OctaMED V4 Manual

QUICK CONTENTS GUIDE:

IMPORTANT NOTICE FROM THE COPYRIGHT OWNER

A MESSAGE FROM THE MANUAL EDITOR:

A few years ago I came across a pd version of MED (Music EDitor). I was a bit perplexed by MED's rows and columns of numbers. Previously I had used music programs where the screen displays an image of a sheet music score and you use the mouse to pick up notes and paste them on the staff note by note. So MED notation just did not look like music.

I soon discovered this was a very special program. Once I began to understand its basic principles, MED was a much easier and more direct method of entering and composing music than programs I had used in the past.
More important, it offered features to enhance the creation of subtle and sophisticated music.

Since then, MED has gone through several revisions, and has now evolved into OctaMED-Pro. While doing so it has become one of the best music software tools for the Amiga, and is arguably one of the best software values on any computer.

A SHORT HISTORY OF OCTAMED-PRO:

In the early days of the Amiga, programmers wanted a fast, convenient way to write music for games and demos. SoundTracker was written in response to this need. It was easier to use than writing assembly code and it generated music in a format easily integrated into programs. SoundTracker, and the many clones
that followed, soon became the music standard for Amiga software designers.
As a result, most Amiga games and virtually all demo programs had their music written with SoundTrackers.

1 Unfortunately, like far too many Amiga utilities, Trackers required more patience than most of us have. Although composing music was not especially difficult, they often crashed, seldom came with instructions, could not use standard IFF sound files, and disliked multi-tasking. In spite of these problems, Trackers became increasingly popular, a testament to their usefulness.

Recognizing the value of SoundTracker, Teijo Kinnunen began designing an improved program. The first version, MED (Music EDitor), appeared in the Autumn of 1989. Teijo improved this version with new program code and, in April of 1990, he released MED Version 2.00.
In addition to much greater stability, MED had many other enhancements. Perhaps most important was support for MIDI. MED gained a reputation as a well-behaved piece of music software. Virtually every Amiga publication on both sides of the Atlantic has reviewed and praised MED.

In 1991 after being persuaded by Ray the original proprietor of Amiganuts,(Ray passed Amiganuts to Mark,to concentrate on budget progs), Teijo released OctaMED, with increased power and versatility, including many new tools such as the GRAPHIC NOTATION EDITOR,as suggested by Ray,also the SAMPLE EDITOR, and the SYNTHETIC SOUND EDITOR. The most signifiant change, and the source of the new name, was the Split Channel Mode. This new mode let Amiga play eight sounds at the same time, breaking out of the four voice limitation of the hardware design and With this release of OctaMED-Pro, a number of new features have been added and previous ones refined to make OctaMED-Pro an even more seamless and comprehensive sound and music system.

FLOPPY DISK USE:

You should make a copy of your original program disk. Use the copy as your work disk and the original for making new copies.If you're not sure how to copy a disk, refer to the manual that came with your Amiga.
The OctaMED-Pro disk is bootable. Put the disk in the drive, start your computer and OctaMED-Pro will load automatically,this takes some time due to loading of copyright notices/decrunching etc,however,you can
speed things up by following the instructions on the following page.

HARD DISK INSTALLATION:

Decide where you want OctaMED-Pro on your hard disk. Create a directory or "drawer" there called OctaMED. Put the OctaMED-Pro floppy disk in DF0:. Then open a CLI window and enter the following for each file name listed below:

```
COPY DF0: TO DH1:Music/OctaMED file name
          |     |          |
          |     |          Each of the files
          |     |          listed below.
 The disk or      |
 partition name.  The path description,to OctaMED-Pro dir.
```

Copy to the OctaMED directory: (files marked * MUST be copied)

```
Demos (dir)          Some demonstration songs
Docs (dir)           Documents
Programmers (dir)    Information for programmers
Demos.info           Demo directory icon
Docs.info            Doc directory icon
Programmers.info     Programmers directory icon
OctaMED              * The main program
OctaMEDPlayer          The stand-alone player program
RAY.B-F.gfx1         * Graphics data } or WHATEVER.gfx1 etc
RAY.B-F.gfx1         * Graphics data } name depends
RAY.B-F.gfx2         * Graphics data } on where you
RAY.B-F.gfx3         * Graphics data } purchased
RAY.B-F.gfx7         * Graphics data } OctaMED from.
OctaMEDPlayer          The stand-alone song player
OctaMED.info         * OctaMED-Pro's icon file
OctaMEDPlayer.info   OctaMEDPlayer's icon file
```

You need only the files marked with an asterisk to run the program. You may want to move OctaMEDPlayer into your "C:" directory so you can easily run it from the CLI without having to type out the path description.

ABOUT THE MANUAL:

The more control a program offers, the more you must study and learn to use it effectively. OctaMED-Pro provides the ability to control virtually every aspect of your composition. As a result, it has what may seem at first a bewildering number of controls and screen gadgets.

The aim of this manual is to provide you with the information you need to use all the power of OctaMED-Pro. It is a reference book, rather than a tutorial. It groups explanations of controls by the screens on which they appear.

If you have used a SoundTracker style of music composer, the BLOCK EDITOR will be familiar to you. However, because OctaMED-Pro offers so many new features and unique techniques, reading this manual is necessary to use the program effectively.

A NOTE TO NEW USERS:

If you are new to Tracker composers, first read the BLOCK EDITOR instructions. The BLOCK EDITOR is the heart of the program, where you enter music and will do most of the work of creating music.

Begin by playing and looking at the demonstration song. Next you might enter some music from a sheet music score. After you have this experience,you will have gained enough facility to begin experimenting with your own music.

AN OVERVIEW OF OCTAMED-PRO EDITORS AND PANELS:

OctaMED-Pro uses a number of screens to perform various tasks and 3 areas are always visible regardless of which screen is in use:

STATUS BAR offers information and controls you frequently need.
The MENU PANEL opens the editors and control panels.
The TIMER provides a way to time songs.

Among the screens, there are five separate editors:

BLOCK EDITOR Composing, entering and editing music.
GRAPHIC NOTATION EDITOR A traditional notation music editor.
SAMPLE EDITOR Sample and modify sampled instruments.
SYNTHETIC SOUND EDITOR Designing synthetic waveform sounds.
SAMPLE LIST EDITOR To edit and organize instrument files.

Also,there are ten panels for composing songs,controlling, instruments, and file handling operations.

FILES PANEL Loads/saves songs and instruments in various formats.
PLAY PANEL Controls tempo, volume, filters, and sequence lists.
INSTR PANEL Loads,transposes,adjusts various types of sound.
BLOCK PANEL Cuts,pastes,opies,deletes blocks and song parts.
EDIT PANEL Controls track sound and note editing.

MISC PANEL Clears and quits the program, and sets preferences.
VOL PANEL Sets the master, and proportional volume for tracks.
MIDI PANEL Controls MIDI instruments/writes maps/MIDI messages.
TRANS PANEL Adjusts pitch song, block, track or instrument.
RANGE PANEL Complex cutting and editing of large areas of a song.

In addition to these, there are four special purpose editors:

Programmable Input Key Editor on the EDIT PANEL
Play Sequence List Editor on the PLAY PANEL MIDI
Map Editor on the MIDI PANEL MIDI
Message Editor on the MIDI PANEL
Waveform Sequence Editor on the SYNTHETIC SOUND EDITOR

OCTAMED-PRO SCREEN OBJECTS:

You select buttons by putting the mouse pointer on them and clicking (usually) with the left mouse button. There are two types of buttons. Some perform an immediate action one time. Others select settings that remain in effect until you reset them. The second type of button changes color when selected.

PROPORTIONAL GADGETS look like slider controls. There are two methods of adjusting these. You may drag the slide indicator to the desired setting or click the directional arrows that you will usually find associated with the gadget.

STRING GADGETS require that you click inside them to mae them active before you can enter or alter the text.

NUMERICAL STRING GADGETS work in a similar way, but they may also have plus and minus buttons that you can use as an alternative way to increase or decrease the numbers in the gadget. Another type of numerical gadget you change by clicking and holding the left mouse while entering a single key stroke from the keyboard.
There are also NUMERIC GADGETS on the STATUS BAR that you can change by clicking the numbers themselves in the gadget. For example, in the case of a three digit number, clicking on the right digit with the left mouse button increases the number by one,the right mouse button decreases it by one. Clicking the second digit changes the number by ten, while clicking the left-most digit changes it by a hundred.

LEGAL NOTICE:

You may contact at the following address:

If you wish to contact the publisher and joint Copyright owner of OctaMED,then write enclosing an s.a.e. or IRC coupon TO:

R.Burt-Frost. C/O., RBF SOFTWARE
169,Dale Valley Road,Hollybrook,Southampton. SO1 6QX. England

CREDITS:

Teijo Kinnunen Programming, design and graphics.
Ray Burt-Frost Ideas,support and continual suggestions.
Larry McIntire This manual.
Marcus Pol Intro graphics.
Izrael Simila OctaMED and Player icons.
Frederic Bouquerel The title bar OctaMED-Pro logo.
Steve Hayes Electronic Arts IFF-loader (Fish disk #64).
COMMODORE For a GREAT electronic masterpiece !

You may contact the author of OctaMED-Pro at the following address:

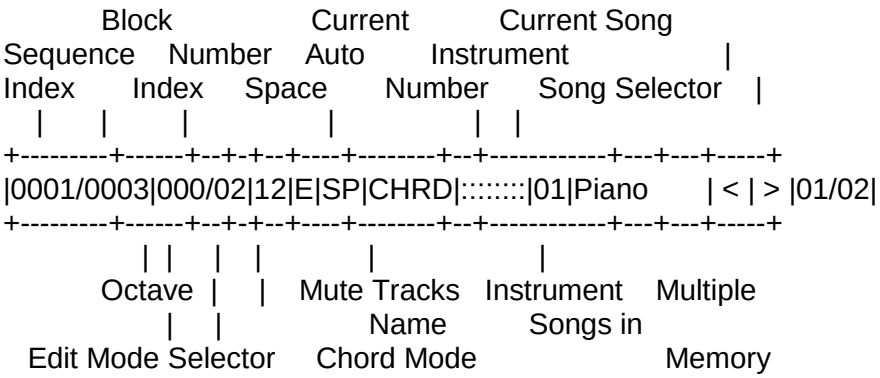
Teijo Kinnunen
Oksantie 19
SF-86300
OULAINEN, FINLAND

Please include the version number of your OctaMED Disk. If you need a response to your letter, please enclose an I.R.Coupon.
Please be prepared for a VERY long response time!
If you contact RBF SOFTWARE,a reply will be much quicker.

