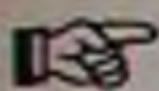☞ While the music is running, you can use the quantize function to select quantizing values and quantize using any method (Over-q, fixed length and so on). As long as you do not Stop recording you can also undo this quantizing by selecting another quantizing value (even OFF).

☞ You can also enter Erase mode and erase notes on the Track selected for recording (see page 61).
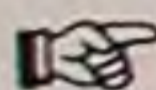
AUTOMATIC QUANTIZE

You can make Pro-24 III quantize everything you play automatically, according to the quantize method and value selected (see page 58).

To switch this function on, click once on the double lines (- -), in the leftmost Multi Recording box. They change to A (as in Automatic). Click again and they go back to being the little lines they were before (Off).
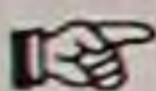
☞ As long as you do not Stop recording you can also undo this quantizing by selecting another quantizing value (even OFF).

☞ Automatic quantizing only works with Cycled recording.

● MULTI RECORDING

You can set up recording on four Tracks at a time, and then switch between these Tracks without stopping the music in between. This is perfect for creating complicated drumparts or for setting up a repeating drum and bass groove.
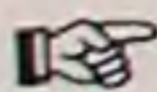
☞ Multi recording is only used with Cycled Recording.

Multi recording is done using four Sub Tracks called A,B,C and D. These in turn are each directed to one of the twenty-four Tracks. This means that you can at the same time record on four Tracks that send out on completely different MIDI-channels. This is perfect when you record a drum part with drumsounds from several machines.

SETUP

The four Sub Tracks A,B,C, and D are each represented by the buttons below the text Functions, but also by the four sections of four buttons each in the lower part of this whole box.

The paragraph Cycled Recording on One Track explains how to set up the first of these Tracks (Sub Track A) for Mixed, Auto or Normal recording and how to select Automatic Quantize for Cycled Recording. The procedure for setting up these parameters for the other three Tracks is identical.
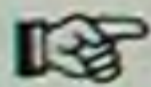
You also have to set up a Recording Track for each of those Sub Tracks A,B,C and D.

The first Track (A) is the one selected for recording as usual.

The next three are selected by clicking on the numeral in the lower right corner of each box. The Track number is in/decreased using the right and left mouse buttons.

You can only select a certain Track number in one of the boxes. If you use B for recording on to Track 7, then you can't select Track 7 for any of the other Sub Tracks.

RECORDING

Once you have set all the parameters as you wish, enter recording with Cycle activated.

To switch recording between the four Sub Tracks click once on A,B,C or D or step between them by pressing [#] on the computer keyboard. The Recording Track's box is black and the others white.
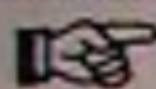
MUTING

If you click once on one of the little bells, the corresponding Sub Track is muted (the bell goes grey).

☞ This muting function can be activated and deactivated during or before recording, but once you've stopped recording it doesn't affect playback.

CHANNEL DIRECTION

As you understand, the Sub Tracks are each directed to one of the regular recording Tracks. As you also know, recording on a Track normally erases what was previously on it. Recording on a Sub Track directed to a normal Track with something already recorded on it uses a somewhat more complicated scheme:

◆ The recording Track set for Sub Track A is muted and erased when recording is started, just as with normal recording.

◆ The Tracks set for Sub Tracks B, C, and D are not muted during recording. If there was already something recorded on one of those Tracks you will here this while recording. But you can manually mute any or all of those Tracks using the little bell symbols as described above.

◆ If you use any of the B,C and D Sub Tracks for recording, music that was previously recorded on those Tracks will be *replaced* with the music now recorded, at the moment you stop recording.

◆ Just selecting one of the Sub Tracks B, C and D without playing any notes is not considered as recording on that Track and doesn't delete previously recorded music.

◆ If you have any of the Sub Tracks muted (by using the bell symbol, see page 60) when recording is stopped, this Sub Track is considered "not used" which means that the music recorded on that Sub Track now is deleted and previously recorded music on that Track is not erased.
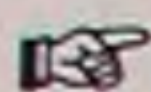
☞ While the music is running, you can use the quantize function to select quantizing values and quantize using any method (Over-q, Fixed length and so on). As long as you don't Stop recording you can also Undo this quantizing by selecting another quantizing value (even OFF).
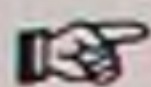
☞ You can also enter Erase mode and erase notes on the Track selected for recording (see page 61).

## ERASING DURING CYCLED RECORDING

`Mode:` `Record`

You may have noticed the text **Mode: RECORD** on the screen. This is a function allowing you to erase selected notes during cycled recording.

Enter cycled recording as usual. Record some music. When you hear a note (or notes) that shouldn't be there, click once on the text **Mode:** or press [W] on the computer keyboard. The text **RECORD** switches to **ERASE**.

You are now in Erase mode. You will stay there until you click **Mode:** again or until you Stop, and start recording again.

You can erase selected notes by pressing the relevant keys on your keyboard, but the notes are only erased as long as the keys are held down.

You can erase all notes by pressing and holding any mouse button over the text **ERASE**. The pointer turns into a cross (+). Notes are erased as long as you hold the mouse button.
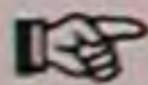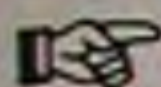
☞ Remember that this is permanent erasure that can't be undone.
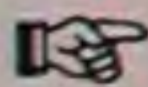
☞ You should only enter Erase in Mix or Auto recording mode. Normal mode is not suitable for this type of operation.

Functions

Del. Subtrack
Del. Last Vers.
Key-Erase
Del. Cont. Data
Del. Doubles
Quntiz. last v.

THE CYCLE FUNCTIONS MENU

When you are in the middle of cycled recording there are a few additional functions that can be selected. These are found on a menu that is pulled down by clicking on the word Functions. It stays down as long as you keep the mouse pointer on the menu or until you select an item from it.

☞ **This menu can only be selected *during* Cycled recording.**

■ DELETE SUBTRACK

This completely erases the Track currently selected with the boxes A,B,C, and D. This function can be reached from the computer keyboard by pressing [!].

■ DELETE LAST VERSION

This erases whatever you last recorded. Even if you don't play anything for several cycles, everything you last played during a cycle is erased. This function can be reached from the computer keyboard by pressing ["].

■ KEY ERASE

If you want to erase each occurence of one single note (All C0's or all F#3's or whatever) within the Pattern, press and hold the note to be erased, and select Key Erase from the Functions menu.This function can be reached from the computer keyboard by pressing []] (right bracket).

■ DELETE CONTINUOUS DATA

This deletes all kinds of continuous controllers, including pitch bend, modulation, breath controllers and so on, while leaving the notes intact.

■ DELETE DOUBLES

When you overdub during several cycles and Quantize, two identical notes might be recorded at the same position. This can have some strange effects like flanging, or a synth suddenly seeming to be reduced in polyphony. If you like it, leave it. If you don't, use Delete Doubles.

■ QUANTIZE LAST VERSION

This quantizes whatever you last recorded. Even if you didn't play anything for several cycles, only what you last played during a cycle is quantized.

Auto and Cycled Recording

● SEPARATED RECORDING FROM SEVERAL MIDI-CHANNELS

If you set the flag CYCLE: Multi-R. to on (ticked on the menu Flags), you can separate MIDI-signals coming in on different MIDI-channels. This can be used for recording several players connected to the Atari using a MIDI merge-box. Who said MIDI recording was for one man bands?

This is the order to which MIDI-channels are distributed:

MIDI-channels	Sub Track
1, 5, 9 and 13	A
2, 6, 10 and 14	B
3, 7, 11 and 15	C
4, 8, 12 and 16	D

Everything else is the same as when doing normal Multi recording.

This feature can of course also be used with single MIDI-devices sending on several MIDI-channels at one time.

SYNC

You may want to synchronize Pro-24 III to an external MIDI-device or to time code using a Steinberg SMP-24 or Time Lock.

The MIDI-specification allows for syncing using a pseudo "clock" sent twenty-four times per quarter note. You may also move "fast forward" and "rewind" using a MIDI command called Song Position Pointer. This is a number telling how far into a Song you are. By sending out that number, all devices can move to that position in the Song and then continue from there. Pro-24 III supports Song Position Pointers fully.

SYNC: INT.

To switch the program to MIDI sync, click once on the button SYNC or press [M] on the computer keyboard. The text switches from INT (Internal) to **MIDI**.

To switch the program to External sync (SMP-24 or Time Lock) click once again on the button SYNC or press [M] on the computer keyboard. The text switches from MIDI (Internal) to **EXT**.

And to switch back again to Internal sync (INT), click once on the button SYNC or press [M] on the computer keyboard.
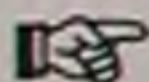
☞ **MIDI and External syncing can be done both on playback *and* while recording, even using Song Position Pointers.**

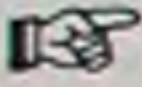How to send out MIDI sync from Pro-24 III is described on page 168.

One reason for using external Sync is that you might want to "overplay" music from another sequencer. If you do this, you may want to turn of the Precount (page 182).
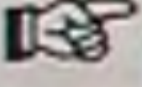
Sync

PATTERN EDITING

Whole Patterns and parts of Patterns can be moved around, deleted and copied in a number of ways. This can be done with or without Datacopy (see page 42). But remember:

☞ MIDI-channel and Status are not copied with a Pattern. This means that a Track's MIDI-channel setting has to be changed after copying, if so desired.

☞ All the following operations may confront you with dialog boxes warning you that the operation will destroy data already on the Track or in the Pattern. All these operations work according to the same method: If data overlaps, the old data will be erased and replaced with the new. If you want to merge or mix data from several Patterns you have to use Mixdown (page 75).

● DELETING A PATTERN (DELETE)

You can delete a Pattern completely in one of two ways. Either way you must first select this Pattern (see page 41).

1. Drag the Pattern into the VU-box.

2. Select Delete from the Pattern Menu.

A dialog box asks you to confirm that you want to permanently delete the Pattern. Click OK or press [Return].

● COPYING A WHOLE PATTERN

You can copy a Pattern to another position on the same Track, or to the same or another Position on another Track. Either way you must first select the Pattern to be copied.

You must also set a Destination position. The new Pattern will have its beginning at this position. To change the Destination Position, click once in the box DEST: and enter the values as with Locators.

```
DEST.:1  /1 /0  __
```
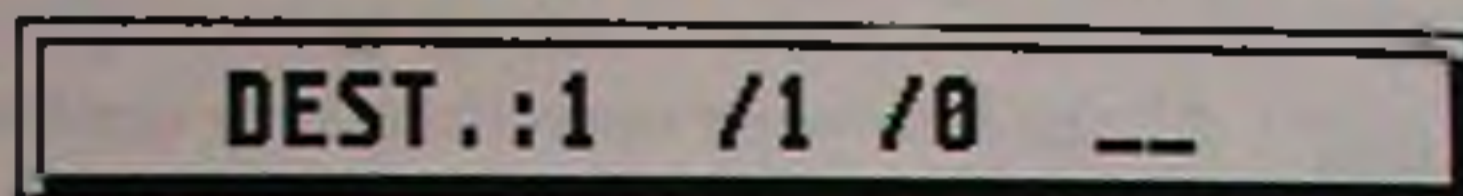
WITH DATACOPY

Drag the box with the text Patt: up onto one of the Track Select boxes. This might even be the same Track as the one the Pattern is coming from.
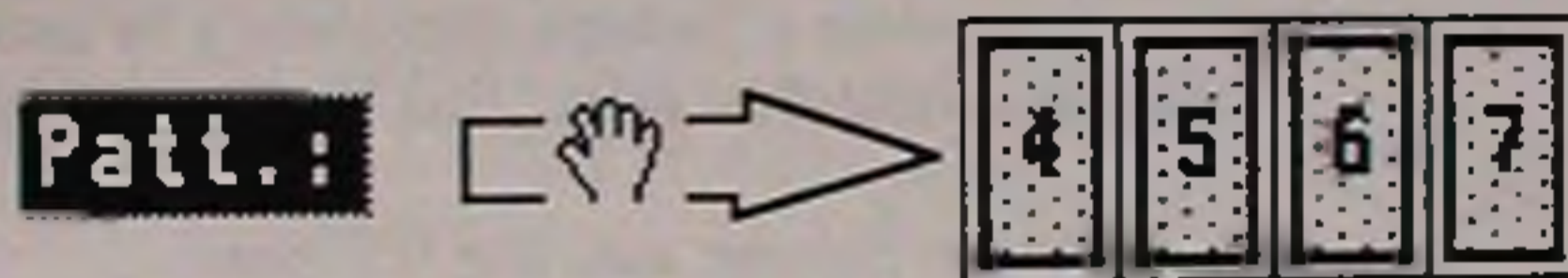
If there has been anything recorded at the new Position, a dialog box asks you to confirm that you want to replace the existing data with the copy.

Click OK or press [Return] on the computer keyboard.

The new Pattern will be given the old name preceded by a hyphen (-).

WITHOUT DATACOPY

Same as above, but while dragging, press and hold the left [Shift] button on the computer keyboard.

The new Pattern will be given the old name preceded by an ampersand (&).

