

■ **REC POINTER L AND R**

Moves the Record Pointer one Track to the left and right, respectively.

■ **SOLO**

Turns Solo On and Off.

■ **CYCLE-SWITCH**

When in cycled recording, this switches the program between Record and Erase mode.

■ **QUANTIZE**

Quantizes according to the settings on the Main Screen.

■ **NEXT SUBTRACK**

Steps through the record Pointers A, B, C and D used for Multi Recording.

■ **DELETE SUBTRACK**

This corresponds to the first item on the Functions menu.

■ **DELETE LAST VERSION**

This corresponds to the second item on the Functions menu on the main Screen (see page 62).

■ **KEY ERASE**

This corresponds to the third item on the Functions menu on the main Screen (see page 62).



## ● SETTING UP THE REMOTE KEY MAP

To change which key correspond to which command, click once on the function you want to change. It will turn black. Now press the key on your MIDI-device that you want to activate this command. The new key is displayed.

*Instead of using keys (which are represented by MIDI-note numbers), you can use a controller to activate one of the Remote commands (preferably an on/off controller, not a continuous one). Just use the controller instead of pressing a key when setting up the Remote Map.*

When you are finished with the MIDI-definitions, click once on EXIT or press [Return] on the computer keyboard.

## MODE-SETTING

You can setup Pro-24 III to send out certain MIDI-commands on different channels. These commands are of two types.

1. The first is **MIDI-Mode** which is the main mode the receiving device should be put in. This is sent out whenever a new Song is loaded and when you Exit the Mode settings window. Use this to remotely put all your equipment in the right modes for a Song.
2. The second is the **All Notes Off** command used to turn off any "hanging" (or droning) notes due to Note Ons not followed by corresponding Note Offs. This is sent out whenever the program is stopped. Different brands react to different All Notes Off commands, hence the many different options. It is impossible to make a list of which synthesizers use which, you must experiment yourself.

Select **Mode-Setting** from the Midi menu. Click once on the box that you want to change, and use the left and right mouse buttons to step through the different options.



## ● MIDI-MODES

### MONO 1/MONO 2

Most synths can be set to Mono mode using either of these commands. But, some older instruments have to have one or the other. Only experimentation will tell which.

### POLY

Normal Poly/Omni Off mode. The synth receives on one MIDI-channel only.

### OMNI

Normal Poly/Omni On mode. The synth responds to MIDI commands regardless of what MIDI-channel they are coming in on.

### LOCAL ON AND LOCAL OFF

Local Off turns off the synths internal communication between keyboard and sound, effectively making it into a separate master keyboard and slave synth. Local On turns it back on.

## ● NOTE-OFF MESSAGES

### MONO1/POLY AND MONO2/POLY

An unusual combination of controller commands that turns off all notes on some older Yamaha synths.

### OMNI OFF

Sets up a synth to receive on one MIDI-channel only. It also happens to turn off all notes on some synths.

### ALL NOTES OFF

This is the command in the MIDI specification specially devoted to turning off all notes. This is the one you should try first.

### POLY/MONO1 AND POLY/MONO2

Also nonstandard commands that work with some Casio synthesizers.

### OMNI ON

Sets up a synth to receive on all MIDI-channels. It also happens to turn off all notes on some synths.



## DUMP-UTILITY

Although System Exclusive messages can be recorded just as music (see page 30), this is a handy utility that makes it easy to store banks of sounds for your synthesizers on disks, and send them back when you need them. You will need a fair amount of MIDI knowledge to use this function to its full potential. You will also need to know how your equipment does its Sys-Ex dumps.

Select **Dump-Utility** from the Midi menu. The window that pops up holds a number of functions and parameters.

### SYNTH:

This is a display box for the name of the synth this dump relates to. This box always says **unknown**, if you haven't loaded a Dump Module (see below).