THE STATUS BAR, MENU PANEL, MESSAGE LINE, TIMER AND TITLE BAR:

THE STATUS BAR:

The STATUS BAR is the strip of buttons between the control panels and the BLOCK EDITOR. It displays information about how many blocks are in the song and the number of the block currently in the BLOCK EDITOR. It also controls some editing features and provides a way of selecting new current blocks, songs and instruments.



The Sequence Index consists of two four-digit numbers which show the position of the current block in the Playing Sequence List and the total number of entries in the Play Sequence List. The left number of the Sequence Index is the position of the current entry in the Play Sequence List. Numbers begin with 0001. If the PLAY PANEL is open you can see the Play Sequence List entries. If you click the left mouse button with the mouse cursor on the rightmost digit, the Play Sequence List will scroll down by one. The right mouse button scrolls it up. This does not change the current block in the BLOCK EDITOR. If you click the second or third digits, the changes are by 10 and 100 respectively.
The second number of the Sequence Index is the number of entries in the Play Sequence List. Because a song may use a block many times, the number of entries is usually greater than the number of blocks. If, for example, you use a block three times in a song, the Play Sequence List would show them as three separate entries. There can be as many as 256 block numbers on the Play Sequence List.

The number on the left of the Block Number Index displays the number of the current block. It also provides a quick way to bring an existing block into the BLOCK EDITOR. Clicking the rightmost digit of the number with the left or right mouse button brings the next or previous block of the song into the BLOCK EDITOR. If there are more than ten blocks in the song, a click on the second digit adds 10 to the number and brings that block into the editor.

The number on the right side of the Block Number Index shows the number of the last block. There can be up to 99 blocks in a song. Because block numbering begins with 00, the number of the last block is always one less than the total number of blocks.

OCTAVES:

Keyboard Octave Numbers indicate which two octaves of the current instrument are available for playing, or inserting into the BLOCK EDITOR, from the Amiga keyboard. The lesser number is the octave number of the bottom row of keys, while the second number is the higher octave and upper row of keys. If you click the number with the left mouse button, the pitch of the instrument raises an octave. Continued clicking on the button loops through the octaves. Although you may select any octave with this button, the number of octaves is a property of the instrument. Because of this, all octaves may not play with all instruments.

For a more detailed description of the keyboard layout read the instruction for the BLOCK EDITOR.

EDIT MODE SPACE AND CHORD FUNCTIONS:

E (Edit Mode), when active, is highlighted in black. If you play notes on the Amiga keyboard with the Edit Mode selected, OctaMED-Pro inserts them into the song at the Edit Cursor position.

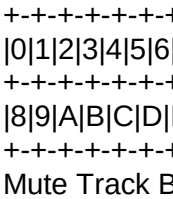
```
Line# | Track -    Track -
+-----+---------------
| 000 | A#1 10000  D#3 50000
| 001 |  |   | |
       |   +--+
       |    |
       |    If the Edit Cursor is here,
       |    you can enter control numbers
       |    and arguments from the keyboard.
       |
If the Edit Cursor is here, you can
enter notes and instruments
from the keyboard.
```

SP (Space) when active, inserts extra spaces between notes as you enter them from the keyboard. You must have one of the ADV. (advance) buttons on the EDIT PANEL selected for this to work. Because you cannot place the Edit Bar on the lines between notes while SP is active, it is usually best to select it when composing or entering music, and deactivate it while editing.

CHRD (Chord) turns the chord entering mode on and off. You can also use the CHRD function for MIDI instruments. Instructions for entering chords are in the RANGE PANEL section.

MUTING TRACKS:

While editing, it is often useful to mute some tracks while listening to others. You may selectively mute tracks by clicking the small Mute Track buttons on the STATUS BAR. The sixteen rectangles represent the sixteen possible tracks. When a rectangle is black, the track it represents is on. When it is in raised relief, the track is muted.



Mute Track Buttons

You may also toggle tracks off and on by clicking inside the main edit area of the track you want to affect in the BLOCK EDITOR. There are buttons on the RANGE and EDIT PANELS that you may use for the same purpose. Also, the default map for the numeric keypad will mute the tracks.

THE CURRENT INSTRUMENT:

Instrument Number is the number of the current instrument. The current instrument is the one you can play or enter from the keyboard. You can change the current instrument to another instrument in memory by clicking the instrument number with the left or right mouse button. The maximum number of instruments for a song is 63. Instrument positions are numbered from 01 to 1V.

Instrument Name is the file name of the current instrument.

MULTIPLE SONGS:

OctaMED-Pro can load and save many songs together as one Multi-Module file.

Song Selector selects another song from the Multi-Module when there are multiple songs in memory. Clicking the right arrow brings the next song into the edit area. If there is only one song, or the current song is the last song, OctaMED-Pro will offer to add a new song.

If you answer "Y" to the MESSAGE LINE prompt, OctaMED-Pro creates a new, empty song. You can add several new, empty songs and avoid the prompt by holding Shift while clicking the right Song Selector arrow.

If there are multiple songs in memory,you can move among them with the arrow buttons. If the last song is current, you can delete it by pressing the left arrow while holding the Shift key. OctaMED-Pro will ask for confirmation before deleting it.

The Current Song gadget displays the number of the current song.

Multiple Songs in Memory indicates how many songs are currently in memory. OctaMED-Pro can maintain up to 99 songs if your computer has enough memory to accommodate them. Multiple songs can be extremely useful when composing. You can design and test sections of a composition in one song and then cut and paste them to another. You can also instruct OctaMEDPlayer to play songs selectively from a multi-module. There is, however, one restriction: all songs must share the same set of instruments. OctaMED-Pro can automatically remap instruments when loading a new song.For example, if there is a song in memory and you click the right arrow gadget, the MESSAGE LINE will ask if you want to "Add a new song (Y/N)?".

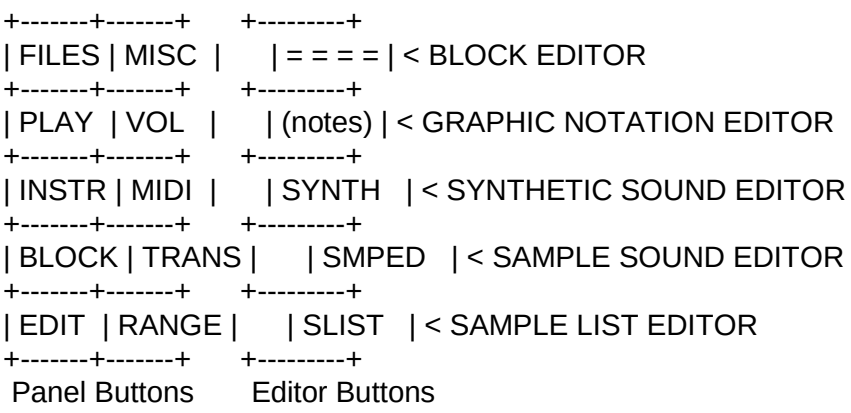
If you answer "Y", OctaMED-Pro will add an empty one-block song. If you then load a song into that song position, the MESSAGE LINE will ask, "Remap instrument (Y/N)?".If you reply "N", OctaMED-Pro flushes all the previous instruments from memory, and loads the new instruments in the positions where they were saved in the new song.

A "Y" reply will cause the new instruments to load into empty instrument positions and preserves the instruments from the first song. Then, OctaMED-Pro will change the instrument numbers of the new song to the remapped positions in the instrument list.

When you clear a song or load a new one, if there are unused instruments in memory, OctaMED-Pro offers to flush them from memory.You can save all the songs in memory together as a single Multi-Module. Select MOD0 or MOD1 from the FILE PANEL SAVE: buttons and answer "N" to the "Save only current song" prompt. OctaMED-Pro does not save instruments in the Multi-Module that are unused.The advantage of using Multi-Modules is that there is no duplication of instruments and there is no wait for songs to load. The disadvantage is they monopolize more memory.

MENU PANEL:

From this panel you can select the various control panels and editors.



THE TIMER:

The TIMER is always available. It is in the upper left corner of the screen. Sometimes the TITLE BAR hides it, but you can toggle it to the front or back by clicking the right mouse button anywhere on the screen.

It is occasionally useful to know the length of a song or to know when a certain passage in a song begins or ends. Without any action on your part the TIMER will reset to 00:00 and start timing when a song begins to play. You may use STOP and CONT.SONG on the PLAY PANEL or use keyboard equivalents (Space Bar and Shift-Space Bar) any time and as often as necessary without losing the elapsed time. Clicking on the TIMER will reset it.

To time a section of a song, play to the beginning of the section. Then stop the song with the Space Bar. Reset the timer by clicking on it. Click CONT.SONG on the PLAY PANEL. Stop the song when it arrives at the end of the section. The TIMER will now indicate the length of the section in minutes and seconds.

THE MESSAGE LINE:

At the top left of the screen, OctaMED-Pro displays messages, reports errors, or asks you to make choices when necessary. Most of these choices require entering "Y" or "N" from the keyboard.

THE TITLE BAR:

You can select the window TITLE BAR by clicking it with the left mouse button. If you use the right mouse button, you can toggle it off and on by clicking anywhere. When the TITLE BAR is visible OctaMED-Pro turns off the BLOCK EDITOR scrolling and the graphic V.U. meters to allow the computer's processor to concentrate on playing the music. This can be useful in certain tasks that require maximum CPU performance.

FILES PANEL:

From the FILES PANEL you can load, save, and delete songs, instruments, MIDI Maps, and MIDI Messages. This is where you choose the format for saving the song and the option of saving an icon and additional information with song files.

THE REQUESTER:

After you open the FILES PANEL a file requester fills the lower two-thirds of the screen. At the top of the requester is a string gadget that gives you information about the capacity of the disk you are looking at.

On the right side of the requester is a list of the disk drives, devices, and assignments. The left side displays the contents of the current directory. The DIR: string gadget shows the path description to the current directory. When you first start OctaMED-Pro the FILE: string gadget will be blank, but it will display the file names as you select them.