An example of copying: You have recorded a drum part on Track

5 from bar 1 to bar 17. You want to replace two of the middle bars (7 to 9) with a two bar drumfill that is currently Pattern 4 on Track 24. You want this to be a Datacopy.

1. Set the DEST: box to 7/1/0.
2. Select Track 24 and Pattern 4.
3. Drag the box Patt: to the Track 5 Select box.
4. When the dialog box appears, click OK or press [Return] on the computer keyboard.

● MOVING A WHOLE PATTERN

You can also **move** a Pattern from one Position to another position on the same Track, or to the same or another Position on another Track. This can be thought of as copying a Pattern and erasing it at the old position in one go.

The procedure for moving a Pattern is exactly the same as when copying with Datacopy, except that you must press and hold the [Control] key on the computer keyboard, while dragging.

● COPYING A PART OF A PATTERN

You might also do operations that are similar to the ones described above but only involve a part of a Pattern. First you must select the Pattern to be copied. Then you must set which Part of it that is to be copied.

CUTCOPY

Double click on the little box marked **CUTCOPY**. Select the **Left:** and **Right:** fields by clicking on them with the mouse. Use the computer keyboard to clear the line ([Esc]) or to [Backspace] over the existing figures. Enter the ones desired.

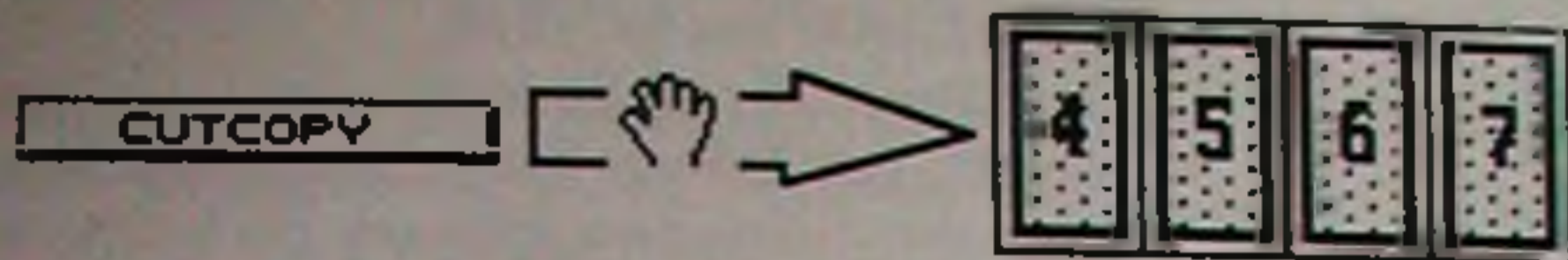Click OK or Press [Return] on the computer keyboard.

If you have entered Positions that are not within the Pattern, a dialog box will say **Range Error**.

You must also set a Destination position. The new Pattern will have its beginning at this position. To change the Destination Position, click once in the box **DEST:** and enter the values as with Locators.

```
DEST.:1  /1 /0  __
```

Pattern Editing

Drag the box **CUTCOPY** up onto one of the Track Select boxes. This may very well be the same Track as the one the Pattern is coming from.

If there has been anything recorded on the new Position, a dialog box asks you to confirm that you want to replace the existing data with the copy.

Click OK or press [Return] on the computer keyboard.

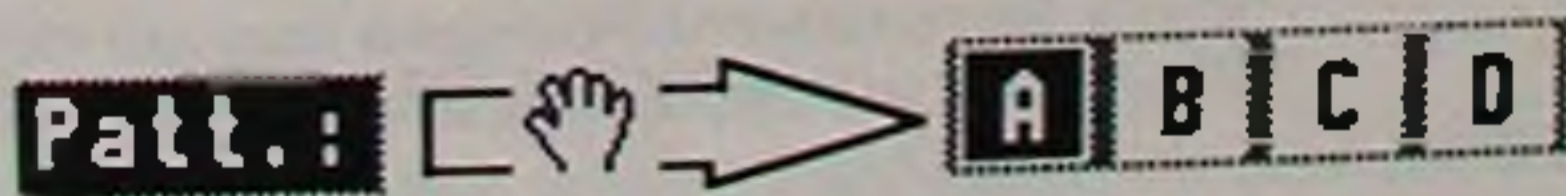The new Pattern will be given the name CUTCOPY.
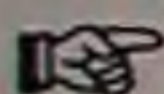
☞ You cannot use this function together with [Control] on the computer keyboard to *move* a Part of a Pattern.

● COPYING DURING CYCLED RECORDING

When you are in Multi Cycled Recording you may want to quickly make yourself a scratchpad of music to add things to. For this purpose you may copy Parts of Patterns while in Cycled recording.

Enter Cycled Recording as usual. Select the Track and Pattern that you want to copy.

Drag the Box with the text Patt. up on to one of the Sub Track Select boxes (A,B,C or D).

The Pattern is copied from its beginning, and as much of it as fits in the Cycle is copied.

This is a Datacopy, and the new Pattern is given the name NONAME.

Pattern Editing

● CHANGING THE LENGTH OF A PATTERN (CUT AND EXTEND)

You may want to alter the length of a Pattern. There are two ways of doing this.

CUT

Removes parts of a Pattern in its beginning, end, or both.

Select the Pattern that is to be Cut. Set up the Left and Right Locator. The music enclosed by their positions is the one that will be **kept**. Everything outside the Locators will be Cut.

Select Cut from the Pattern menu.

EXTEND

When you manually Stop recording, a Pattern seldom ends at exactly the first downbeat of the next bar. This function allows you to extend a Pattern to just that: the first down beat of the next Bar.

Select the Pattern to be extended.

Select **Extend** from the Pattern menu.

● SPLITTING A PATTERN IN TWO (SPLIT)

This function takes one Pattern and divides it into two independent Patterns. The Split Point is set in the DEST: box.
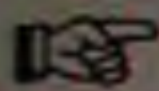
Select the Pattern to be Split.

Click once in the DEST: box and enter the position where you want the Pattern to be Split.

Select Split from the Pattern menu.

Both the new Patterns will be given the name of the old Pattern.

● JOINING TWO PATTERNS INTO ONE (APPEND)

This function takes two different Patterns and turns them into one. The second Pattern is added onto the end of the first.

☞ This function goes by the Name of Patterns, so if you have kept the name NONAME for all of your Patterns, this is the time to do something about it!

Select the Pattern that you want to Append another Pattern to.

Select Append from the Pattern menu. A dialog box with a lot of information is shown.
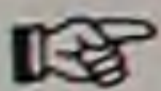
`NAME:_____`

The only thing you can affect in this box is the name of the Pattern you want to Append to the first. The rest of the boxes are merely there to display information about what you are about to do. They show the Track number, the start Position of the Pattern you are about to create, and its name.

Type in the name of the Pattern to be appended.
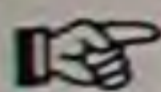
☞ Do not hit return until you are sure that this is the right name.

When you are ready, click OK or press [Return] on the computer keyboard.

☞ The program will only let you append a Pattern if there is enough "blank tape" after the first pattern to complete the operation without deleting anything.
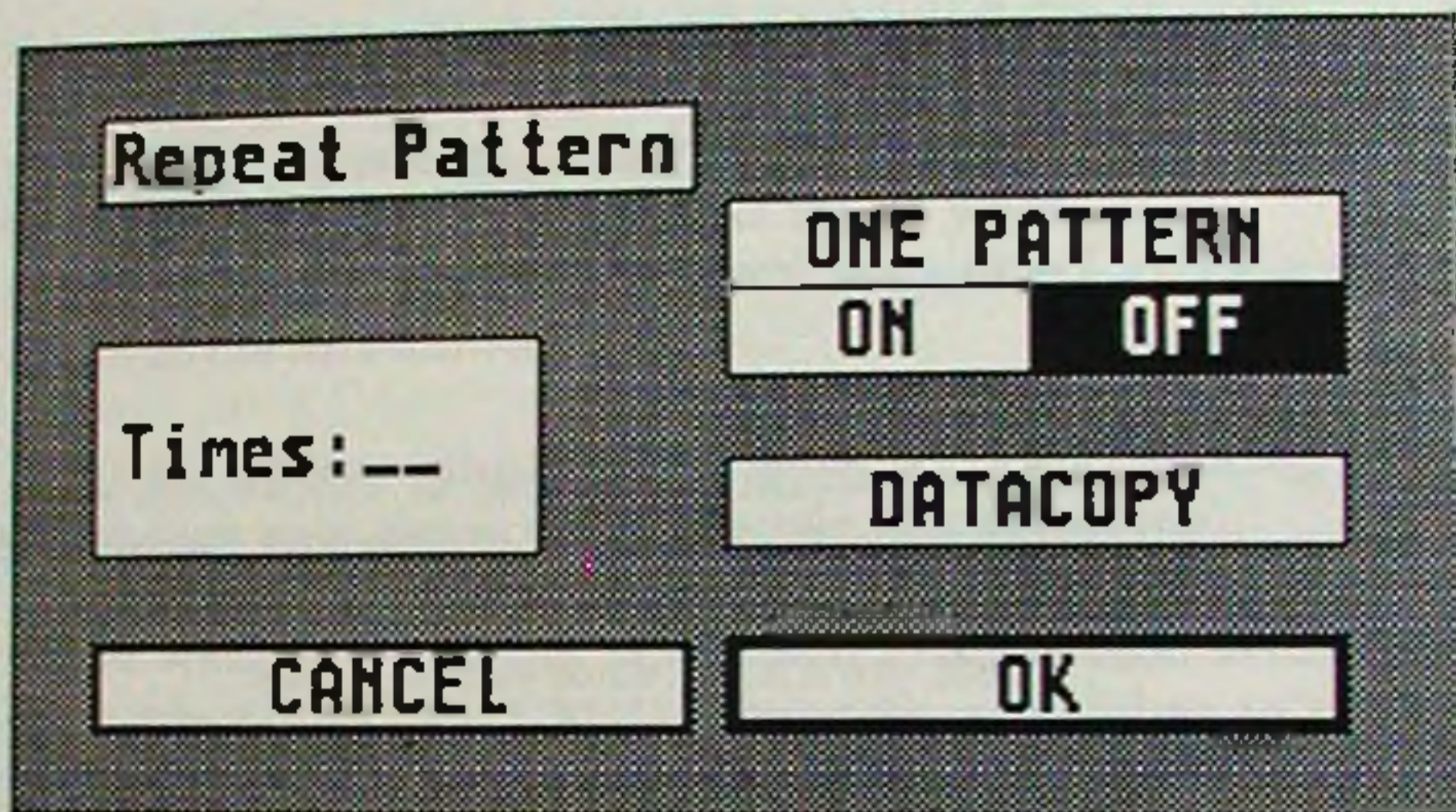
If a Pattern follows directly after the selected Pattern, the line NAME: (where you should type in a name) says next. If you just click OK or press [Return] on the computer keyboard at this point, this next Pattern on the Track will be appended to the selected Pattern.

● REPEATING A PATTERN (REPEAT)

You may want to repeat a Pattern several times on a Track. This can be done either by making up a number of identical Patterns, or by making up one new long Pattern, containing the same phrase repeated a number of times.

Select the Pattern you want to repeat.

Select **Repeat** from the Pattern menu.

```
┌─────────────────────────────────────────────┐
│  ┌──────────────────┐    ┌─────────────────┐ │
│  │ Repeat Pattern   │    │ ONE PATTERN     │ │
│  └──────────────────┘    │  ON  │   OFF    │ │
│                          └─────────────────┘ │
│  ┌──────────────────┐    ┌─────────────────┐ │
│  │ Times: __        │    │   DATACOPY      │ │
│  └──────────────────┘    └─────────────────┘ │
│  ┌──────────────────┐    ┌─────────────────┐ │
│  │    CANCEL        │    │      OK         │ │
│  └──────────────────┘    └─────────────────┘ │
└─────────────────────────────────────────────┘
```

You must set a number of parameters.

◆ **Times:** How many times you wish the Pattern to be repeated.

◆ **ONE PATTERN ON or OFF:** Click in either the ON or the OFF box. The selected option is negative (white letters on black). If this function is set to ON the whole procedure will result in one long Pattern containing the original Pattern repeated a number of times. If set to OFF the result is a number of Patterns identical to the original.

◆ **DATACOPY:** Click in this box. When set to on, the box is negative (white letters on black). This makes a Datacopy of the original Pattern. When set to off, copying is done without Datacopy. For an explanation of Datacopy, see page 42.

The new Pattern(s) will have the same name as the original, preceded by a an asterisk (*).

Pattern Editing

● CREATING AN EMPTY PATTERN (CREATE)

This function creates an empty Pattern on the Selected Track, beginning at the left Locator and ending at the Right.

Select the Track you wish to create a Pattern on.

Set up the Right and Left Locators for a start and end point.

Select **Create** from the Pattern menu.

Use Create for making up an empty Pattern for step programming on the Grid, Score or Drum Edit pages, or for erasing an existing Pattern.

● MIX-DOWN

This function takes several Tracks and adds them together to one composite Track containing all the music from all Tracks.