### BYTES:

The number of bytes loaded into memory. This value may change a couple of times during a dump from a MIDI-device, since the data often comes in a couple of "chunks".

### MIDI-RECEIVE

This button puts the program in a waiting mode, where it is ready to receive data from a connected MIDI-device. This is the function to use if you can initiate the sending of System Exclusive data from the MIDI-device itself. This also clears any dump that is currently in memory.

### MIDI-REQUEST

This button sends out a request message, asking the device in the other end to send its data automatically. The program then waits until the data is received.

The request message in itself can either come from a Dump Module, or you can set it up your self using the **REQUEST:** line (see below).

### MIDI-SEND

This function sends out the System Exclusive data that is cur-



rently in memory. This data can come from one of two places; either from disk (see DISK-LOAD below) or it can be data just received or requested from a MIDI device.

## LOAD MODULE

This is used to load Steinberg Dump Modules from disk. These are "mini-programs" specially designed for different MIDI-devices. They sometimes contain whatever request and handshake messages it takes to "persuade" a MIDI-device to send its data. They can also contain routines for loading sounds from disk made with other Steinberg programs (like Synthworks) and sending them out to the connected device.

When you load a module, a window below the DISK-LOAD and DISK-SAVE buttons tell you something about what this particular Dump Module can do, and how it works.

## DISK-LOAD

This command is used to load a data dump from disk. It uses a standard Atari ST disk window and procedures.

## DISK-SAVE

This command is used to save a data dump from a MIDI-device to disk. It uses a standard Atari ST disk window and procedures. A sound file is given the suffix SND.

## CHANNEL AND POSITION BOXES

These two are used for inserting a MIDI-channel number or a MIDI device number into a System Exclusive dump before it is sent out to the MIDI-device.

If you have several synths of the same model in your system, you need a way to identify them, when sendings out Sys-Ex's too. Therefore a MIDI-channel or MIDI-device number (they are essentially the same) can be included at the beginning of the dump.

Use the CHANNEL: box to set the number in itself, and the Position: box to tell where in the message this shall be inserted. If you set the first to 15 and the second to 3, the third byte in the System Exclusive dump will be replaced with the number 14 (decimal) since MIDI *actually* numbers MIDI-channels from 0 to 15.



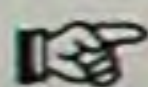
## REQUEST AND REQUEST MESSAGE LINE

At the bottom of this window is a line where you can type in your own request message in hexadecimal. The message naturally differs from device to device, but you can be sure that it should start with f0 and end with f7 (System Exclusive and End of System Exclusive).

When you have typed in your line, press [Return]. The numbers will now be sent out each time you press MIDI-REQUEST if no Dump Module is loaded.

*You can also test your request line, by pressing the REQUEST: box itself. This sends out the message without Pro-24 III waiting for an answer. You can then check if your MIDI-equipment seems to react to the message as intended.*

## OUT CHANNEL



This item can only be selected if you have an SMP-24 or a Time Lock connected to your computer (and turned on), but it is only of interest to SMP-24 owners.

When using an SMP-24 you can direct the Tracks not only to different MIDI-channels, but also to four different outputs. This page is a map of the twenty-four Tracks, and their Out Channel settings.

1		No		1	2	3	4
2		No		1	2	3	4
3		No		1	2	3	4

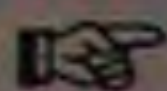
The leftmost column holds the number of the Track.

The next column after that is blank, and the next holds the MIDI-channel for that Track, as setup on the Main Screen. Use the left and right mouse buttons to set the Track to MIDI channels 1 to 16 or No.

The next column is also blank, but after this are four columns



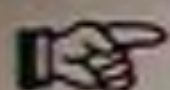
representing the four outputs. Each of these can be turned On or Off by clicking on them.



A Track can be directed to all four outputs if you so wish.