If either list is too long for you to see all the entries, there are up and down arrow buttons on the right of each list which scroll the lists. You can also drag the proportional gadgets above the arrows to scroll very long lists more quickly.

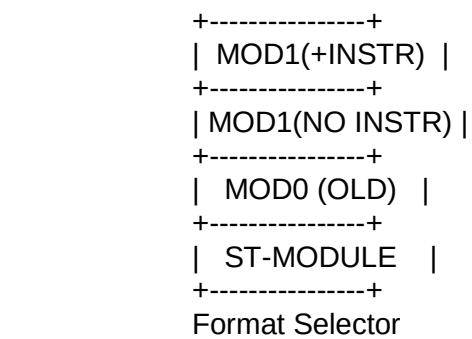
The list on the right side never changes. Use this list to select the drive or assigned directory you want to work with. To select an item from either side of the requester, click it with the left mouse. When you select a drive or directory, the requester on the left side will display its contents.

If you open a drive from the right list, or a directory from either list, the path description is updated in the DIR: string gadget with the new path information.

If you select a sub-directory, the left list will display a list of its contents. At the top of the list will be a "(dir)/Parent Dir" item. Click this to move one level up the path description. After you select a file name, that name will appear in the FILE: string gadget and is the current file name. The FILE PANEL buttons use this file name for load, save, and delete operations.

SAVE FORMAT:

Under this heading are four buttons which allow you to choose the format of the saved song. The format you select will depend on how you intend to use the song. You may Use OctaMED-Pro to convert file formats by loading songs in one format and saving them in another.



Format Selector

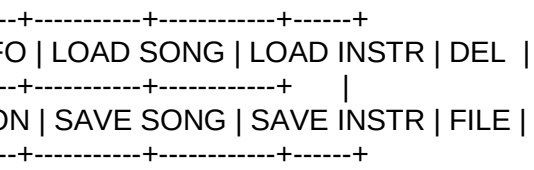
MOD1(+INSTR) is a new OctaMED-Pro song format. You must use it for songs that use the full MIDI note range and two-number note commands. It produces the same type of file as the MOD1(NO INSTR) format, but it saves the song's instruments in the song file. This is a good selection if you want to use the song with OctaMEDPlayer on demo disks. The files load quickly, and it avoids any problems withlocatinginstruments.
MOD1(NO INSTR) saves songs with only the instruments' names. Then,when you load a song, OctaMED-Pro looks for the instruments in the current directory. If they are not there, OctaMED-Pro will search for them using the MED_Paths file. If the instruments are found, they are automatically loaded with the song. There are two advantages to this format: smaller song files because they do not include the instruments, and instruments on the disk are not duplicated for songs that use the same instruments.

MOD0 (OLD) is compatible with earlier versions of OctaMED and MED after version 2.13. It is similar to MOD1(+INSTR) and it saves multiple songs. If you are going to use the song in another program, this format is the most readily recognized. Files saved in this format are usually somewhat larger than MOD1(+INSTR) files.

ST-MODULE saves songs as Sound/Noise/ProTrackers compatible modules. This is the only choice for accessory programs that recognize only SoundTracker modules. However, this format does not support many advanced OctaMED-Pro features, the following information will be removed:

Instruments from 10-1V
Tracks 4-15
MIDI commands and capability
Block lines greater than 64
Screen color information
Relative volume settings
Transposition of instruments
Hold and decay commands
Synthetic and hybrid instrument support

After selecting a file format, enter the path and file name from the keyboard into the DIR: and FILE: string gadgets or use the requester and mouse to select the path and file name.



File Operation Buttons

SAVE SONG button will save the song using the name in the FILE: string gadget in the format you have chosen. If the file name you use already exists, the MESSAGE LINE at the top of the screen will ask if you want to overwrite the old file. Enter a "Y" from the keyboard and the new file will replace the old one. If you enter "N", the save process ends and no action is taken.

ICON button, when selected, instructs OctaMED-Pro to add an icon to the file when it saves a song. It will write OctaMEDPlayer as the default tool in the info. files.

INFO button when selected instructs OctaMED-Pro to save "extra" information, such as instrument names, screen colors, block names, and various text information. Otherwise OctaMED-Pro saves only what is essential to play the songs. The files are slightly shorter when you do not select INFO.

LOAD SONG will load the song shown in the FILE: gadget. Click the LOAD SONG button and OctaMED-Pro determines the type of file format and displays the version number of the program that saved the file on the MESSAGE LINE. The song will load and the MESSAGE LINE will display whatever text is in the TEXT string gadget on the TRANSPOSE PANEL. If OctaMED-Pro cannot identify the song format, the MESSAGE LINE will ask whether you want to try loading it as a ST-Song. Enter "Y" or "N".

Usually, when OctaMED-Pro loads a song, it also loads the song's instruments. If OctaMED-Pro cannot find an instrument, the MESSAGE LINE will ask if you wish to continue loading the song. To continue you must respond with "Y" for each instrument that OctaMED-Pro cannot find. OctaMED-Pro will load the instruments it can find and put the names of the instruments it cannot find in their proper numbered places. You must then locate and load appropriate instruments into these positions. Otherwise, the notes played by those instruments will be silent.

LOAD INSTR loads a sampled, synthetic, hybrid sound or MIDI instrument name into the instrument location displayed on the STATUS BAR. If an instrument already exists in that position, the new one will replace it. If the instrument is a sampled or synthetic sound, the MESSAGE LINE displays the size in bytes. When it is a synthetic sound, it will display the number of waveforms the sound uses.

SAVE INSTR saves the current instrument with the file name in the FILES: string gadget. If a file by that name exists, the MESSAGE LINE will ask for confirmation before it replaces the file. By default OctaMED-Pro saves sampled sounds in RAW format. If you want a sample saved as an IFF file, select the SAVE: IFF switch in SAMPLE EDITOR.

DEL FILE erases the file with the file name displayed in the FILES: string gadget from the disk after confirmation. THE FILE WILL BE PERMANENTLY ERASED FROM THE DISK!

MIDI SUPPORT FILES:

LOAD	MSG	MAP
SAVE	MSG	MAP

Message and Map Files

LOAD MSG loads MIDI Messages. The MESSAGE LINE will ask if you want to replace the current MIDI Message or allocate a new Message before it loads. You should read the MIDI PANEL section for a description of making and using MIDI Messages.

SAVE MSG saves the current MIDI Message in the MIDI PANEL as a separate file.OctaMED-Pro always includes MIDI Messages with saved songs,but you may want to save them as separate files you can load into other songs.

LOAD MAP loads MIDI Map files that define the input mapping of the MIDI keyboard. If you are using a MIDI you should read the MIDI PANEL section for a description of making and using these maps. You must create a MIDI Map use the MIDI as an input keyboard.

SAVE MAP saves the files that you create which describe MIDI Maps for keyboard input.

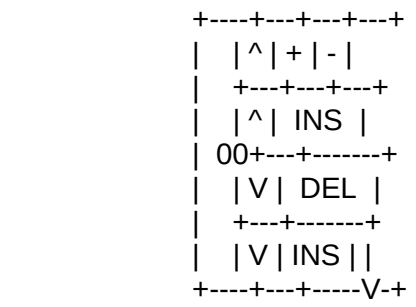
SPECIAL NOTES:

OctaMED-Pro will attempt to load ANY file you choose from the requester as the type of file indicated by the button you select. If,for example, the FILE: string gadget contains the name of an instrument and you click the LOAD SONG button, the MESSAGE LINE will ask if you want to try loading it as an old ST-Song.If you attempt to do this, OctaMED-Pro will probably lock-up and you will have to restart your computer.If you have the PowerPacker.library in your Libs: directory,OctaMED-Pro can load and unpack a song,instrument,and MED_Path files packed with PowerPacker.
More memory is required for this than loading files that are not packed.

PLAY PANEL:

From the PLAY PANEL you can play songs and blocks, adjust the tempo, select the graphic V.U. meters, and turn Amiga's audio filter off and on. The Play Sequence List Editor is on this panel as well.

THE PLAY SEQUENCE LIST EDITOR:



Editor Controls

OctaMED-Pro uses blocks as the basic unit to construct songs. Unless your song is very short or simple, there is usually more than one block. Also, in most music there are passages that a song repeats many times. If you write these sections as separate blocks, the Play Sequence List Editor lets you play them in any order, and as often as necessary to create a song.

The Play Sequence List Editor is on the left of the PLAY PANEL. It is a box containing the Play Sequence List, four arrows and five buttons. The Play Sequence List is simply a list of the block numbers arranged by the editor in the sequence you want them to play. When there is no song in memory the only entry on the list will be first block number, 00. It will be highlighted to indicate it is the current block in the sequence.

After you load or write a song with more than one block, use the editor to add, change, or delete block numbers in the Play Sequence List. If the Play Sequence List is too long for you to see all the entries, use the four arrow buttons on the right side of the box to scroll the list up and down, or jump to the top and bottom of the list.

The + and - buttons change the block number of the sequence step under the cursor.

INS inserts a new 00 block number in the Play Sequence List at the cursor position.

DEL deletes the current sequence step the cursor is on.

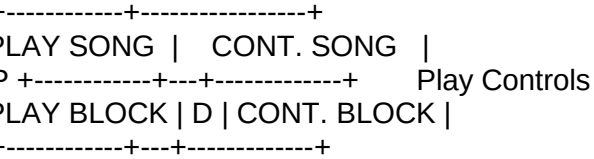
INS (with down arrow) inserts the current block number into the Play Sequence List at the cursor position.

A simple Play Sequence List might look like this:

03 play block 3
64 play block 64
03 play block 3 again
33 play block 33
.... etc.

You may have up to 256 block numbers on the Play Sequence List.

PLAYING SONGS AND BLOCKS:



All the play buttons play the song or block continuously until you select the STOP button or press the keyboard Space Bar.

PLAY SONG plays the song from the beginning (block 00, line 000).

CONT. SONG plays the song starting from the Edit Bar position.

PLAY BLOCK plays only the current block beginning on line 000.

D (next to PLAY BLOCK) starts playing the block when you enter a note from the keyboard.The Edit Mode button must be active for this to work.