There are a number of uses for this:

◆ For example, you may wish to lay down drum parts on independent Tracks so that you have control over each line, and then Mix them to one Track.

◆ If you run out of Tracks you can do a Mix-Down to free up as many Tracks as you need. The new Track can still send out different parts on different MIDI-channels.

◆ Use the Double- and Half-speed features (see below) to create new Parts.

1. Set up the Left and Right Locators. The new Mix-Down Pattern will be one Pattern Starting at the Left Locator and ending at the right, regardless of how many and how long the Patterns are that the original Tracks are made up of.

2. Set up the different Tracks to the MIDI-channels you want. The MIDI-channel set will be a permanent Part of the new Track's notes. Each part in the Mix will appear as recorded with the MIDI-channel its Track was set to. This allows you to
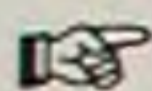
1

later play back this Track set to MIDI-channel No, and have all the parts separated to different MIDI-channels, just as when they were on separate Tracks.

3. Mute the Tracks that you don't want included in the Mix-Down.
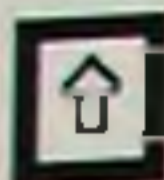
4. The Recording Track will be the destination Mixdown Track, so you must select a Track for recording.
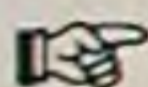
Observe that this Track will also be included in the Mix.

5. Select Mix-Down from the Pattern menu.

6. Select **Normal, Double** or **Half**. This refers to the resulting speed of the Mix-Down Track.

7. Watch the bar graphs dance as your music is being mixed down (you may dance yourself while you're waiting).

If you want the resulting Mix-Down Track to later send different parts on different MIDI-channels, remember to set it to MIDI-channel No before playing back.

You can use the Mix-Down function to mix down a Track to itself using double speed. This is good for Parts that you have difficulty in playing at normal speed.

Also remember that any of the Tracks included in the Mix can be set to MIDI-channel No when doing the mixdown. In that way you retain the original MIDI-channel info on that Track in the Mix.

● REMIX

This is just the opposite from Mix-Down. This function takes a composite Pattern (one that holds notes on several MIDI-channels) and divides it into many, one for each MIDI-channel in the composite part.

This can be used for Mix-Down Patterns that you wish to separate again, or for music recorded with an instrument sending on several MIDI-channels. It can also be used when transferring music from another sequencer.

1. Set up the Left Locator. The remixed Patterns will begin at the position of the Left Locator and become as long as is needed.

2. Select the Pattern that contains the part(s) to be remixed.

3. The Track where you want the part with the lowest MIDI-channel number should be selected for Recording. The part with the next MIDI-channel will wind up on the next Track, and so on.

This means that if you select Track 4 for recording and the music contains parts on MIDI-channels 7, 8 and 10, then the part on MIDI-channel 7 will be on Track 4, the part on MIDI-channel 8 will be on Track 5 and the part on MIDI-channel 10 will be on Track 6. Make sure you have enough Tracks!

5. Select Remix from the Pattern menu.

6. A dialog box shows up stating the first MIDI-channel found, and stating which Track this will wind up on. You may accept (OK) or CANCEL this part. If you Cancel, this part will be kept in the original Pattern.

7. The part on the next MIDI-channel will be directed to the next Track (or the same as last if you cancelled the last part).

8. After accepting or cancelling the parts as you like, you may continue to edit the individual Tracks.

THE EDIT PAGES

Pro-24 III has three pages devoted to different kinds of editing of notes. These are Grid-Edit, Score-Edit and Drum-Edit. Grid-Edit is a computerish graphic editor for notes and other MIDI events. It also holds two subpages, Event Edit and Logical Edit. Score-Edit is a graphic editor for notes, with the music displayed in conventional notation form. You can switch between Grid and Score-Edit while editing.

Drum-Edit is a graphic editor specially designed for making up and editing rhythmic Patterns.

These edit pages are all very powerful tools and might take some time to master. But be patient, you will be highly rewarded.

BASIC CONCEPT

As all editing in Pro-24 III, the edit pages are directed to a Pattern. You must therefore select the Pattern you want to edit before you do anything else. You cannot enter any of the edit pages if the selected Track is empty.

After entering the relevant page and performing the changes you want to make, you have the options of "OK-ing" the edits, which will store them permanently in your Pattern, or Cancelling, which of course restores the Pattern to its original form.

You may also at any time during editing click on a button called Restore which reverts the Pattern to its original form, without closing the edit page.

Grid and Score-Edit share most of the menus. For that reason, almost all menu functions for these two edit pages are only explained once, after the sections Grid-Edit and Score-Edit.

GRID-EDIT

To enter Grid-Edit, select it from the Pattern menu, or press [E] on the computer keyboard. A new screen picture is drawn on top of the main page, and the selected Pattern is played back automatically. If you want to stop this, click once on the PLAY button in the lower left corner of the screen.
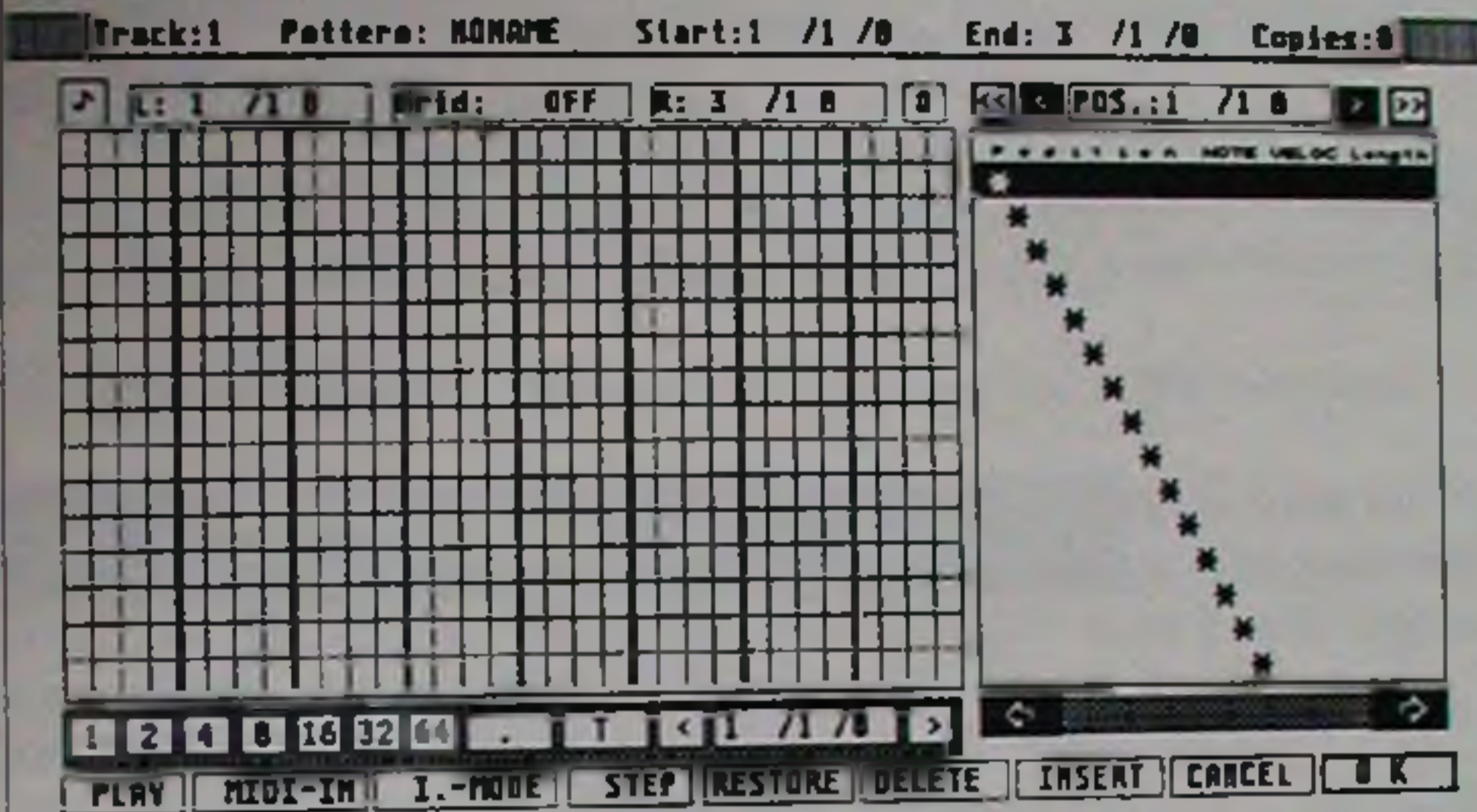
● THE SCREEN

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.
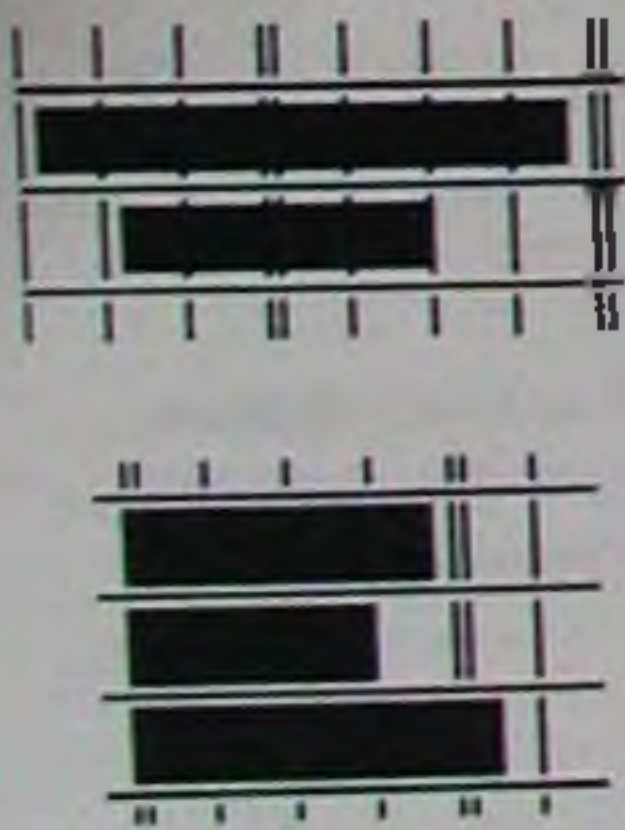
On the left side is the grid itself. It is used to display the notes as horizontal black bars. The whole grid represents two bars running from the left to the right. The double lines are the beats (fourth notes), and the lines in between are fractions of beats.

Notes are displayed in a list form with the earliest note at the top of the grid, and the latest at the bottom. This means that notes that start at the same position in the music (e.g. chords) have their left sides vertically aligned. If you see the vertical lines as positions in the music, you can easily see what notes occur at that position.

The length of the boxes represent the length of the notes.

The Edit Pages

If you click on one of the boxes, the note is played back via MIDI.

Since the grid only has room for 15 notes, you may not see all the notes that exist within the two bars.

Above the grid are a few boxes:

```
L: 1  /1 0
R: 3  /1 0
```

● GRID START AND END (L & R BOXES)

These are two display boxes showing where the grid starts and ends, the R: and the L: box. The grid can be thought of as a window to your music, and it can be moved to display any section of the Pattern.

```
Grid:    OFF
```

● GRID RESOLUTION

The box between the L & R boxes is used to select the resolution of the grid. You can raise or lower this by clicking with the left and right mouse buttons on the box. It can be set from 1/4 to 1/32 triplets and to OFF. If you set it to 1/8 you will note that you have half as many vertical lines as when you set it to 1/16.

You will actually only see any differences in the spacing of the vertical lines for values between 1/8 and 1/16 triplet (all other values are displayed as 1/16 resolution), but the other values are also important when you move notes on the grid, as we shall see.

● EVENT LIST

To the right of the grid is a list of all notes running from the top to the bottom. Each black box on the grid corresponds to an item in the list. If you want to look at the exact values of one of the notes, just follow the horizontal grid lines to the right, until you reach the event list.

```
<<  <  POS.:1   /1 0   >  >>
    Position  NOTE VELOC Length
    1  /1 /0   D  0  91  24
```

The event list is divided into four columns displaying the start position of a note (Position), its pitch (NOTE), its velocity value (VELOC) and its length (Length).

The down and up arrows on the computer keyboard are used to scroll through the list one note at a time, and the left and right arrows are used for coarser steps. There are many other ways of moving around in a Pattern, described on page 81.

You can select any note in the list by clicking on it. It then turns black, to indicate that it is ready for editing.

TIME POSITION

If you doubleclick on the word Position in the Event list headings, a local menu falls down. This holds two items called Additionals and Time Position. Both items can be set to On (tick) or Off (no tick) by selecting them from the menu.

With Time Position set to On, all Positions are displayed in **Hours : Minutes : Seconds : Frames** instead of bars beats and ticks. This especially useful if you are using an SMP-24 or Time-Lock for synchronizing to SMPTE time code.

● PLAYING BACK A PATTERN

PLAY

You can turn the playback function on and off by clicking in the box named PLAY on the lower left hand of the screen, or by pressing [P] on the computer keyboard. Playback normally starts from the beginning of the Pattern, and is automatically looped. If you want to play back just a part of the Pattern you must set a Range, see page 82.