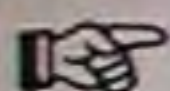
On the bottom of the screen are two special rows. The first (CLOCK) is used to set which outputs you want the MIDI-clock and the MIDI-click sent out on (if they are activated on the Flags menu, of course).

The second (RESET) is used for setting which outputs you want All Notes Off and Mode messages sent out on (see page 172).

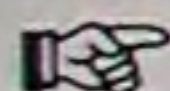


If you are using the Steinberg DMP-7 editor, this function must be turned off for the output connected to the DMP-7.

## SMPTE



This item can only be selected if you have an SMP-24 or a Time Lock connected to your computer (and turned on) and if you have the program set to external sync (EXT).



Do not press [Return] on the computer keyboard when entering values in the SMPTE window, as this will close the window!

### PLAY MODES

The central part of the SMPTE window are the three play modes. Click on the buttons to select either of them.

#### ■ FREE-RUN

With this mode activated you can set the tempo manually on the Pro-24 III Main Screen.

#### ■ CUE START

In this mode, Pro-24 III follows the Tempo and Time Signature settings on the Master Track only. This mode is also used to make the program start when it receives the SMPTE time of the selected Cue-point. (see below).



### ■ TAPE SYNC

In this mode, the program follows the Tempo and Time Signature settings on the Master Track only. Pro-24 III "chases" the incoming SMPTE times, and locks up to the time code, regardless of where in a Song you are.

### CUE POINTS

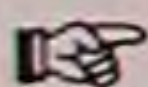
On the top of this window you will find boxes for selecting and setting cue points. These cue points are then used in Cue Start mode to start the song from a certain point. There is one special cue point called Start that is used in Tape-sync mode also. This is used to set at what SMPTE time the whole song should start, i.e. the SMPTE time corresponding to Position 1/1/0.

### ■ SELECTING CUE POINTS

You can use the forward and rewind buttons (<< and >>) to step through the 17 cue points (including Start). The Cue: and TIME boxes displays the SMPTE time and "tape" position for the cue.

### ■ ENTERING TIME (TAPE POSITION)

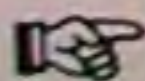
Click in the TIME box and use [Esc] on the computer keyboard to clear the line, or [Backspace] over the existing figures. Enter the "tape" position desired. Click on Get Cue and the program calculates the SMPTE time position for that cue and displays it in the Cue box.



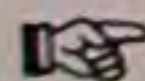
Remember that it is the master Track Tempo and Time Signatures that are used for this calculation (whether it is active or not).

### ■ ENTERING CUE (SMPTE TIME)

Click in the Cue box and use [Esc] on the computer keyboard to clear the line, or [Backspace] over the existing figures. Enter the SMPTE time desired. Click on Save Cue and the program calculates the "tape" position for that cue and displays it in the TIME box.



Remember that it is the master Track Tempo and Time Signatures that are used for this calculation.



You must use the Get Cue or Save Cue commands to finish off the input of a new cue, or the cue-point will not be stored.



## GET SONG

This command loads a Song (a list of cue points) from the SMP-24. This is very useful if you have used the Tap function on the SMP-24 to make up a list of tempo changes.

## WRITE SMPTE

When you click in this box, SMPTE time code is output from the SMP-24 or Time Lock, in the format (24, 25 30 or 30DF) set (see below). This is also called "striping the tape", and is something that must be done before you can sync to tape.

Time code is written starting at the SMPTE time defined for the Start cue point.

We recommend a Start point set to at least a couple of minutes after absolute zero (00/02/00/00/00 is a good setting). Otherwise, if you rewind the tape to a position before zero, the program may think that you are actually at the far end of the the song, not before it.

## SMPTE FORMATS

You must set the program to the type of time code you use. This is done by clicking in the relevant box.

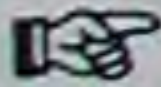
### ■ 24 FRAMES PER SECOND

This is the speed used for film, not video.