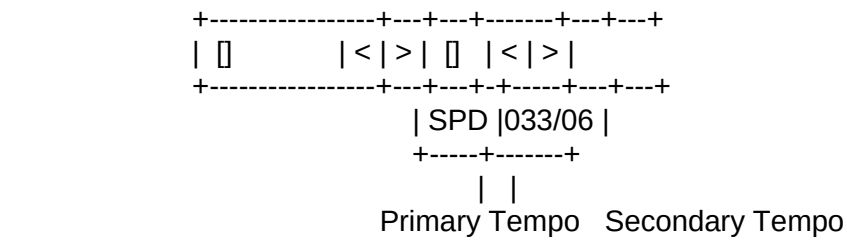
CONT. BLOCK plays the current block starting from the Edit Bar position.

STOP stops playing the song. Sometimes notes will continue to sound after you stop the song. Click STOP again, or press the Space Bar, to silence them.

PANIC STOP does not appear on the screen as a button. It is a way to stop a song that has demanded all the processor time and will not respond to the STOP button. If this happens, hold both mouse buttons down for about five or six seconds.

SETTING THE TEMPO:

OctaMED-Pro uses the Amiga's CIAB timer to set the tempo. The pulses from the timer trigger the OctaMED-Pro player interrupt.



There are two ways to adjust the speed at which a song plays: set the Primary Tempo or the Secondary Tempo. Make these adjustments by setting the proportional gadgets at the top of the panel. The left gadget controls the Primary Tempo, and the right gadget the Secondary Tempo.
SPDdisplays a numerical value for the Primary Tempo on the left, and the Secondary Tempo on the right.
On each timer pulse OctaMED-Pro processes commands. The Primary Tempo is the time between the pulses of the timer. You can adjust this time from 1 to 240. The larger the number in the SPD gadget, the faster the tempo. The default setting is 033.
Secondary Tempo is the number of pulses between line numbers. Usually OctaMED-Pro plays notes on every sixth pulse. Unlike the Primary Tempo, the Secondary Tempo changes do not affect the speed of command effects.

You can set the number of pulses between 1 and 20 (hex) with the right proportional gadget. The default is 06. The lower the number in the SPD gadget is, the faster the tempo. You can use this as a crude way of setting the playing speed. For MIDI synchronization, leave the Secondary Tempo at 06 and adjust the Primary Tempo.

The time between pulses - pulse - PLAY NOTE -+ The number of pulses
is the Primary Tempo. - pulse - DO EFFECTS | between note lines
pulse - DO EFFECTS | is the Secondary Tempo.
pulse - DO EFFECTS |
pulse - DO EFFECTS |
pulse - DO EFFECTS-+
pulse - PLAY NOTE

BPM You can also use proportional gadgets to control BPM (beats per minute) timing in 4-channel songs. Click the SPD button. It will change to BPM.

The left tempo gadget will now control the BPM value. For example, 60 = 1 beat per second. The right gadget controls the length of beats in lines. For example, if you want eight lines to a beat, set this to eight. If the tempo values were 060/08, OctaMED-Pro would play exactly eight lines in a second.

VOLUME NUMBER BASE CONVERSION, FILTER, GRAPHIC V.U. METERS:

```
   +-----+-----+--------+----+----+----+-----+
VOL: | HEX | DEC | FILTER | E1 | E2 | E3 | STS |
   +-----+-----+--------+----+----+----+-----+
```

VOL: HEX DEC (VOLume HEXadecimal and DECimal). The command arguments associated with notes in the block are usually written as hexadecimal numbers, but you can use either hexadecimal or decimal numbers for entering volume commands in the BLOCK EDITOR by selecting the appropriate button. By default OctaMED-Pro uses decimal numbers. The state of this button is saved as a part of the song.

For compatibility, you can convert all the volume commands which already exist in a song between decimal and hexadecimal numbers with the following procedures:

To convert to hexadecimal numbers, click HEX while holding the Shift key.
To convert to decimal numbers, click DEC while holding the Shift key.

FILTER turns the Amiga's internal audio filter off and on. When this button is highlighted, the FILTER is on and the power LED on the computer will glow more brightly. For the best sound quality you should keep the FILTER off. However, the sound in the Split Channel Mode sometimes improves with the FILTER on. The status of this button is saved with songs.

If you have an Amiga 1000, leave the FILTER off. Amiga 1000's cannot turn this internal filter off without modifications to the computer hardware.

E1, E2, E3 are OctaMED-Pro graphic V.U. meters. They are useful as a quick check to see which track is playing, or to monitor rhythm. If a button is highlighted, that meter is active.

E1 is not visible on NTSC Amigas. On PAL Amigas this button turns the red bars at the bottom of the screen off and on.

E2 turns the four green bar sprites between tracks off and on.

E3 turns the oscilloscope-style displays between tracks off and on.

You can quickly turn off all three graphic V.U. meters and screen scrolling to save processor time just by clicking the right mouse button. The TITLE BAR shows at the top of the screen to indicate this state.

If you want to disable only one graphic V.U. meter to reduce the processor load, disable E3; it makes the most demands on processor time. Because of the demands of the Split Channel Mode, OctaMED-Pro automatically turns off all graphic V.U. meters in these modes.

STS When this button is active, OctaMED-Pro does not execute command effects on the first timing pulse. This switch is only for SoundTracker compatibility.

CHANNEL SPLITTING:

```
            +---+
     CH.MODE: | HQ|
+---+---+---+---+---+
| 4 | 5 | 6 | 7 | 8 |
+---+---+---+---+---+
```
Split Channel Selector

CH.MODE: HQ provides enhanced sound quality in the Split Channel Mode on Amigas with accelerators. If HQ is active, the playing speed slows a little. Adjust it with the tempo settings.

Normally the Amiga can play only four sounds at the same time. OctaMED-Pro provides a way to play as many as eight sounds.

The 4 5 6 7 8 buttons control the channel configuration of OctaMED-Pro. If you select more than four channels, OctaMED-Pro uses a different player, which can play two sounds on a single audio channel by splitting the channels.
In the 8 Channel Mode, OctaMED-Pro splits all four audio channels. The 5 Channel Mode splits only one channel, and you can use the other three channels for normal, higher quality output.
Split Channel Mode places a heavy load on the CPU. Because of this the following limitations are imposed to reduce the load:
The Primary Tempo uses only values from 1 to 10.
You can only use sampled sounds.
All graphic V.U. meters are turned off.
MIDI is disabled.
The default volumes of instruments are ignored.
The screen color depth is limited to 2 on unaccelerated Amigas.
Relative volumes set on the VOLUME PANEL are ignored.
Sound repeat and repeat lengths are limited to 400-byte steps.

The Split Channel Mode sometimes distorts sounds. If the distortion is unacceptable, try a different sound; some samples sound better than others. Turning on the audio filter with the FILTER button may also improve the audio quality.

While you are in the Split Channel Mode, OctaMED-Pro usually halves the volume of sampled sounds when it loads them. If you are using some channels that are not split, you can override halving and load normal samples for the un-split channels. To do so, load the instruments as normal, but press and hold the Shift key when you click the LOAD: INSTR button.

S=split, N=not split, (L)=left, (R)=right, -=unused Track

5 channel	S(R)	N(L)	N(L)	N(R)	S(R)	-	-	-
6 channel	S(R)	S(L)	N(L)	N(R)	S(R)	S(L)	-	-
7 channel	S(R)	S(L)	S(L)	N(R)	S(R)	S(L)	S(L)	-
8 channel	S(R)	S(L)	S(L)	S(R)	S(R)	S(L)	S(L)	S(R)

Channel Configuration in Split Channel Modes

The number of channels does not determine how many tracks there are. Because you cannot use MIDI, the number of tracks selected from the BLOCK PANEL should always be eight.

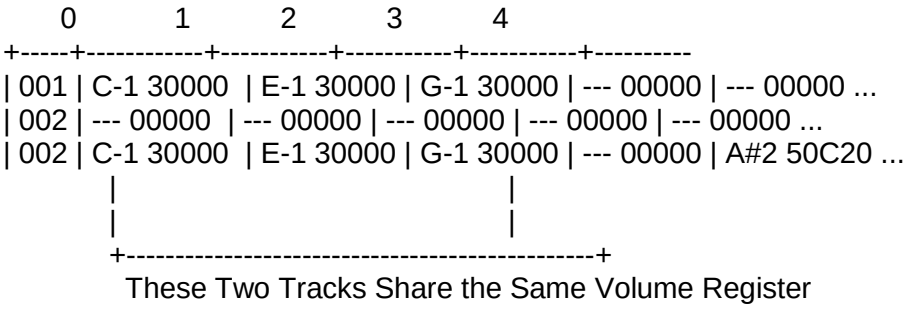
Do not use more split channels than you need. The fewer split channels used, the faster the data processing and the more channels you will have for high quality sound.

Because there are only four hardware channels and four volume registers, pairs of split channels must share a volume register. Thus, every 0C command Volume Change affects two tracks.

Paired Channel Numbers

(0-4) (1-5) (2-6) (3-7)

For example:



The volume command on track 4 will affect both tracks 4 and 0. OctaMED-Pro ignores default volumes of instruments for this reason.

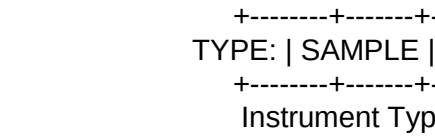
INSTRUMENT PANEL:

From the INSTRUMENT PANEL you load, modify, and get information about the instruments used in your songs.

INSTRUMENT TYPES:

Songs written with OctaMED-Pro may use up to 63 instruments. There are four types of instruments that you may use and mix within a song:

Sampled sounds
Synthetic sounds
Hybrid sounds
MIDI instruments



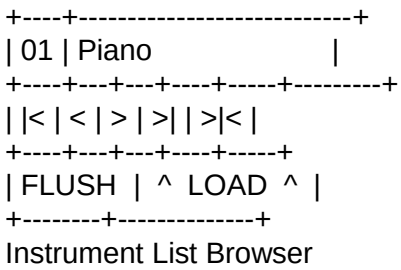
The highlighted TYPE: buttons at the bottom of the panel indicate the type of the current instrument.