RESTART (NOTE SYMBOL)

♪

If you click on the little note symbol above the upper left corner of the grid, the music is played back from the beginning of the displayed grid. [*] on the computer keyboard can also be used for this.

The Edit Pages
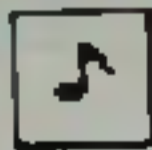
● MOVING THE GRID TO SHOW A PART OF A PATTERN

You can make the grid show the part of the Pattern you are interested in in a couple of ways. All these methods work along the same lines. In one way or another you specify the position of the first note you want to see. This moves the grid so that this note is the top box in the grid. The left side of the grid is always at the beginning of a bar.

```
<<  <  POS.:1   /1 0   >  >>
```
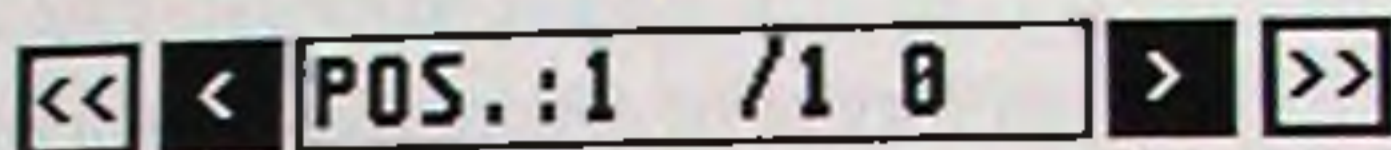
1. Click once in the POS box above the event list. Enter a Position just as when setting Locators, and press [Return]. The Grid is moved to display a section starting at the entered position. This number can only be set to the nearest 1/16 note (multiples of 24 ticks).

2. The Forward/Rewind (< and >) symbols above the Event List can be used to move the grid so that the next/previous note becomes the first.

3. The Fast Forward/Rewind (<< and >>) symbols are used to move the grid four beats.

4. If you press the [Spacebar] at any time while the Pattern is playing back from the Grid-Edit page, the grid is automatically moved to that position.

5. The left and right arrows on the computer keyboard perform the same function as Fast Forward/Rewind.

6. [0] on the computer keyboard returns the grid to the beginning of the Pattern.
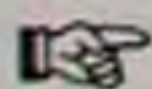
☞ If there are no notes at the selected position, the grid moves to the next existing note. If there are no notes at all after the selected position, the grid moves to the beginning of the Pattern.
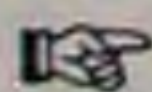
☞ You can also move the grid to the start or end of a Range, see page 83.

The Edit Pages

● WORKING WITH A RANGE

You can specify a Range, i.e. a part of a Pattern, to work with. The current range is displayed as two positions to the right of the word **Range:** on the top right hand of the screen. **Range** on the **Flags** menu is used to switch between working with the Range, or working with the whole Pattern.

SETTING A RANGE

GRAPHICALLY

You may have noticed that the top row of the Grid isn't used to display any notes. This can instead be used to graphically form a short range within the grid.

1. Press and hold any mousebutton in this top row. The horizontal position defines the Left position of the range.

2. Drag the pointer to the right, and release the mouse button. The horizontal position of the pointer when you released the mouse defines the Right position of the Range.

3. Select Set Range from the Edit menu.
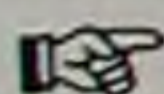
☞ Since you are moving within the displayed Grid, a graphically set range can't possibly be longer than the section displayed within the grid.

NUMERICALLY

Select **Set Range** from the Edit menu. A small box appears on the screen with two lines called Left and Right.

Click on either of these and use [Esc] on the computer keyboard to clear the line, or [Backspace] to back over the existing figures.

Enter the numbers just as with Locators. When you are ready, click OK, or press [Return] on the computer keyboard.

■ USING SET LEFT AND SET RIGHT

If you select **Set Left** from the Edit menu, the Left Range position is set to the position in the **POS.:** box above the Event list, rounded off to the nearest beat.

If you select **Set Right** from the Edit menu, the Right Range position is set to the position in the **POS.:** box above the Event list, rounded off to the nearest beat.

ACTIVATING THE RANGE

Once the Range is set, you can turn the range function on and off by selecting **Range** from the flags menu. When it is activated, the text is black , otherwise it's grey.

PLAYING BACK THE RANGE

It is automatically the Range only that is played back when you have activated the Range.

MOVING THE GRID TO THE RANGE

If you press [(] on the computer keyboard the grid is moved to the beginning of the range, and if you press [)] to the end of it.

● MOVING A NOTE

There are a couple of ways to move a note's position within the Pattern.

■ GRAPHICALLY

Point at any of the black boxes representing notes on the grid, and press and hold any mouse button until the pointer turns into a hand.

Drag the note to a new position and release the mouse button.

The note automatically snaps to the closest note value set with Grid Resolution (see page 79).

You can think of this as a form of Quantizing, and this is why it

is important to set the Grid resolution to the desired value. If Grid resolution is set to Off, a note can be moved to any position.

When you release the note, its Position in the Event List is changed to the new value.
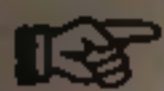
☞ If you move the note so much that it for example winds up *after* a note that it was previously *before*, the order of the notes are of course changed both graphically and in the Event list. The Grid is chronological (events are shown in the order they happen).

An example of this. You have three notes at the Positions 1/1/0, 1/2/0 and 1/4/0. If you move the first note (1/1/0) so that its new position is 1/3/0 it will be inserted between the other two notes in the list, and what was previously the second note (at 1/2/0) is now the first. Still confused? Try it out and you will understand.
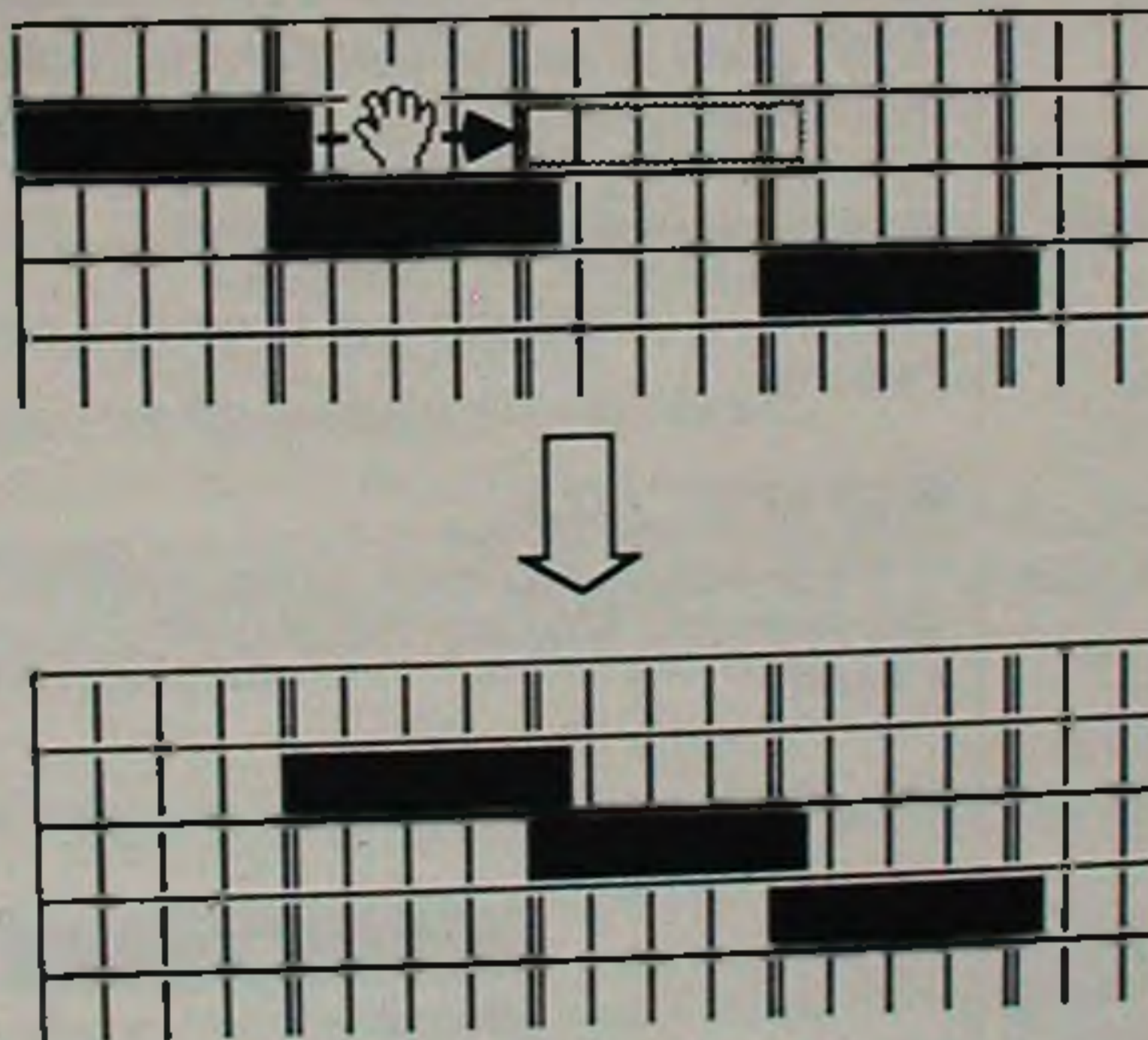
■ NUMERICALLY
You can change the position of a note by changing its Position value in the Event list.

First you must tell the program that it is the Position of the

The Edit Pages

note you want to change, by clicking on the word Position on the top of the list or by pressing the function key [F1] on the computer keyboard. The word Position turns negative.

Then you must select the note in the list by clicking on it. It also turns negative. You can also use the up/down and left/right arrows on the computer keyboard to scroll through the list one note at a time or in coarser steps.

Once you have the right note selected you can change the position value in three ways:

1. In/decrease the value by clicking directly on it using the left/right mouse buttons.

2. Use the horizontal Data Fader below the list.

3. Use the [+] and [-] keys on the computer keyboard.
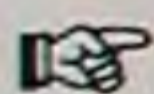
For practical reasons it is not possible to numerically change a note's position so much so that it would wind up on a new place in the list, as in the example of graphical editing on page 84.

● COPYING A NOTE

You may copy a note at any time. The procedure is identical to Moving a Note Graphically. The only difference is that you must press and hold [Control] on the computer keyboard while dragging the note.

● CHANGING THE LENGTH OF A NOTE

The length of a note can also be changed in two major ways.

■ GRAPHICALLY

If you point at the lower right corner of a note box and press either mouse button, the pointer turns into a finger. Finding the right part of the box may take a few tries, but you will find it.

You can then drag the right side of the box so that the note is lengthened or shortened.

When you release the mouse button, the note's length value in the event list is changed accordingly.

■ NUMERICALLY

You can change the length of a note by changing its Length value in the Event list.

First you must tell the program that it is the length of the note you want to change, by clicking on the word Length on the top of the list or by pressing the function key [F4] on the computer keyboard. The word turns negative.

Then you must select the note in the list by clicking on it. It also turns negative. You can also use the up/down and left/right arrows on the computer keyboard to scroll through the list one note at a time or in coarser steps.

Once you have the right note selected you can change the length value in three ways:

1. In/decrease the value by clicking directly on it using the left/right mouse buttons.

2. Use the horizontal Data Fader below the list.

3. Use the [+] and [-] keys on the computer keyboard.

● CHANGING THE NOTE VALUE AND ATTACK VELOCITY

There are four more values in the Event list that can be changed for each note, the first two are the Note value and the Velocity value. You can't reach these graphically from the grid, but there are still two ways of changing two of them, via MIDI or numerically. Either way you must first select the note in the list as described earlier.

VIA MIDI

You must first tell the program if you want to use MIDI to input a new velocity value, a new note value, neither or both.

The Edit Pages

■ SETTING MIDI IN

Click once on the MIDI In button on the lower part of the screen or press [M] on the computer keyboard. A small window opens up where you can turn on and off **Note** and **Velocity** input. Select the desired combination by clicking with the mouse, and then click on **EXIT** or press [Return] on the computer keyboard.

If any of the two values (or both) are set to On, the MIDI In button will be ticked. If both are set to Off, there will be no tick.

■ CHANGING THE VALUES

When you have the the MIDI In function set up as you want it to be, and the right note selected, just press a key on your MIDI keyboard, and the current values are replaced with the ones played.

The program automatically jumps to the next event in the list, and you can keep inputting values by just pressing the right keys.

NUMERICALLY

Select the heading (NOTE or VELOC) that you want to change by clicking on it, just as when changing the Position or Velocity of a note numerically (see page 86). When you have the right note selected, use one of these three methods to change the value.

1. In/decrease the value by clicking directly on it using the left/ right mouse buttons.

2. Use the horizontal Data Fader below the list.

3. Use the [+] and [-] keys on the computer keyboard.

● CHANGING THE RELEASE VELOCITY AND THE MIDI CHANNEL

If you **doubleclick** on the word Position in the Event list headings, a local menu falls down. This holds two items called Additionals and Time Position. Both items can be set to On (tick) or Off (no tick) by selecting them from the menu.