### ■ 25 FRAMES PER SECOND

This is the speed normally used for video in Europe (EBU-standard).

### ■ 30 FRAMES PER SECOND

 This is the speed normally used for video in the United States, Japan and other countries and is also the U.S. studio standard speed.

### ■ DROPFRAME (30 DR)

This speed is actually 29.97 frames per second, and is an adaptation to the actual color television frame rate.

### ■ NORMAL/U-MATIC

You can use the box in the lower right hand of the SMPTE win-

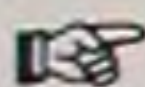


dow to switch between normal time code, and time code in the U-matic format.

### **CLOCK OUT**

SMP-24 and Time Lock can also put out a click type (not FSK) sync pulse. This can be set to one of four speeds, 24, 48, 96 and 192 PPQN (Pulses Per Quarter Note). This is used for synchronizing to older non-MIDI drum machines and sequencers.

When you are ready with you're SMPTE settings, click on EXIT, or press [Return] on the computer keyboard.



Each time you open the SMPTE window, the start time Cue point is sent out to the SMP-24 ,overwriting the Start Time set directly on the SMP-24.

## **TAPE-CONTROL**

This function is for future use only, and will remain grey (non-selectable) at all times.

## **TEXT INPUT**

Selecting this item from the Midi menu presents you with a mini-text editor where you can put in any comment that you want to save with your Song.

Pressing [Return] on the computer keyboard or clicking on the EXIT buttons closes this window. The text is saved with the Song when you save it to disk.







## THE FLAGS MENU

All the items on this menu can be set to either On or Off. On is indicated by a tick to the left of the item name. Each time you select an item from the menu you switch it from On to Off or vice versa.

### ● MIDI-CLICK

Turns the MIDI click (as set in the Midi Definitions window, (see page 166) On and Off.

### ● WARNINGS

This Flag determines if the program will display dialog boxes with warnings whenever you are about to do something that may result in music being deleted, overwritten or lost.

### ● RECORD CHANNEL

If you set this Flag to On, the MIDI-channel the instrument used for recording was set to, will be stored with the recording. This can later be used for playback if the MIDI-channel for that Track is set to No (see page 32).

### ● RESET ON STOP

If this is set to On, all controllers and pitch bend will be reset to 0 (zero) each time the program is stopped. With this Flag set to Off, a pitchbend wheel left at a high position when recording was stopped, will cause notes to stay "bent" forever (or until a corresponding pitch bend command "bends them back").

On the other hand, a controller that affects a sounds stereo position might be very annoying to have automatically reset every time the program is stopped.

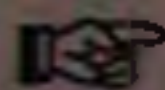
### ● RUNNING STATUS

Most synthesizers accept a MIDI datacompression method called Running Status, but not all. You can definitely leave this Flag set to On until you run into problems.

MIDI notes are built up of status bytes and data bytes. A status byte might tell that "this is a Note On command" and the data



bytes tell which note it was, and what velocity it had. The running status principle is that you don't repeat status bytes when it isn't needed.



As said, most synthesizers accept this, but some older ones may not. You will notice when they don't since they won't play back your music properly!

### ● PRECOUNT

This turns Off and On the two bar countdown. You might not need the countdown when doing cycled recording on short Patterns, and you definitely don't want it when you are transferring data from another sequencer or a drum machine to Pro-24 III.

### ● PLAYBACK PARAMETERS

This turns the Playback parameters On and Off (see page 47).

### ● BEEP

This turns the metronome beep produced by the monitors built in speaker On and Off. This can also be done using [B] on the computer keyboard.

### ● REMOTE

This activates and deactivates Remote control (see page 169).

### ● CYCLE: MULTI RECORDING

This turns On and Off the possibility to separate different MIDI-channels to different Tracks when recording (see page 63).