SAMPLE (sampled sounds) play through the four Amiga audio channels. You can use them only on tracks 0-3. OctaMED-Pro can play either RAW samples or IFF 8SVX sounds. IFF 8SVX sounds may have 1, 3, or 5 octaves. Single octave IFF 8SVX sounds and RAW samples can only use octaves 1 to 3.

SYNTH (synthetic sounds) are instruments constructed from waveforms. These sounds are played by the Amiga sound chip. The main advantage of using synthetic sounds is that they require very little memory. You can control their waveform, volume, pitch, arpeggio and vibrato with a set of simple program instructions. You will find more information about waveform construction and the program commands in the SYNTHETIC SOUND EDITOR section.
HYBRID (hybrid sounds) are sampled sounds, but are controlled using the same program instructions as synthetic sounds.

MIDI INSTRUMENTS are not truly sounds. They are instructions that define which MIDI channel plays the note and which MIDI preset sound it will use. MIDI instruments are not loaded into memory like other sounds. Read the section detailing the MIDI PANEL for information about controlling MIDI with instrument names.

LOADING INSTRUMENTS:



Instrument List Browser

At the top of the INSTRUMENT PANEL is a string gadget. On the left end of the gadget is a number that shows an instrument's list position, from 01 to 1V. If there is an instrument loaded in this position, its name should be in the string gadget. This is the current instrument, and you can play it from the Amiga keyboard. If the Edit Mode is on, you can also enter notes using this instrument from the keyboard. If the instrument is a sampled or synthetic sound, the LEN: gadget will show its length in bytes.

If there is no instrument in this position, the string gadget will be blank. You may sometime run across a song from which the composer has removed the instrument names from the string gadget, though still using the instruments in the song. To determine whether this is the case, make each instrument number current and see if it plays from the keyboard. There is no advantage to removing the instruments' names.

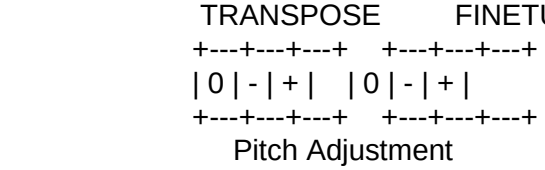
The five buttons below the instrument name let you navigate among the instruments used in the song and make them the current instrument.

Button 1 |< goes to 01, the beginning of the list.
Button 2 < moves one instrument number lower.
Button 3 > moves one instrument number higher.
Button 4 >| goes to 1V, the last instrument position.
Button 5 >|< goes to the last occupied instrument position.

The FLUSH button removes the current instrument and frees the memory it used.

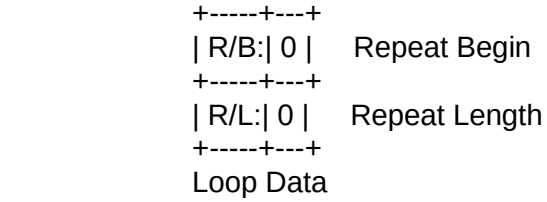
LOAD loads the instrument listed in the string gadget.

CHANGING THE PITCH:

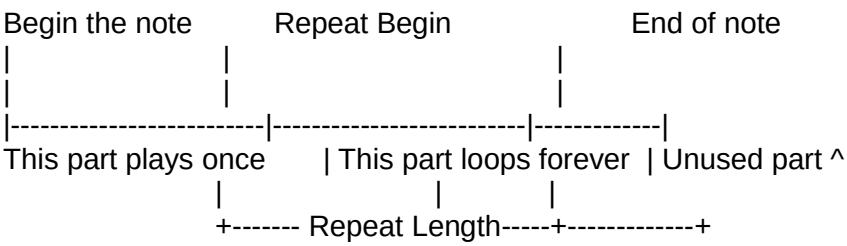


TRANSPOSE raises or lowers the pitch of the instrument in diatonic half steps. Click the TRANSPOSE string gadget and enter the number of steps or click the "+" or "-" buttons. For example, if you enter a "4" and play a C note it will sound (C-C#-D-D#-E) four chromatic half steps higher.
FINETUNE is similar to TRANSPOSE, but the changes are smaller, allowing you to fine tune the instrument's pitch. Acceptable values are -8 to 7.

SETTING A REPEAT: (loop)



Repeat is similar to a sustain. The note will play until the next note is played with that instrument.



R/B (repeat begin) is the length (in bytes) of the note from the beginning to where the repeat begins. This part plays only once each time the note is sounded.

R/L (repeat length) is the length (in bytes) of the section which plays forever or until another note is sounded. The repeat length must be 4 or greater and it must be an even number (odd values are rounded down).

VOL controls the volume of the current instrument. The volume setting is displayed on the left in both hexadecimal and decimal values. You can adjust it using the arrow gadgets or by dragging the proportional gadget bar.

HLD: (hold) sets the duration of the note in timing pulses. Then, if you have set the DECAY to 0, the note is immediately turned off.

Assuming you are using the default tempo, OctaMED-Pro would play the two notes shown below for all six timer pulses.

```
+-----+----------
| 008 | C-2 10000
| 009 | E-2 10000
```

If you entered a HOLD value of 2, the first note would play for only two pulses.

008 C-2 pulse sound	008 C-2 pulse sound
pulse sound	pulse sound
pulse sound	pulse silence
pulse sound	pulse silence
pulse sound	pulse silence
pulse sound	pulse silence
009 E-2 new sound	009 E-2 new sound
Without HOLD	With HOLD (set to 2)

If you want the instrument to play notes with a short duration, set HOLD for the number of timer pulses you want to play. This lets you define very precise note lengths.

DEC: (decay) sets the rate at which a sampled instrument sound decays. For the slowest decay rate set the value to 1. DECAY has no affect on MIDI instruments and is handled differently for synthetic and hybrid instruments.

For longer durations use the Continue Hold symbol. The Continue Hold symbol, -|-, is entered by clearing a note and setting only an instrument number, or by simply pressing the Return key.

BLOCK PANEL:

This panel contains controls for changing the number of tracks or lines in a block, cutting and pasting sections of blocks, as well as deleting, copying, and other block handling operations.

CUT AND PASTE EDITING:

```
   +-----+------+-------+------+
TRK: | CUT | COPY | PASTE | SWAP |
   +-----+------+-------+------+
```

Track Editing Functions

All the track keys perform their operations only on the track the Edit Cursor is on.

CUT clears all notes and commands from the track and puts it into the memory buffer.

COPY places a copy of the track in the memory buffer.

PASTE overwrites the track with the memory buffer contents.

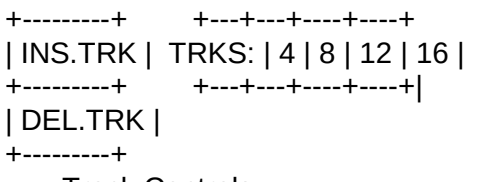
SWAP swaps the current track and the track in the memory buffer.

```
   +-----+------+-------+------+
BLK: | CUT | COPY | PASTE | SWAP |
   +-----+------+-------+------+
```

Block Editing Functions

These buttons work the same as the track functions described above except they affect the entire block.

SETTING THE NUMBER OF TRACKS IN A BLOCK:



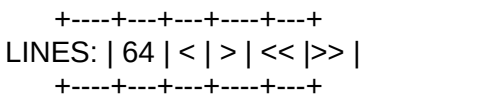
Track Controls

INS.TRK (insert track) inserts an empty track at the Edit Cursor. The track the Edit Cursor is on and any tracks to the right of the Edit Cursor are shifted right. The number of tracks does not increase, so an INS.TRK operation always deletes the rightmost track.

DEL.TRK (delete track) deletes the track the Edit Cursor is on. Tracks to the right of the Edit Cursor shift left and an empty track is added to the left side.

TRKS: 4 8 12 16 selects the number of tracks for the current block. Reducing the number of tracks deletes the higher numbered tracks. There is no request for confirmation. Always use eight tracks in the Split Channel Mode.

SETTING THE NUMBER OF LINES IN A BLOCK:



Number of Lines

LINES: The arrow gadgets select the number of lines in the block. The single arrows increase or decrease the number by one, the double arrows by ten. You can also click the string gadget and enter the number directly. This is the preferred way because it minimizes memory fragmentation. A block may have up to 3200 lines.

+--------+---+--------+
| EXPAND | 2 | SHRINK | Block Expansion
+--------+---+--------+

EXPAND lengthens the block by inserting empty lines between each note. If the expanded length of the block would exceed 3200 lines, the maximum block size, the MESSAGE LINE will tell you there are too many lines and no change will occur.
SHRINK is only useful as an undo function for EXPAND.
The number gadget between EXPAND and SHRINK buttons is the amount of expansion or contraction. Entering a 2 doubles or halves the length of the block, 3 triples it or makes it one-third of the size, and so on.

+--------+--------+
| INS L. | DEL L. | Line Edit +--------+--------+

INS L. (insert a line) inserts a new line in the block at the Edit Bar position. It increases the block length by one line. The line the Edit Bar is on and those below shift down.
DEL L. (delete a line) deletes the line the Edit Bar is on and reduces the block length by one. The lines below the Edit Bar shift up.

MISCELLANEOUS:

+----------+---+---+---+---+----+---+
| DEL BUFF | 1 | 2 | 4 | 8 | 16 | C |
+----------+---+---+---+---+----+---+ Delete Buffer and Highlight Spacing

DEL BUFF (delete buffer) flushes the contents of the memory buffer and frees the memory.
The 1 2 3 4 8 16 C buttons will highlight BLOCK EDITOR lines at regular intervals corresponding to the number you select. This can help you position notes on widely spaced tracks or mark measures or beats. The 1 button highlights every line, 2 every other line, 4 every fourth line etc. The C button clears the highlights. You can also toggle the highlight on the current line with the TAB key. OctaMED-Pro saves highlights with songs.

ADDING DIVIDING, AND DELETING BLOCKS:

+-----------+-----+
| NEW BLOCK | DEF |
+-----------+-----+
| NEW HERE | DEF |
+-----------+-----+
Block Addition

NEW BLOCK adds a new block at the end of the song. The new block will have the same number of tracks and lines as the current block.

DEF is the same as NEW BLOCK except that the block has the default specifications, 64 lines and four tracks. The default for the Split Channel Mode is eight tracks.