Position
Additionals
Time Position

If you set Additionals to on, the column headings VELOC and Length are replaced with (OFF)VELOC and CH: These two columns now display release velocity and MIDI-channel values for all notes.
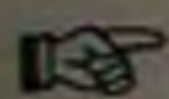
☞ These values can be edited just as the others, but only numerically.
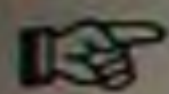
☞ Attack velocity is the normal velocity that most keyboards use. Release velocity is the speed with which you released the key. This kind of velocity is implemented on very few keyboards. You don't have to worry about this value if your MIDI equipment isn't able to send or receive this kind of information.
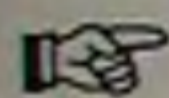
☞ Release velocity is not played back from Grid and Score edit.

● SETTING QUANTIZE VALUES

You can set the Quantize values on the Grid-Edit screen. This is then used for all the different types of Quantizing, and also for inserting notes and step programming. Quantizing itself is done identically on the Note and Grid-Edit pages, and is described on page 113.
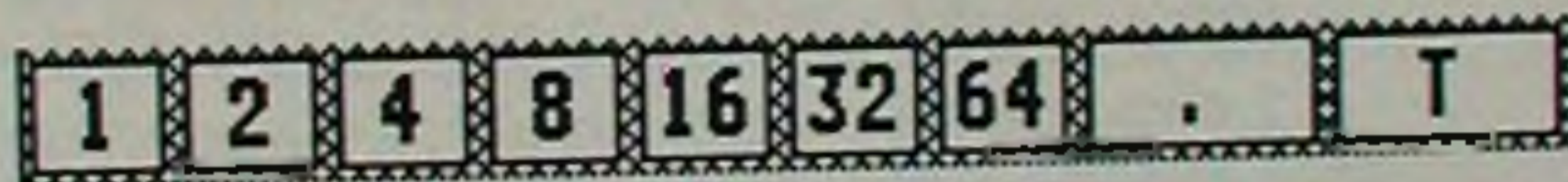
1	2	4	8	16	32	64	.	T

You can select one of the seven quantizing values ranging from whole notes (1) to sixtyfourth notes (64), by clicking directly on the buttons below the grid. You can also use keys [1] to [7] on the computer keyboard.

You can also select quantizing to triplets of the selected value by clicking in the T box or by pressing [T] on the computer keyboard.

You can select quantizing to dotted notes of the selected value by clicking on the box with a period (.) or by pressing [.] on the computer keyboard.

● INSERTING NOTES AND STEP PRO-GRAMMING

Central to all editing of the following types are the **Quantize Values** and the **Step Input Position** box to the right of the Quantize values.

1. When a new position is selected for insertion this position is shown in the Step Input Position box. To set this to a new value, click on the arrows that flank the box to step backwards/forwards in the Pattern.
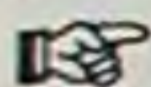
☞ **You move in steps determined by the Quantize value.**

An example. If the Step Position box says 2/1/48 and the quantizing value is 1/16, one click on the right arrow takes you to 2/2/0.

2. The inserted notes lengths are also determined by the Quantize value.

INSERTING A NOTE

If you want to insert a note somewhere in the Pattern you must first select the Position where you want to insert the note by setting the Step Input Position box as described above.

■ WITHOUT AFFECTING OTHER NOTES

`INSERT`

Click once on INSERT or press [Insert] on the computer keyboard, and the note is inserted. It doesn't necessarily appear on the screen, since there is no correlation between the Step Input Position Box and what is shown on the grid.

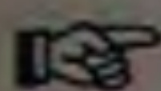The other notes are not affected in any way.

If you change the note or velocity value of the note last inserted, all notes inserted from that point on will take on the same values.

■ WHILE SHIFTING THE FOLLOWING NOTES

`✔ I.-MODE`

If you click on the box I.-MODE or press [I] on the computer keyboard you activate and deactivate Insert Mode.

The Edit Pages

☞ In this mode all the notes after the one inserted will be moved one Quantize step forward in the Pattern.

Furthermore, if you click on the forward arrow in the Step Input Position box, a pause is inserted and all the notes coming afterwards are moved one Quantize step forward.

Therefore, if you want to move to a Position for insertion of notes, without affecting notes already in the Pattern, you must select your insertion point using the Event List, not the Step Input Position box. You do this by scrolling through the notes, either using the (Fast) Forward/Rewind buttons above the Event List, or the arrow keys on the computer keyboard.

INSERT

To insert a note, click on INSERT or press [Insert] on the computer keyboard, just as when inserting notes without affecting other notes.

STEP PROGRAMMING

This is a form of note insertion done either from your MIDI keyboard, by clicking on INSERT or by pressing [Insert] on the computer keyboard. The big difference is that the program moves automatically one quantize step forward each time you input a new note (or chord).

If you want to use step programming as a way of making up a whole new Pattern, you must first create that Pattern using the Create command on the Main Screen.

√ STEP

Select step programming either by clicking on STEP or by pressing S on the computer keyboard.

The Step Input Position box automatically moves to the Position one quantize step after the Position of the last note in the Pattern.

From this point you can step one step backwards (using the Step Input Position box) to insert a note at the same position as the last, but not any further than that.

You can however step forward at any time, and this is a very convenient way to insert a rest.

The Edit Pages

INSERT

To input a note, click on INSERT or press [Insert] on the computer keyboard.

Alternatively, play the note(s) you want to input on your MIDI keyboard.
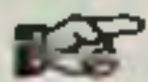
☞ You can input chords (notes that wind up at the same position) by pressing several keys at the same time. The program doesn't step forward until you release the last key.

☞ You can change the Quantize value while you are step programming, so that notes of different lengths can be put in.
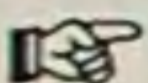
☞ Give the program a chance to store the note(s) and update the screen before you input new notes. Don't expect to use step programming as a pseudo realtime input.

● DELETING NOTES

You can delete a note by first selecting it in the Event List, and then either click on DELETE or press [Delete] on the computer keyboard. The program automatically moves to the next note in the list, so repetitive deletes can easily be done.

DELETE

● 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 Grid-Edit.

RESTORE

● CANCEL

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

CANCEL

● OK

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

O K

● EVENT EDIT

While in Grid-Edit you can move into another window similar to the normal Grid-Edit screen, called Event edit. This editor is used for editing non-note events, like pitch bend, controllers, program changes and so on. If you are a complete MIDI-beginner, this part of the program may not be the easiest to use, since it requires some knowledge about how MIDI events are organized.

☞ Event Edit functions are very similar to the normal Grid-Edit, so this chapter only deals with the differences between the two.
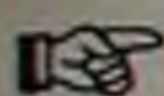
☞ The only computer keyboard commands you can use on the Event edit screen are [+], [-], [(], [)], [Esc] and [Return].

THE GRID
The grid is not active at all in Event Edit mode.

THE EVENT LIST
... works in many ways just as usual, but you can't use the arrow keys on the computer keyboard to scroll through the list. Also using (fast) forward/rewind may take longer mouseclicks.

The headings in the list are also changed to show **Position** (of the event), **Mode** (what type of event it is) and two values, **Val1** and **Val2**. Sometimes only one value is used for an event, and the the Val2 column reads - - for that event. All the columns (even Mode) can be changed directly to other values in the list, just as in the Note Event List.

These are the types of events that can be shown:

■ **KEY PRESSURE**
Displayed as **Keypres**. This is polyphonic aftertouch (individual for each key), and Val1 represents the note number and Val2 the pressure value for that note.

■ **CONTROL CHANGES**
Displayed as **Control**. This is regular control changes with Val1 representing the controller number, and Val2 the controller value.

The Edit Pages

■ PROGRAM CHANGES

This type of event is displayed as Sound. Only Val1 is of interest here, and it represents the Program Change number that will be sent out to the receiving MIDI-device.

■ AFTER TOUCH

Also called Channel Pressure or Monophonic Pressure. This type of event, displayed as A. Touch, is used for pressure commands that apply equally to all notes on a MIDI-channel. This type of pressure is the one implemented on the DX-7. The only value used is Val1, and this represents the amount of pressure.

■ PITCH BEND

... is displayed as Pitch. Both values (Val1 and Val2) are used, but not all MIDI-devices send anything that corresponds to Val1 (in fact most doesn't). For these devices Val1 will be 0 (zero) at all times.

ADDITIONALS AND TIME POSITION

These exist in Event edit too. Additionals is used to switch the Val2 column to CH: (MIDI-channel).

RANGES

You can form and use Ranges just as when Note Event editing.

INSERTING EVENTS

Inserting an event into the list is a three step process.

1. Select the kind of event you want to insert by selecting it in the Mode: box above the grid. You can step through the options using the left and right mouse button.

2. Select an insertion point. This is done using the Step Input Position box just as usual.

3. Click on INSERT, and the event is inserted with default values, which later can be changed using the mouse, data fader or [+] and [-] keys on the computer keyboard.

RESTORE, DELETE CANCEL AND OK

All these commands work just as usual, but instead of taking you back to the Main screen, OK and Cancel takes you to the normal

The Edit Pages

Mode:Keypres

Grid-Edit.

THE EVENT MENU
This menu is used for a few special commands that only apply to non-note events.

■ LOGICAL EDIT
Logical Edit for the Event editor is explained with normal Logical Edit on page 118.

■ REVERSE
Takes all events in the Pattern and reverses their order.

■ QUANTIZE
Sometimes when you have a lot of events happening at the same time, you may experience delays or "MIDI-jams" (instruments locking up). Pro-24 III gives priority to notes at all times, so the primary parts of your music shouldn't be affected. But, you may at some times want to thin out non-note events anyway. This is called Event Quantizing.

1. Select a Quantize value by clicking on one of the boxes marked 1 to 64, and Dot and Triplet (. and T).

2. Set up and activate a Range if so desired. If you do, only events within the range will be affected.

3. Select Quantize from the Event menu.

The ear is quite sensitive to coarse pitch bend changes, so try to minimize these, or at least use one of the higher values (32, 64 or so). Other control changes can be quantized more, all depending upon what musical function the controller has. Experiment! (but save to disk first!)

■ NEW POS
This command moves a selected event to a new Position.

1. Select the event you want to move by clicking on it in the Event List.

2. Set the Position you want to move it to, using the Step Input

The Edit Pages

Position box.

3. Select **New Pos** from the Event menu.

■ MODE-DELETE
This function deletes all events of a certain type.

1. Select an event in the Event list of the type you want to delete.

2. Set up and activate a Range if so desired. If you do, only events within the range will be affected.

3. Select **Mode-delete** from the Event menu. All events of the selected type (within the Range) are deleted.
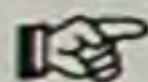
☞ When Mode-Deleting controllers, only controllers with the same number as the one selected in the Event list are deleted.

SCORE-EDIT
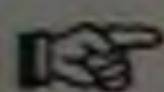
☞ As said earlier, most of the menus and their items are identical on the grid and Score-Edit pages. Therefore, these are only explained once, after this chapter.

To enter Score-Edit, select it from the Pattern menu, or press [D] on the computer keyboard. If the music is playing, and you don't want it to, click once on the Play button, or press [P] on the computer keyboard.
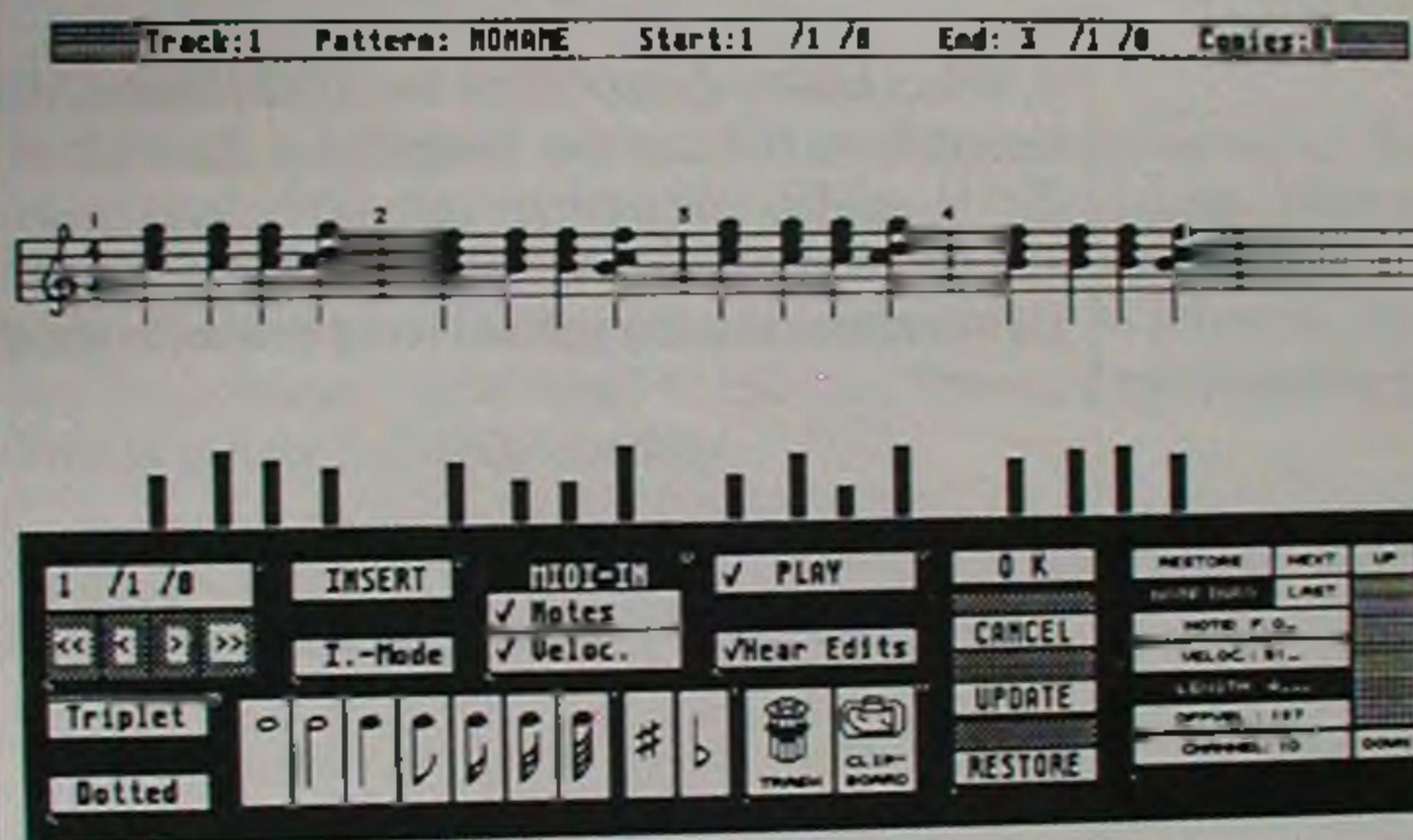
● THE SCREEN

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.