# COMPUTER KEY COMMANDS

## MAIN SCREEN

+	Raise value
-	Lower value
Alternate + or -	For coarser changes
Enter/Return	Start playback
Spacebar	Stop
*	Start recording
0	Zero
(	Jump to Left Locator
)	Jump to Right Locator
L	Set Left Locator
R	Set Right Locator
Shift + L or R	Set Left or Right Locator during playback
/	Destination box
F1-F10	Recall preprogrammed Locators
Shift + F1 and F10	Store Locators
Cursor Left and Right	Select Recording Track
Shift + Cursor Left and Right	Select Pattern
1-9	Select Active Track 1-9
Left Shift + 1-9	Select Active Track 10-19
Right Shift + 0-4	Select Active Track 20-24
Esc	Mute Active Track
Alternate + F1-F10	Recall group muting
Alternate + Shift + F1-F10	Store group muting
C	Cycle On/Off
A	Auto Recording On/Off
N	Pattern Name
S	Solo On/Off
T	Mastertrack On/Off
M	Sync mode Int, Midi, Ext
B	Metronome beep On/Off
X	Tape/Sequence mode
Q	Quantize
W	Record/Erase mode



#	Step to next Sub Track
!	Delete Sub Track
"	Delete last version on Sub Track
]	Key Erase
E	Go to Grid-Edit
D	Go to Score-Edit
F	Go to Drum-Edit

## GRID EDIT

+	Raise value
-	Lower value
P	Playback On/Off
0	Restart playback from beginning
*	Restart playback from Range
Spacebar	Move Grid to currently played position
(	Move Grid to start of Range
)	Move Grid to end of Range
Cursor Up/Down	Next previous event in list
Cursor Left/Right	Next page in event list
F1/F2/F3/F4	Select Position, Note, Veloc, Length
Delete	Delete
Insert	Insert
Numbers 1-7	Select Quantize value
.	Dotted notes On/Off
T	Triplets On/Off
M	MIDI-In
I	I-Mode On/Off
S	Step input On/Off
/	Swap Edit Page
R	Restore
Esc	Cancel
Return	OK



## SCORE-EDIT

+	Raise value
-	Lower value
Alternate + 1-7	Note display Quantize
P	Playback On/Off
*	Restart playback from Range
Spacebar	Move score to currently played position
Cursor Up/Down	Next/previous note
Cursor Left/Right	Next/previous bar
Clr Home	First/last note on the screen in upper clef
Shift + Clr Home	First/last note on the screen in lower clef
F2/F3/F4/F5/F6	Select Pos., Note, Vel., Len., Offvel., Chan.
Delete	Delete
0	Insert pause
S	Position box
Numbers 1-7	Select Quantize value
.	Dotted notes On/Off
T	Triplets On/Off
H	Hear edits
N	Notes On/Off (MIDI In)
V	Velocity On/Off (MIDI In)
I	I-Mode On/Off
Insert	Insert Mode On/Off
#	Raised notes
B	Lowered Notes
L	Print
/	Swap Edit Page
U	Update
R	Restore
Esc	Cancel
Return	OK



## DRUM EDIT

P	Play
(	Play current bar
0	Stop
*	Record
-	Erase mode
Cursor Left/Right	Rewind/Forward
Spacebar	Move to currently played position
Cursor Down/Up	Next/previous instrument
Tab, 4, and +	Tap selected instrument (in Rec mode)
L	Loop On/Off
B	Beep On/Off
Undo	Cancel
Return	OK

For the following four commands (E, Q, C, I) this scheme applies:

- ◆ Just pressing the relevant key on the computer keyboard is the same as selecting the item from the Bar menu.
- ◆ Holding the left [Shift] key while pressing the key on the computer keyboard is the same as selecting the item from the Loop menu.
- ◆ Holding the right [Shift] key while pressing the key on the computer keyboard is the same as selecting the item from the Pattern menu.

C	To buffer
E	Erase
Q	Quantize
I	Iterative Quantize





**Steinberg**

**PRO 24 III**