NEW HERE adds a new block at the current location and shifts all following blocks down. OctaMED-Pro will correct the numbers in the Play Sequence List so the song is not changed. DEF also adds a block at the current position like NEW HERE, but it uses the default block specifications, 64 lines and 4 tracks.

+-------------+-------------+
| DELETE LAST | DELETE THIS | Block Deletion +-------------+-------------+

DELETE LAST deletes the last block. There is no request for confirmation.

DELETE THIS deletes the current block. OctaMED-Pro corrects the numbers in the Play Sequence List.

+-------+------+
| SPLIT | JOIN | Block Division
+-------+------+

SPLIT divides the current block into two blocks. The line the Edit Bar is on will become the first line of the second block.
JOIN forms a single block from the current block and the one below it.

EDIT PANEL:

The EDIT PANEL permits selective track muting, octave changes, control of the Edit Cursor advance controls, and choosing alternate maps for the keypad. This is also the location of the Programmable Keys Editor.

MUTING TRACKS:

```
     +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+---+---+
TRK ON: |1|2|3|4|5|6|7|8|9|A|B|C|D|E|F|SET|CLR|
     +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+---+---+
           Mute Track Selector
```

TRK ON: buttons turn the sound off and on for any track. There are sixteen buttons from 1 to F. If a track button is black, the sound for that track is ON. Muting tracks is often helpful while composing songs.

SET turns the sound on all tracks ON.CLR turns the tracks OFF.

KEYPAD MAPS:

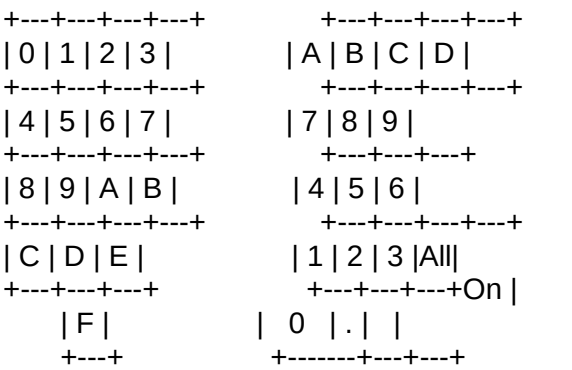
```
     +------------+-----------+------+
KEYPAD: | TRK ON/OFF | SEL.INSTR | MAP2 |      Map Selector

     +----+-------+----+------+------+
```

KEYPAD: TRACK ON/OFF, SEL.INSTR and MAP2 let you select one of four definitions for the number keypad on the right side of your Amiga keyboard.

```
+---+---+---+---+
| ( | ) | / | * |
+---+---+---+---+
| 7 | 8 | 9 | - |
+---+---+---+---+
| 4 | 5 | 6 | + |
+---+---+---+---+         The Keypad
| 1 | 2 | 3 |   |
+---+---+---+   |
|   0   | . |   |
+---+---+---+---+
```

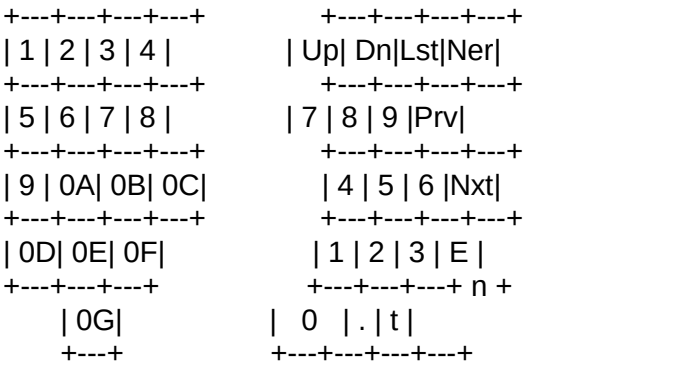
TRACK ON/OFF (MAP2 not highlighted) uses the keypad to turn the sound on the sixteen tracks on and off. The numbers of the keypad are NOT related to the track numbers. The following diagram shows the track numbers that the keys control:



Track ON/OFF (no MAP2) Track ON/OFF (+ MAP2)

TRK ON/OFF + MAP2 changes the arrangement and "." mutes all tracks. Press Enter to turn all tracks on.

SEL.INSTR (MAP2 not highlighted) changes the keypad to select the first 16 instruments loaded in memory. They are mapped as follows:



SEL.INSTR (no MAP2) SEL. INSTR + MAP2

SEL.INSTR + MAP2 offers a map that lets you select instrument numbers higher than nine as well as the following special functions.

Keys 0-9 select instruments 0-9
"." changes the instrument number + or - 10.
If you press the Enter key you enter the alphabetic characters A through V from the main keyboard for instruments that use them in their numbers.
"+" next instrument
"-" previous instrument
"(" reduces the volume one step
")" increases the volume one step
"/" selects the instrument last used
"*" selects the instrument nearest the Edit Cursor

EDIT MODE:

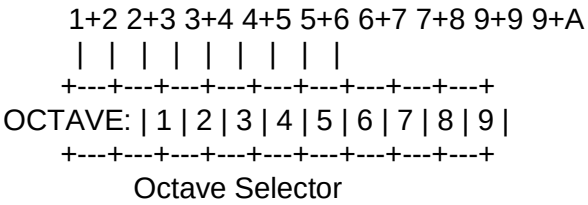
+---------+
| EDIT ON |
+-----+---+
| SPC | 2 |
+-----+---+
Edit and Space

EDIT ON turns on the Edit Mode. If the Edit Mode is active, the notes you play on the Amiga keyboard will be entered into the block.

SPC turns on the automatic spacing between the notes when you press the Return key. You can set the number of spaces the Edit Bar skips between notes from 1 to 16. Click the string gadget next to the SPC button, and enter the number of spaces you want to be inserted. If you enter 1, there will be no spaces between notes.

Placing spaces between notes while entering music makes editing and tempo changes much easier. After you have entered the music you may want to turn this spacing function off to allow the Edit Bar to move into the lines between notes.

SETTING OCTAVES:



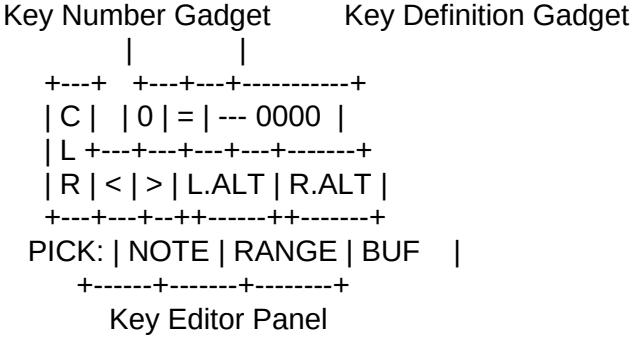
Octave Selector

From the keyboard you can play and enter a two-octave range of notes. The Octave Selector buttons are labeled with the lowest octave they provide. The highlight indicates which two octaves are current. You may change the octaves by clicking on the lowest the octaves you want to use. Most instruments do not have a nine-octave range. If the current instrument does not have the octave you choose, then the note will play using the nearest available octave.

THE PROGRAMMABLE KEY EDITOR:

To make entering music much easier and faster you can assign a note or a group of notes, including commands, to the 0 thorough 9 keys on the main keyboard. These keys will insert the notes assigned to them when you press Shift + (assigned number).

You can also program the Left ALT and Right ALT keys to insert commands with notes as you enter them.



Key Editor Panel

The Key Definition string gadget shows the definitions of the programmed number keys. Use the left and right arrow buttons to bring the key definition into the string gadget. Click the L.ALT or R.ALT buttons to display the current definition of the Left or Right ALT keys.

If a character in the definition is an "x", it will not change the corresponding digit in the BLOCK EDITOR when you enter the note with the programmed key.

For example, given the following definition: xxx xx0000

Because the note and instrument characters are x's, they are unchanged when using the programmed key. The above definition would change only the last three characters to zeros. With this example definition, you could press and hold the Shift + (assigned number) and the key repeat function would strip all the commands, leaving only the notes in a track.

The first three note characters in R.ALT and L.ALT definitions are always xxx and you cannot change them. The instrument numbers, the fourth and fifth characters, are xx by default, but you can set them to change the instrument.

PROGRAMMING THE NUMBER KEYS:

Put the Edit Cursor on a note in the BLOCK EDITOR.
Select the number key you want to define using the arrow buttons.
Click the PICK: NOTE button.
The note definition will appear in the string gadget.

If the Edit Mode is active, when you press Shift + (assigned number) a note with this definition will be entered at the Edit Cursor position.
You may also assign a group of notes to a numbered key:

Define a range of notes in the BLOCK EDITOR by dragging the mouse while holding the left mouse button, or use the RANGE PANEL to set the range.
Select the number key you want to define using the arrow buttons.
Click the PICK: RANGE button.

NOTICE TO RBF SOFTWARE LICENCED MANUAL DISTRIBUTORS

This page is for advertising your own programs that may be of interest to your customers,it has been deliberatly put here so that your customers will not be able to avoid it!

If the Edit Mode is active, the programmed key will now insert the range, starting at the Edit Cursor position, when you press the Shift + (assigned number) key.

PROGRAMMING THE ALT KEYS:

Put the Edit Cursor over a note that has a command definition.

Click the Left or Right ALT key button.

Click PICK: NOTE.
The command will appear in the string gadget.

Now, when you enter a note while holding down the programmed ALT key, the command will be included with the note.

AN ALTERNATIVE METHOD OF DEFINING KEYS:

Click the digit you want to change in the Key Definition gadget. Keep the mouse pointer on the digit. Without releasing the mouse button, enter a new number from the keyboard while holding the mouse button.

This is also the technique for entering x's for non-changing characters. Use the procedure above, but press the Return key to enter an x.

To change several digits, do not to release the mouse button. Re-position the mouse over the next digit you want to change and enter the new digit.

This technique only works on the last six characters of the note.

PICK: NOTE selects the note under the Edit Cursor as the key definition.
PICK: RANGE selects a range as the key definition.
PICK: BUF uses the copy buffer contents as the key definition.

CLR removes the definition of the selected key.

You can save the definitions with the SAVE PREFS button on the MISCELLANEOUS PANEL. They will automatically load when you run OctaMED-Pro next time.