Below that is the music in itself, displayed in conventional music notation. You may see between one and five bars, depending on Screen Quantization. You may also see both a bass and a treble clef, depending on your Splitpoint setting.

Just below the score is a set of bars which show velocity of the notes above.

In the shaded grey area below you find the available commands for using Score-Edit.

● GETTING THE SCORE PROPERLY DISPLAYED

The menu Scores is mainly devoted to the display of notes.
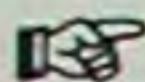
☞ The settings in this menu don't affect the music you have recorded in any way, they are only there to make the score "readable".

■ SWAP EDIT PAGE

Takes you to the Grid-Edit page (see page 117).

■ CHANGE KEY

You can tell the program what key you want your score displayed in. Select **Change Key** from the **Scores** menu.

There is a button to click for each of the selectable keys. Click on the one you want, and the picture in the middle shows all the sharps and flats for that key. When you have selected the right key, click on OK or press [Return] on the computer keyboard.

■ CHANGE CLEF

This command is used to set if the upper part (or the only part, see Splitpoint, page 97) of the score is to be shown in a bass or treble clef.

Select **Change Clef** from the **Scores** menu, and the clef is changed from treble to bass or vice versa.

■ SPLITPOINT

This menu-item is used to check and set the splitpoint between which notes are shown in treble clef and which in bass clef.
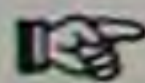
☞ If the splitpoint is set so that no notes fall below it, you will not have separate treble and bass clef scores.

Pull down the Scores menu. To the right of the word Splitpoint you can see the current splitpoint.

The Edit Pages

Select Splitpoint. A new picture overlays the lower part of the screen. There are two ways of setting a new splitpoint.

1. Click directly on one of the note lines in the picture on the left.

2. Click on the UP and DOWN boxes to the right of the picture, to move the splitpoint up/down one step.

When you are finished with the settings, click OK or press [Return] on the computer keyboard.

DISPLAY QUANTIZING, SYNCOPES AND OVERLAP

Notes are not an absolute language. There are several ways to write a score of a piece of music. Furthermore, a score is always quantized in one way or another, there is no way to write down an absolute realtime performance using notes, you always have to resort to deciding if the note is dotted or a triplet and so on. Furthermore, scoring music is very complicated. Score-Edit is a very able page, but you have to give it some instructions on how you want to see your notes on the screen.

■ SELECTING DISPLAY QUANTIZE VALUE

For the display quantizing procedures you must first select a quantize value. This is done either by clicking on one of the note symbols on the bottom of the screen (whole note to 1/64), or by pressing keys [1] to [7] on the computer keyboard.
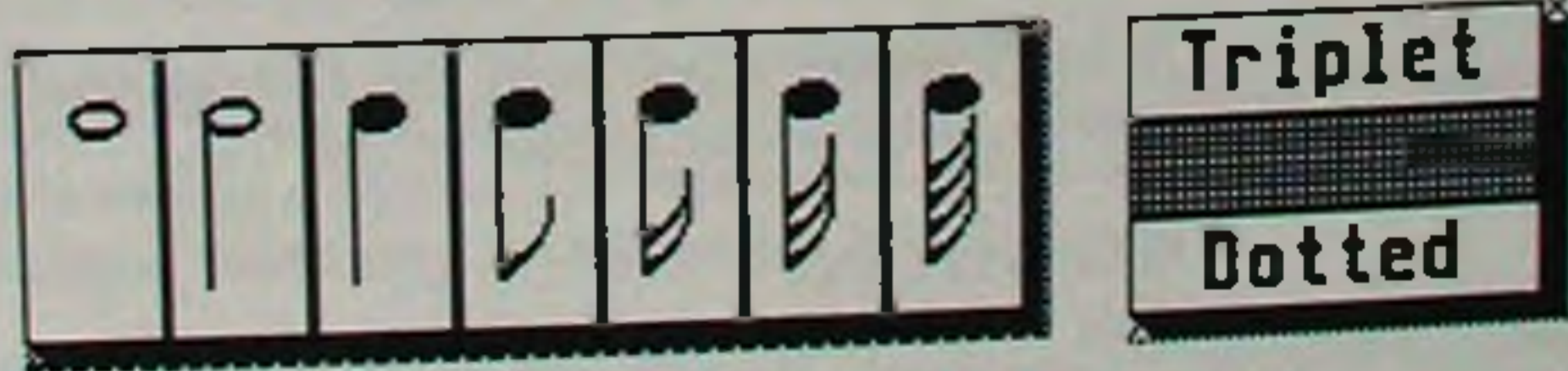
You can also select Display Quantizing to triplets of the selected value by clicking in the **Triplet** box or by pressing [T] on the computer keyboard.

You can select quantizing to dotted notes of the selected value by clicking on the **Dotted** box or by pressing [.] on the computer key-

board.

■ PAUSE QUANTIZE

This command is used to set how you want the display of rests to be quantized.

1. Select the desired quantize value (even triplets and dotted notes).

2. Select Pause Quantize from the Score menu.

■ NOTE QUANTIZE

This commands is used to set how you want the display of notes to be quantized.

1. Select the desired quantize value (even triplets and dotted notes).

Whole notes and half notes can not be used.

2. Select Note Quantize from the Score menu.

You can also select the Note Quantize from the computer keyboard, by holding [Alternate] and pressing keys [3] to [7] (for the respective values).

■ SYNCOPE

This flag can be set to On or Off. When set to on, syncopes are displayed normally. When set to Off they are displayed as tied notes.

■ NO OVERLAP

This is also a flag used to set if overlapping notes are shown as tied notes (Off) or not (On).

■ PRINT PATTERN

If you select this item or press [L] on the computer keyboard you are presented with a window where you can set up parameters for a hardcopy output of your score. Use the left and right mouse buttons to click in the select boxes and set the values.

You can select paper length (11, 12 or 16.5 inches), what parts of

The Edit Pages

the score you want printed (From/To Bar), and two types of dot matrix printers.

When you are ready, click on PRINT or press [Return] on the computer keyboard.

● PLAYING BACK A PATTERN

✓ PLAY

You can turn the playback function on and off by clicking in the box named PLAY, or by pressing [P] on the computer keyboard. Playback normally starts from the beginning of the Pattern, and is automatically looped. If you want to play back only a part of the Pattern you must form a **Range**, see page 101. To move playback to the beginning of the Pattern, press [*] on the computer keyboard.

● MOVING WITHIN THE PATTERN

The bars are numbered, just above the notes at the beginning of each bar. You can make the screen show the part of the Pattern you are interested in by using the box with (Fast) forward/ rewind symbols, the Position box on the left side of the screen, or by using the computer keyboard. There are several methods:

1 /1 /0
<< < > >>

1. Click on the Position box or press S on the computer keyboard and enter the Position you want to go to. Press [Return]. The value is always rounded of to the closest whole bar.

2. Each click on the Fast Forward/Rewind (>> and <<) symbols takes you four bars forward/backward.

3. Each click on the forward symbol (>) takes you one **page** forward. This means that the next whole bar that can't be fitted into the screen will be the first bar after the click.

4. Each click on the Rewind (<) symbol takes you one bar backwards.

5. If you click on any of the symbols and hold the mouse button, you will see the Position box bar number change rapidly. Use this function to move in very large steps in long Patterns.

6. Use the left and right arrows on the computer keyboard as a duplicate for the Fast Forward/Rewind symbols.

● WORKING WITH A RANGE

You can specify a Range, a part of a Pattern, to work with. The current Range is displayed as two positions to the right of the word **Range:** on the top right hand of the screen. **Range** on the Flags menu is used to switch between working with the Range, or working with the whole Pattern. The commands for forming a range are found on the Edit menu:

SETTING A RANGE

There are two ways to form a range:

■ SET RANGE

To use the menu command **Set Range** you must first select the area that you want to define as the range. To do this, just press and hold any mouse button with the pointer somewhere in the score. The vertical position isn't important, but the horizontal position will be the Start point of the range.

Drag the pointer to the right on the screen, and an area of the score will be enclosed in a rectangle. When you release the mouse button, the whole selected area turns black. The vertical position of the pointer when you released the mouse is the End position of the range.

If you didn't quite catch the part of the score you intended, just try again.

Once you are satisfied with the framed area, select Set Range from the Edit menu.

■ SET LEFT AND SET RIGHT

If you want to form a Range that is longer than what can be shown on the screen at one time, you must use these commands.

To specify a position that you want to use as a start or end point for the range, you must select a note that is at that position. Notes can be selected just by clicking on them. Once a note is selected you can step forward/backwards through all the notes on that clef using the up and down arrows on the computer keyboard or by clicking in the NEXT and LAST boxes in the lower right hand of the screen. More about this under the heading Editing a Note, page 103.
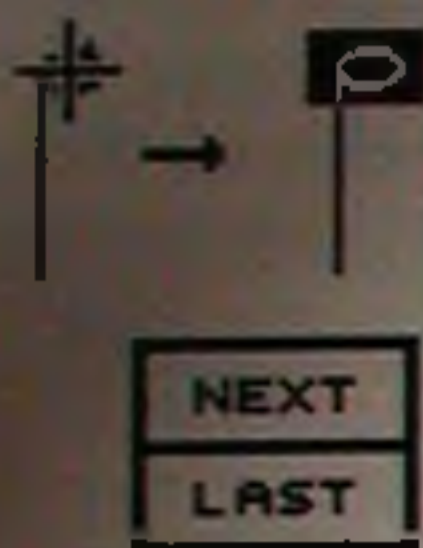
You can see what position the selected note is at in the Position Box above the transport control box.

If you want to use the position as the starting point of the range, select **Set Left** from the Edit menu.

If you want to use the position as the end point of the range, select **Set Right** from the Edit menu.

PLAYING BACK THE RANGE

It is automatically the Range only that is played back when you have the Range activated.

MOVING THE SCORE TO THE RANGE

If you press [(] on the computer keyboard the score is moved to the beginning of the range, and if you press [)] to the end of it. The range doesn't have to be active.

● EDITING A NOTE

If you want to change any of the values for a note in the score, you must first select it and then input new values using the mouse, the computer keyboard or via MIDI.

SELECTING A NOTE

To select a note, first step through the score, so that the note is visible on the screen. Click on the note once (the actual note, not the stem) and a small box is overlaid on it.
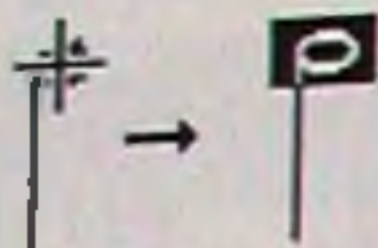
All the values for the selected note are shown in the Note Info boxes at the lower right corner of the screen.

RESTORE	NEXT	UP
NOTE INFO	LAST	
NOTE: F. 0_		
VELOC. : 91_		
LENGTH: 4___		
OFFVEL. : 127		
CHANNEL: 10		DOWN

STEPPING THROUGH THE NOTES

You can move to the next or the previous note in the score by clicking on the NEXT/LAST boxes in the Note Info area of the screen, or by using the up/down arrows on the computer keyboard. You can also use [Clr Home] to select the first/last note in the upper clef or [Shift] + [Clr Home] for the first/last note in the lower clef.
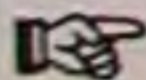
☞ You must first select a note to be able to step forward or backward.

HEAR EDITS

When you select a note during editing it is played back once if you have Hear Edits turned on (ticked). To switch this function on or off, click once on the box Hear Edits or press [H] on the computer keyboard.

√Hear Edits

The Edit Pages

CHANGING THE VALUES

Once a note is selected you can change its values in a number of ways. The current values are displayed in the Note Info boxes.

■ USING THE MOUSE AND COMPUTER KEYBOARD

You can select one of the four possible parameters in the list in two ways. The parameters are: NOTE (which note it is), LENGTH (the length of the note), VELOC (its attack velocity) OFFVEL (its release velocity) or its (MIDI)CHANNEL (the MIDI-channel value that is stored with the note, not necessarily the one it is played back on). Either you click on one of the boxes directly (in which case it turns black) or you press one of the computer keyboard keys [F2] to [F6].

You can change the value, either using the data fader to the right of the info boxes, or by using the [+] and [-] keys on the computer keyboard.

Once a note value is changed you must click on UPDATE, or press [U] on the computer keyboard to make the screen reflect the changes.
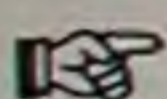
☞ VELOC is the normal attack velocity that most keyboards use. OFFVEL is the speed with which you release the key. This kind of velocity is implemented on very few keyboards. You don't have to worry about this value if your MIDI equipment isn't able to send or receive this kind of information.
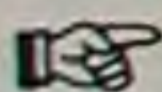
☞ Release velocity is not played back from Grid and Score edit.

■ VELOCITY BARS

The selected notes attack velocity (VELOC value) is displayed below the score as a small black bar. You can change the velocity directly by clicking and holding the mouse button somewhere in this "bargraph area" of the screen. Change the values by dragging the mouse vertically.

The Edit Pages

RESTORE

■ NOTE INFO RESTORE
There is a small RESTORE box in the NOTE INFO area that
will restore a selected note's values to the original if you click
on it.

MIDI-IN
√ Notes
√ Veloc.

■ VIA MIDI
New note and velocity values can be input via MIDI. First you
must select which type of event you want to input, either by
clicking in the MIDI IN box's **Notes** and **Velocity** boxes or by
pressing [N] or [V] on the computer keyboard. You can activate
both, one or the other or turn both off (in which case you won't
be able to change anything via MIDI).

Select the note you want to edit and press a key on your MIDI
keyboard (or other controller). The selected values are replaced
by the input, and the program automatically advances to the
next note. You can step through the notes this way by just press-
ing consecutive keys on your keyboard.

■ ABOUT INPUTTING NEW NOTE VALUES VIA MIDI
Make sure you have the right Note and Pause screen quantiza-
tion selected or things can get very confusing. As a rule you
should select a quantize value so that the screen is able to dis-
play notes and pauses of the smallest (shortest) type in the Pat-
tern.

The following rules apply to notes:
1. Notes may replace chords and vice versa. Think of the select-
ed note as an insertion point. If there is a chord there and you
press a single note on your keyboard you will wind up with a
single note (and vice versa).

2. The note value is kept. The note(s) at the selected position
will be replaced with notes of an identical value (1/8's with 1/
8's and son on). However, the new note will have the default
length for that note value (96 for fourths, 48 for eights and so
on).

● SETTING QUANTIZE VALUES

You can set Quantize values on the Score-Edit screen. These are then used for all the different types of Quantizing, but also for inserting notes and step programming. Since Quantizing in itself is done identically for the Note and Grid-Edit pages, it is described on page 113.
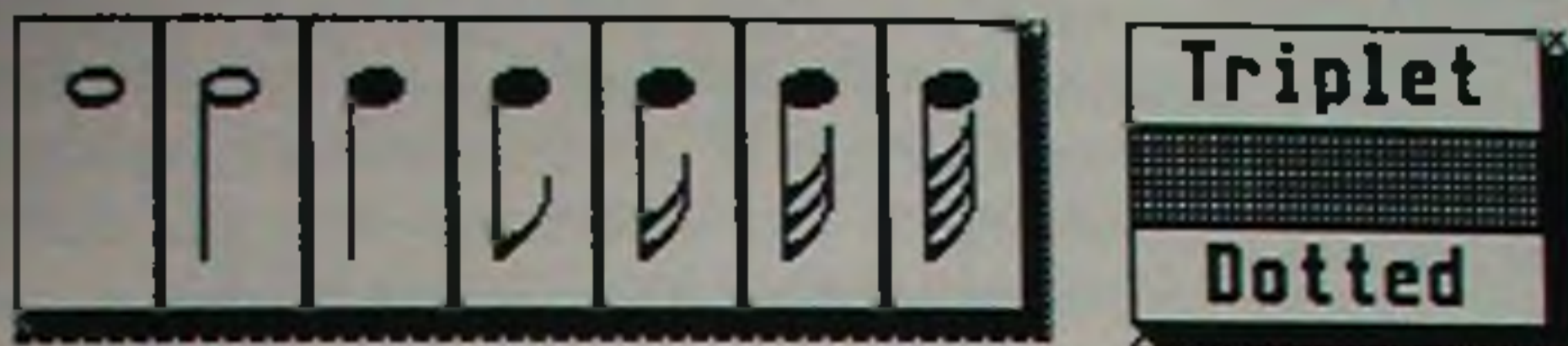
You can select one of the seven quantizing values ranging from whole notes (1) to sixtyfourth notes (64) by clicking directly on the note symbols below the score. You can also use keys [1] to [7] on the computer keyboard.

You can also select quantizing to triplets of the selected value by clicking in the Triplet box or by pressing [T] on the computer keyboard.

You can select quantizing to dotted notes of the selected value by clicking on the Dotted box or by pressing [.] on the computer keyboard.

● INSERTING NOTES, STEP PROGRAMMING AND USING THE CLIPBOARD

INSERTING A NOTE
Notes can be inserted into the score using the mouse.

■ WITHOUT AFFECTING THE OTHER NOTES
Select one of the quantize values. The inserted notes will all be of this quantize value until you change it.

Select a lowered or raised note (if you want to) by clicking in one of the boxes, or by pressing [#] or [B] on the computer keyboard.

✓ INSERT

Click once on INSERT or press [Insert] on the computer keyboard. If you are using both a bass and a treble clef, the one you are not within turns black while you are moving around in the score. This is because you have to know where your notes will be inserted (not in the black area).

Move the mouse into the score.

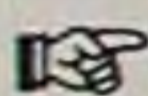The vertical position corresponds to the note values you are about to insert.

X e_2
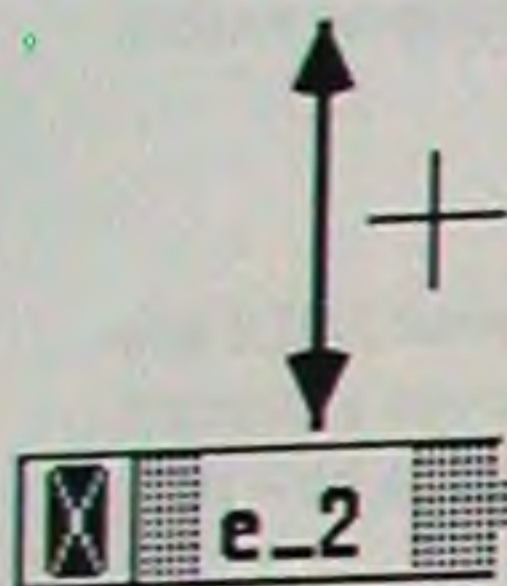
You can see this value in the upper left corner of the window, it changes when you move the mouse.
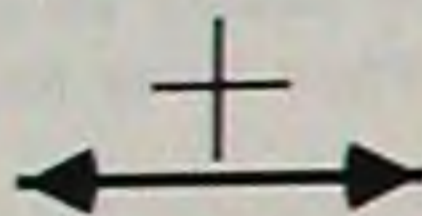
The horizontal position corresponds to where in the music the note will be inserted.

Click once on the left mouse to insert a note.

☞ When clicking, make sure the pointer (the tip of the arrow) is pointing at the note or pause where you want insertion to start. If you release the button pointing between two notes, the music will be inserted at the position of the earlier note.

You can move around in the Pattern using the forward/rewind symbols and the computer keyboard as usual.

You can switch between the different quantize values and select raised or lowered notes by clicking on the symbols or using the computer keyboard.

When you are through inserting notes, click on the right mouse button.

■ WHILE SHIFTING THE FOLLOWING NOTES

I.-Mode

If you click on the box I.-MODE or press [I] on the computer keyboard you activate and deactivate Insert Mode.
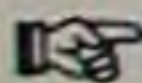
☞ In this mode all the notes after the one inserted will be moved one Quantize step forward in the Pattern.

Everything else is just as when inserting notes without I-mode.

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■ INSERTING PAUSES

1. If you Delete a note (see page 112) with **I-MODE** deactivated, the note deleted is replaced by a pause of the same length.

2. If you move into the score just as if you were to insert a note, but press [0] on the computer keyboard instead of clicking with the mouse this has the same effect as inserting a pause with **I-MODE activated**.

STEP PROGRAMMING

This is a special form of note insertion done from your MIDI keyboard. The big difference is that the program moves automatically one quantize step forward each time you input a new note (or chord).

If you want to use step programming as a way of making up a whole new Pattern, you must first create that Pattern using the Create command on the Main Screen.

INSERT
↓
STEP

Select step programming either by clicking on the **INSERT** box using the right mouse button, or by pressing [Control]+[Insert] on the computer keyboard.

The Position box automatically moves to the Position **one quantize step after the Position of the last note in the Pattern**. This means that notes can only be input after the last note in the Pattern.

To input note(s), play it (them) on your MIDI keyboard. The note(s) inserted will be of the quantize value (1/4, 1/8 and so on), and will have the velocity and pitch values coming in via MIDI.

The program automatically advances to the next step when you release the key(s).
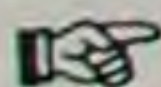
☞ You can input chords (notes that wind up at the same position) by pressing several keys at the same time. The program doesn't step forward until you release the last key.

To input rests, press [0] on the computer keyboard.

The Edit Pages

You can switch between the different quantize values by clicking on the symbols or by using the computer keyboard.

If you press [Backspace] on the computer keyboard , the last inputted note or chord will be deleted.
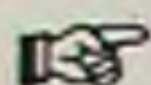
☞ Give the program a chance to store the note(s) and update the screen before you input new notes. Don't expect to use step programming as a pseudo realtime input.

USING THE CLIPBOARD
You can put a part of the score in to a buffer called the clipboard. This can later be added to the score or inserted into it.

■ PUTTING NOTES INTO THE CLIPBOARD
1. Select a part of the score by dragging a box around the notes, as when forming a range. The start and the end position form two corners of a rectangle. The notes inside the box are the ones that will be put on the clipboard. The left and right sides of the rectangle are the start and end positions of the selected music.
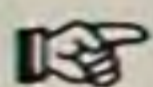
☞ You can select only some of the notes in the area by limiting the height of the enclosing box. It is for example possible to extract all F2's over one bar by making up a long but thin box covering the F2's only, over one bar.

This whole area can then be dragged onto the clipboard symbol and released there.
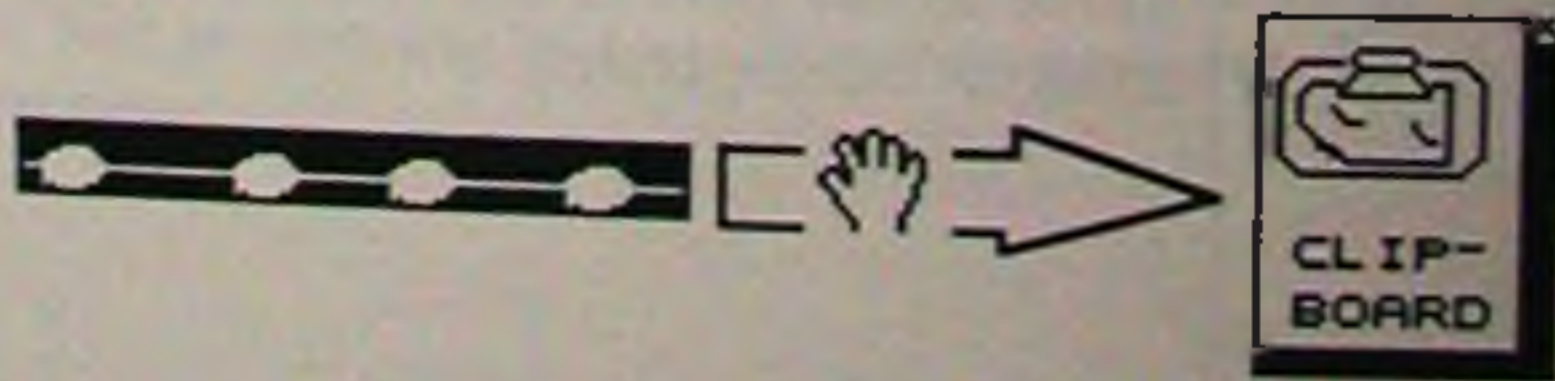
If there is already something on the clipboard you will be given

a warning about this and the option of replacing the current clipboard contents with the new.

2. If you need to put a part of the score on the clipboard that is longer than two bars, first find two notes that for the start an end point of the desired range.