MISCELLANEOUS EDIT CONTROLS:

SPACE=DEL sets the Space Bar to work like the DEL key. It will then enter spaces and delete notes. It will no longer serve as the STOP PLAY keyboard short-cut. To stop playing a song use the STOP button on the PLAY PANEL.

ADV. (advance) determines how the Edit Cursor will move in the BLOCK EDITOR when you press the Return key.

If the button with the image of a loudspeaker is active, the notes will sound as you move the Edit Cursor.

While editing a block, you usually want the Edit Bar to move down one line when you press Return, the default behavior. Occasionally, during editing, it is useful to change this. Click the arrow buttons for the following:

Moves up one line. ^
Moves to the next line down (the default). v
Moves one track right. >>
Moves one track left. <<
When entering control numbers, moves right. >
When entering control numbers, moves left. <

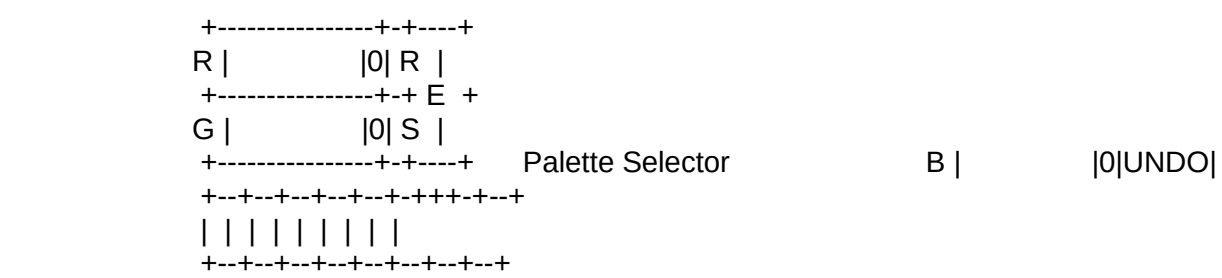
You may have two advance buttons active at the same time: One moves the Edit Cursor vertically when you enter a note and the other moves it horizontally when entering commands.

MISCELLANEOUS PANEL:

From this panel you can change several preference choices and save them. You can also quit the program and clear songs here.

SCREEN COLORS:

On the left there is a palette panel to adjust the eight available screen colors. To change a color, select it by clicking its colored square below the palette sliders. Then, drag the red, green, and blue sliders to adjust the RGB mixture of the colors. OctaMED-Pro saves the palette colors with songs.

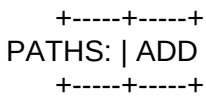


RES (restore) sets the palette to the default colors.

UNDO returns the screen to the colors used when you opened the MISCELLANEOUS PANEL.

ABSOLUTE INSTRUMENT NAMES:

You may often come across songs made with Tracker programs that have absolute instrument names like "ST-02:Piano", the disk name as a part of the instrument name.
The advantage to absolute names is that the program that loads the song will know exactly where the instruments are and will ask for the disk by name if it's not in a drive.The disadvantage is,if you copy the ins to a new disk with a different name,the program will not be able to find them.Normally,you would have to load the instruments from the original disk and rename each instrument,or rename the disk to load them.



File Name Changes

PATHS: buttons offer an easy way of working with songs that use absolute instrument names:

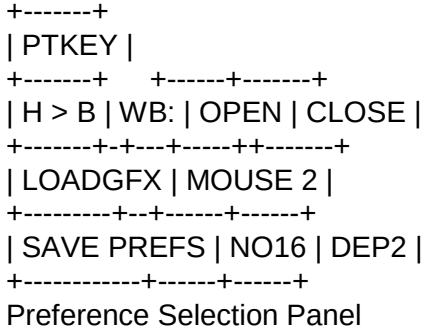
ADD adds the path description to instrument names to create absolute names for them when they load.

REM removes the disk name from instruments as OctaMED-Pro loads them. The left side of the instrument name, up to and including the semicolon, is removed. If there is no semicolon in the instrument name, it is not changed.

OctaMED-Pro can then use a special file called MED_Paths instead of absolute names to locate and load instruments. You make a MED_Paths file with the SAMPLE LIST EDITOR.

Both REM PATHS and ADD PATHS may be active at the same time. If they are, the original path is removed and the current path added. A word of caution, the maximum length for instrument names is 39 characters. If the path and name resulting from ADD PATHS is longer, the name will be truncated.

PREFERENCE SETTINGS:



Preference Selection Panel

PTKEY changes the keyboard map to recognize the most common ProTracker keyboard shortcuts. See Appendix B for a table of the recognized shortcuts.

H>B lets you choose the way you want OctaMED-Pro to write the note between A# and C. Some countries such as Finland use H, and others use B. If highlighted in black it will use C.

WB: OPEN and CLOSE buttons open and close the Workbench screen. You may sometimes want to close the Workbench to conserve memory.

LOADGFX, if selected, does not keep the graphics panels of the SYNTHETIC SOUND, SAMPLED SOUND, GRAPHIC NOTATION, and MIDI Map and MIDI Message EDITORS in memory. It loads them only when needed. This reduces the amount of RAM memory needed to run OctaMED-Pro.

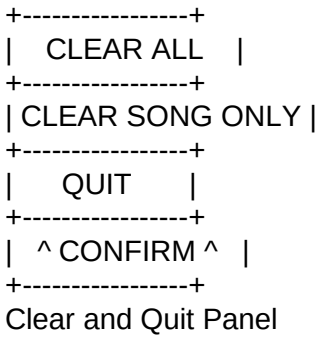
MOUSE 2 provides an alternate use for the mouse. If selected, it lets you position the Edit Cursor with the left mouse button. The mouse will no longer mute the tracks you click.

SAVE PREFS saves the current preference settings of OctaMED-Pro in your S: directory with the file name "octamed.config". When you start OctaMED-Pro these settings are loaded. The following defaults are saved:

Screen colors
H>B button setting
E1, E2, and E3 equalizer selection
Screen depth (DEP2)
NO16 setting
SPACE=DEL selection
Keypad mode
Automatic Advance settings
Programmed key definitions
PTKEY switch state

DEP2 (Depth 2) changes the screen depth from eight colors to four. This frees some chip memory and releases much DMA (direct memory access) time.

NO16 If you are using sixteen tracks and this button is selected, the BLOCK EDITOR will display 8 tracks on the screen instead of 16. The left and right cursor keys can scroll the tracks horizontally to reveal the other tracks. This makes the screen characters larger and easier to read.



Clear and Quit Panel

CLEAR ALL clears all songs and instruments from memory.

CLEAR SONG ONLY clears only the current song.

QUIT Quits OctaMED-Pro.

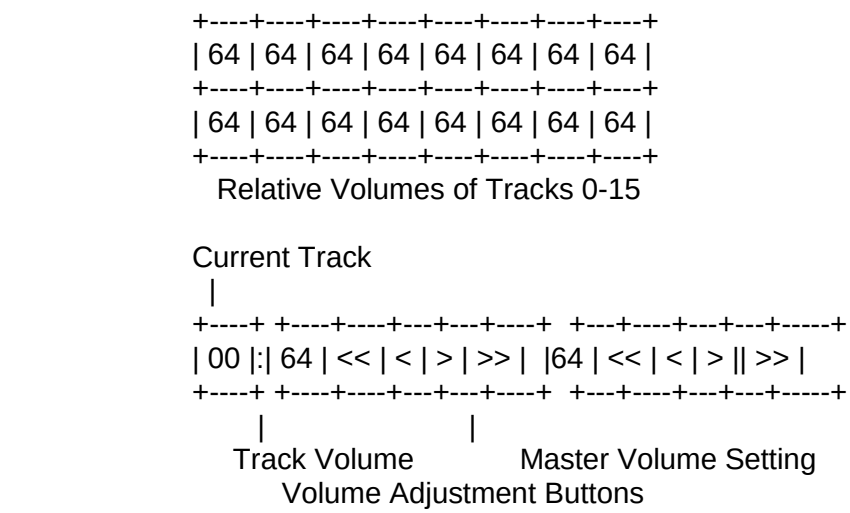
CONFIRM You must select CONFIRM after clicking any of the above three buttons. This minimizes the risk of losing a song.

VOLUME PANEL:

On this panel the you can adjust the volume of tracks relative to the master volume.

You can set the volume of each track between 1 and 64. If you set both the master volume and a track's volume to 64, the track will play at full volume. If you set the track's volume to 32, the volume of the track would be 1/2 of the master volume. If both volumes were set to 32, the track volume would be 1/4 of the maximum volume.

Click the square that corresponds to the track you want to adjust.



The arrow buttons on the right set the Master Volume. The left ones change the Current track's volume.

Select a track from 0 to 16 by clicking one of the squares above the arrow buttons. The track number will appear in the current track gadget, the string gadget displays the volume level, and the track's square will be highlighted.

OctaMED-Pro saves all these volume settings with songs.

MIDI PANEL:

This panel provides most of the controls available for sending notes and commands through a MIDI controlled keyboard. There is also a MIDI Message Editor.
To input from the MIDI keyboard you must do the following:

(1) The Edit Mode must be active.
(2) The MIDI INPUT button must be selected.
(3) You must have created a MIDI Map (select NEW from the Map Editor).
(4) The VOL: gadget on the INSTRUMENT PANEL must be set above 00.

Unlike internal Amiga instruments, You may use MIDI instruments on any track. You may also freely mix internal Amiga sounds and MIDI instruments on the first four tracks.

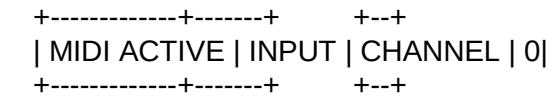
```
      +---------+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+
MIDI CH: | NO MIDI | 1| 2| 3| 4| 5| 6| 7| 8| 9|10|11|12|13|14|15|16|
      +---------+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+
                  Channel Selector
```

MIDI CH: selects one of the 16 MIDI channels for the current instrument. If you select MIDI channel 2, OctaMED-Pro sends the notes for the current instrument through that channel.

The VOL: gadget on the INSTRUMENT PANEL must be set above 00 to get sound from the MIDI device.