Drag the note at the **start** point to the clipboard using the left mouse button.

Drag the note at the **end** point to the clipboard using the right mouse button.

■ **ADDING THE CLIPBOARD TO THE SCORE**
The music on the clipboard can be added to the displayed music. In this way a previously extracted line can easily be added to the existing music on the score.

Make sure the screen displays the part of the score to which you want to add the contents of the clipboard.

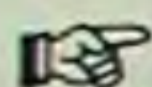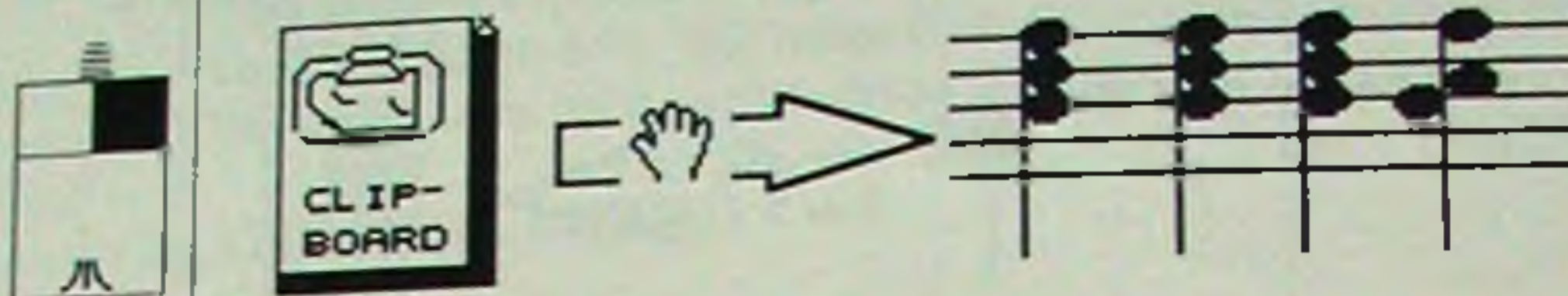Drag the CLIPBOARD symbol using the left mouse button and release it in the score.
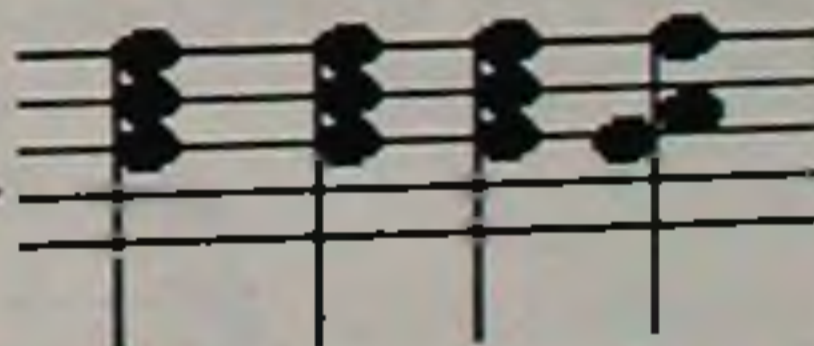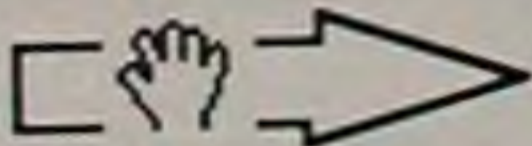
■ **REPLACING THE SCORE WITH THE CLIPBOARD**

The music on the clipboard can replace the existing music.

Move to the part of the score where you want to add the contents of the clipboard.

Drag the CLIPBOARD symbol using the right mouse button and release it in the score.

☞ When releasing, make sure the pointer (the tip of the arrow) is pointing at the note where you want insertion to start. If you release the button pointing between two notes, the music will be inserted at the position of the earlier note.
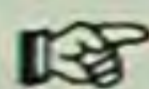
☞ If you have I-MODE activated, all the notes after the insertion point will be moved on, to make room for the inserted music.
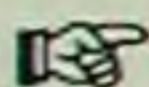
☞ The contents of the clipboard remains even if you exit Score-Edit and select another Pattern. If you enter Score-Edit again you can put the contents of the clipboard into the new Pattern.

## ● COPYING AND MOVING NOTES DIRECTLY

You can also copy notes using a similar technique as when using the clipboard.

1. Select a note, or form a Range graphically as when putting notes on the clipboard.

2. Hold any [Shift] key on the computer keyboard, while dragging the range or note to the part of the score where you want it.

If you hold the [Control] key on the computer keyboard while dragging, the note(s) are moved rather than copied. You can think of this as copying and erasing the note(s) at the old position in one go.

The Edit Pages

● DELETING NOTES

1. Select a note and drag it onto the TRASH symbol and release it there or press [Delete] on the computer keyboard.
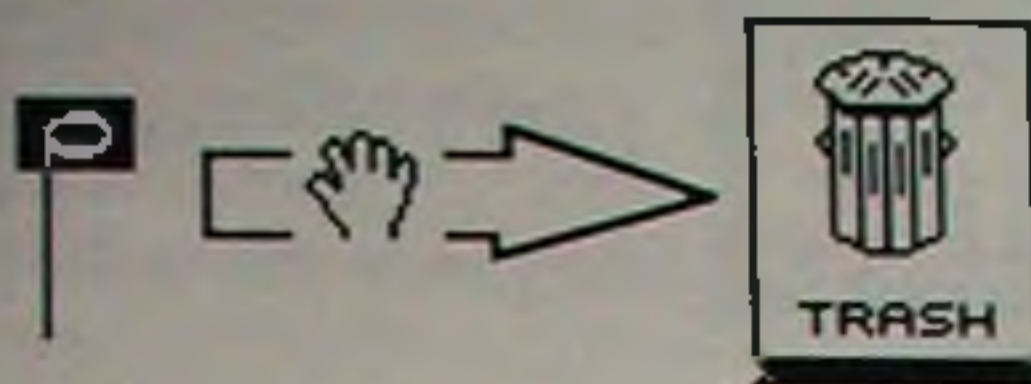
2. Select a part of the score as when putting notes on the clipboard (page 109).
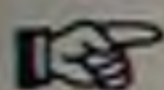
☞ You can select only some of the notes in the area by limiting the height of the enclosing box. It is for example possible to extract all G3's over two bars by making up a long but thin box covering the G3's only, over two bars.

This whole area can then be dragged onto the TRASH symbol and released there, or you can use the [Delete] key on the computer keyboard to delete the notes.
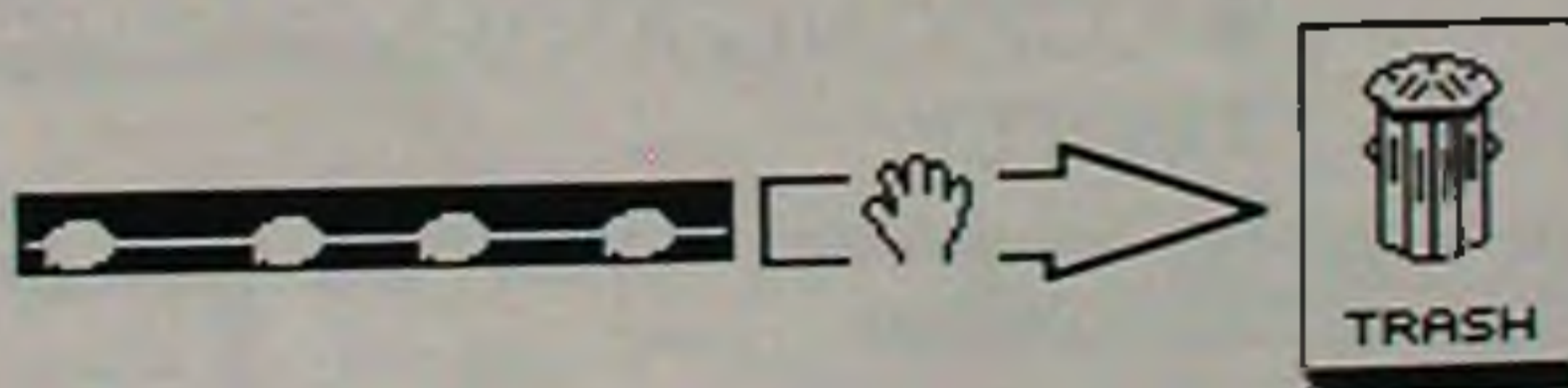
● RESTORE

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 Score-Edit.

● CANCEL

CANCEL

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

● OK

O K

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

The Edit Pages

GRID AND SCORE-EDIT MENUS

This section explains the parts of the menus that are equal to Grid and Score-Edit. The items that differ or only exist on one or the other have been explained in the relevant section.
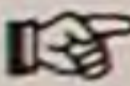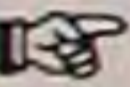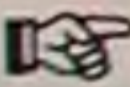
THE DESK MENU

■ EDIT-INFO
Selecting this item gives you some information about the Pattern you are working with. It will also redraw the screen completely, which is important if any menus have been left hanging, or if the screen looks "unusual" in any way.

THE FUNCTIONS MENU
This menu allows for six types of quantizing and a few other editing commands. You can also access a special type of quantization called Iterative Quantize from the Grid-Edit page.

☞ If no range is active the whole Pattern will be affected. If a range is active only this part of the Pattern will be affected.

☞ For the Grid-Edit page, the Micro Range that you can set graphically directly in the grid overrides the range visible in the menu bar. For Score-Edit , dragging a box over the notes also sets a Micro Range that overrides the range visible in the menu bar.

☞ Quantization is done to the Quantize value set on the page.

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

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

The Edit Pages

■ NOTE-ON /OFF QUANTIZE

This method quantizes the start of the notes, and sets them all to the same length (as with Length-Size quantizing).

■ LENGTH-SIZE

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

■ FIXED LENGTH

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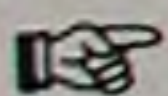
■ MAX LENGTH

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

■ MIN LENGTH

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

■ ITERATIVE QUANTIZE

This type of quantization can only be done from Grid-Edit.

This kind of quantize moves the notes in steps towards the closest Quantize value. To achieve perfect quantization you may therefore have to select Iterative Quantize several times. Iterative Quantize moves the whole note, without affecting its length.

Click on the little Q symbol above the right side of the Grid.

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

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

■ REVERSE
Reverses the order of the notes. Reversing twice naturally restores the Pattern to its original order.

■ FILL
Fills the Pattern (or range) with notes. The notes will all have the same note and velocity values, they will be spread out by the quantization value (for example, a setting of 1/4 fills the Pattern with four notes per bar), and they will all have the length set with the Quantization value.

■ FIXED NOTE
This changes the note value of all the notes in the Pattern (or Range) to the same value. They all become the same note as the note selected. Their Velocity and Length values are kept intact.

■ LOGICAL EDIT
is described separately on page 118.

■ DELETE/KEEP
Selecting this item from the menu gives you two options:

1. You can keep the note selected, and erase all others.

2. You can delete the note selected, and keep all others.

Click the option you wish, or Cancel.

■ DYNAMIC VELOCITY
This function is used to create crescendi and diminuendi. This is done by making velocity values in/decrease from one amount to another.
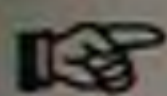
Select Dynamic Velocity from the functions menu. A small window appears where you can set Start and End velocity values.

The Edit Pages

Use the left and right mouse buttons to set the right values and then click OK.

The velocity values of the notes in the Pattern (or the Range) will be replaced with new values that perform the dynamic change.
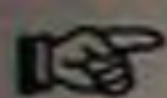
☞ The last note of the Pattern or the selected note is not affected.

☞ This function only has an effect with velocity sensitive synths and sounds.

THE EDIT MENU

The first three items and the last on this menu are described in the Grid and Score-Edit chapters.

■ RANGE-DELETE

This command erases all notes within the range, whether it is activated or not.

■ VEL./TRNP

This function lets you add a certain (positive or negative) number to all note or/and velocity values. This is of course used to raise/lower the volume and to transpose notes.

Select Vel./Trnp from the functions menu. A small window appears where you can set Velocity and Transpose values. Use the left and right mouse buttons to set the right values and then click OK.

The values of the Pattern (or the Range) will be replaced with new values.
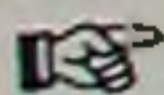
☞ The velocity function only has an effect with velocity sensitive synths and sounds.

THE FLAGS MENU

As on the Main Screen, the Flags menu holds a few parameters that you can set to On (tick) or Off (no tick).

■ BEEP

This parameter turns both the Monitor beep and the MIDI-click On or Off.

The Edit Pages

■ RANGE
This activates/deactivates the Range.

■ ALL-TRACKS
With this parameter set to on, all Tracks are played back from the Edit pages. When set to off, only the Track you are editing is played back.

■ EVENT PLAY
This turns On and Off the playback of "events" such as those displayed on the Event Edit page.

THE SCORES MENU
All items but one on this menu is described in the chapter Score-Edit, page 97.

■ SWAP EDIT PAGE
This allows you to move freely between the Grid and Score-Edit pages without going via the Main Screen. This can also be achieved by pressing [/] on the computer keyboard.