MIDI PRESET #: is a string and proportional gadget for setting a MIDI preset number for an OctaMED-Pro MIDI channel. OctaMED-Pro normally uses the default preset of the channel set on your MIDI device. To use a different preset, enter the number in the string gadget or use the arrow gadgets to set the number. A Program Change message is transmitted when a note is played. If the preset number is 0, the default preset is used.

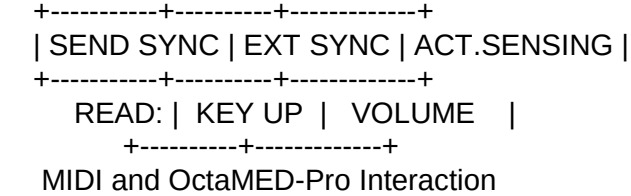
You can use instruments with different preset numbers on the same MIDI channel. OctaMED-Pro automatically sends a Program Change message to the MIDI device when it encounters a change in the preset number.



MIDI On and Input Enable

MIDI ACTIVE must be selected to use MIDI. When highlighted, OctaMED-Pro will allocate the serial port for MIDI use. If another program is using the serial port, OctaMED-Pro cannot use MIDI. You must terminate the other program.

You can use the MIDI keyboard to insert notes directly into OctaMED-Pro. If you select the INPUT and Edit Mode, notes played on the MIDI device will be entered into the song. You may also enter samples from MIDI. Next to the INPUT button is an integer gadget containing the number of the input MIDI channel. If you set it to 0, OctaMED-Pro accepts input from all MIDI channels.



MIDI and OctaMED-Pro Interaction

SEND SYNC sends MIDI sync information that allows other devices to synchronize with OctaMED-Pro.

EXT SYNC allows OctaMED-Pro to be synchronized by the MIDI clock. Input must also be active when this is on. The synchronization only works while playing songs, not when using PLAY BLOCK or CONT. BLOCK.

ACT.SENSING causes OctaMED-Pro to send Active Sensing Messages ($FE). It is the default. Active Sensing tells OctaMED-Pro if all cables are connected.
READ: functions take input from the MIDI device.
KEY-UP records when a key is released after you play it.You may want to use this with real-time recording.This is useful for recording notes.

VOLUME if selected, enters a volume command as part of a note when you enter it. This is useful only with a velocity sensitive keyboard.

The transpose option on the INSTRUMENT PANEL helps use all octaves available on MIDI devices. There can be two identical instrument settings with different instrument transpositions. Transpose can cover nearly the full range of notes.

LOC.
CTRL
+---+
| ON|
+---+
|OFF|
+---+
Local Control Switch

LOC. CTRL ON and OFF buttons, when selected, send Local Control On and Off MIDI messages.

+----------+-------------+
| SEND OUT | SUPPR.N.OFF |
+----------+-------------+

SEND OUT replays the input MIDI notes. This is useful, when your sound module and keyboard are separate.

SUPPR.N.OFF, when selected, suppresses the Note Off messages for the current instrument. Some MIDI instruments, like one-shot drum sounds, ignore the Note Off messages. When you select SUPPR.N.OFF, OctaMED-Pro does not send Note Off messages for the instrument, reducing unnecessary MIDI activity.

+----------+---------+---------+
| ALL OFF: | $Bx7B00 | N.OFF:S |
+----------+---------+---------+
| RESET: | PB+PRES | $FF |
+----------+---------+---------+
Note Off and Reset Modes

ALL OFF: selects the method of turning off notes (after pressing the space bar).

$Bx7B00 sends MIDI All Notes Off messages to each MIDI channel. If your MIDI device supports it, this is the best method because it stops all notes, not just those triggered by OctaMED-Pro.

N.OFF:S sends a standard MIDI Note Off messages to each track.

RESET: selects the method of resetting the MIDI.

PB+PRES resets pitch bender and modulation wheel for all channels. Also, OctaMED-Pro cannot detect whether you have changed presets on your MIDI device. RESET PB+PRES informs OctaMED-Pro of the changes (and causes OctaMED-Pro to send Program Change commands for all channels).

$FF sends a standard System Reset.

MIDI MESSAGE EDITOR:

This editor helps write SysEx messages (System Exclusive Messages). However, it is not limited to SysEx messages.
When OctaMED-Pro first opens there are no MIDI Messages.

```
Current Message       Total Number of Messages
       |              |
     +----++---+---+ +------+
MSG #: | 1  || < | > |/| 0001 |
     +----++---+---+ +------+
     Message Number Selector
```

MSG #: Current Messsage is the number of the current MIDI Message. The arrow buttons move other existing messages into the current position. Total Number of Messages is the number of messages in the group.

```
+-----+--------+-----+-------+
| NEW | N.HERE | DEL | CLEAR |
+-----+--------+-----+-------+
  Add and Delete Messages
```

NEW adds a new message position to the bottom of the list.

N.HERE. inserts a new MIDI Message at the cursor position on the list.

DEL deletes the MIDI Message under the cursor.

CLEAR clears the current message.

```
        +------++---+---+
MSG SIZE: | 0000 || < | > |
        +------++---+---+
   Number of Bytes in the Message
```

MSG SIZE: adjusts the size of the current message (between 1 and 4096 bytes). Clicking the right arrow adds a new 00 byte to the end of the message. The left arrow deletes the rightmost byte.

```
+-------+------+----------------+
| CAPT. | SEND | AUTO-TERMINATE |
+-------+------+----------------+
  Receive and Send Messages
```

CAPT. captures a message coming from the MIDI device. You must set up an empty message as large or larger than the incoming message before sending one.

SEND sends the current MIDI Message. There is also a command, 10, you can add to a note to send a MIDI message from within a song.

AUTO-TERMINATE if active, ends capturing when it receives an End SysEX Command ($F7). It also reduces the number of bytes to the size of the data received, deleting the unused bytes. If AUTO-TERMINATE is not active, OctaMED-Pro will capture all incoming bytes until you re-select the CAPT. button or the buffer is full. Because you should not leave unused 00's at the end of a MIDI message, you should normally select AUTO-TERMINATE.

RECORDING A SYSEX MESSAGE:

Click NEW to create a new message. A new message is 8 bytes long. To capture a typical SysEx message the buffer will probably need to be much longer. Set the message size high enough (up to 65536 bytes), say 60000. It does not matter if it is too long. Experimentation will tell you the proper length for messages.

Select AUTO-TERMINATE.
Click CAPT. (capture)
Press the key you want to send on your MIDI to initiate a SysEx Send from your MIDI device. OctaMED-Pro will report when the transfer is complete, and adjust the message size to fit the SysEx message.

Message recording will end if:

(1) you select CAPT. again.
(2) AUTO-TERMINATE is active and a End of Exclusive message ($F7) is sent.
(3) the MIDI Message is full.

EDITING THE MESSAGE:

The MESSAGE EDITOR is made active with the Esc key. Use cursor keys to navigate in the editor and keys 0-9, A-F to change the hex data.

Use the MSG SIZE < arrow button or the Amiga Del key to delete the rightmost byte.
Use the MSG SIZE > arrow button or the Amiga Shift-Del key to add a byte to the right side.
The Del key deletes the current byte. Shift-Del inserts a new byte.

Suppose, for example, that you want to send a Tune Request message ($F6). Create the message and set the size to one byte. Then enter F6, then just click SEND to send it. Using the command 10, you can send Tune Request at the beginning of the song automatically, if you want.

NAME is not required. It holds the name of the current message as a reminder. You will find this useful because it is difficult to recognize the function of a MIDI message just by looking at it.

You can save MIDI messages from the FILE PANEL with the SAVE MSG button.

INPUT MAP EDITOR:

The default input map assigns a note to each MIDI key. When you press a MIDI key with the Edit Mode on, that note plays and is entered into the score. You can also create a map which assigns an edit function to be carried out when you press a key. For example, you could assign a key on your MIDI keyboard to move the cursor up and down, or to start playing a song.

```
+----+-----+----------+--++--------+
| 00 | 000 |C-1xxxxxx |  || ACTIVE |
| 01 | 001 |C#1xxxxxx |  || RESET  |
| 02 | 002 |D-1xxxxxx |  || FUNCT: |
| 03 | 003 |D#1xxxxxx |  || N | <|>|
| 04 | 004 |E-1xxxxxx |  || NEW|DEL|
+----+-----+----------+--++--------+
```

MIDI Map Editor

By default, there is no Input Map. To create one, click NEW. The Editor will display the default Input Map, a list of 128 MIDI keys. Each note will have an entry like this:

C-1xxxxxx

If you leave the assignment like this, the C-1 key will enter a C note with the current instrument number and leave any command numbers unchanged because the instrument and command values are set to "x" (leave unchanged).

TO CHANGE THE INPUT MAP:

Click the entry for the key note in the edit window you want to assign a function. The selected note is indicated by a white cursor bar. The arrow buttons let you scroll the list of notes.

Use the FUNCT: < and > gadgets to scan through the available functions. Once the definition is in position, the key program is set. The available functions are:

Play song
Play blk (play block)
Cont song
Cont blk (continue block)
Stop play
Curs up (cursor up)
Curs down (cursor down)
Curs left (cursor left)
Curs right (cursor right)
Prev trk (previous track)
Next trk (next track)
Prev (previous block)
Next blk (next block)
Edit (editing on and off)
Spc (automatic spacing on and off)
DEL (same as the DELete key)
-|- (same as Return key)
Prev (previous instrument
Next inst (next instrument)
Chord (chord mode on and off)
1st (go to the first line of the block)
Last line (go to the last line of the block)

Click the FUNCT: N to restore a key to the map for entering a note.
DEL deletes the input map.
ACTIVE turns off the MIDI mapping.
RESET resets the key under the cursor to its default setting.
MIDI Input Maps are saved with the song, but you can also save them as separate files to use in other songs. The FILE PANEL contains Load MAP and Save MAP gadgets for doing this.

TRANSPOSE PANEL:

On this panel you can alter the pitch of single notes, portions of a song, or a whole song. You can also transpose, delete, change and exchange all instances of a particular instrument.

There are three basic steps to transposing:

(1) Define the scope of the transpose within the song.
(2) Set the instruments you want to change.
(3) Set the amount of change in pitch you want.

SELECTING THE SCOPE OF THE CHANGE:

```
    +------+-------+-------+-----------+-------+
AFFECT | SONG | BLOCK | TRACK | SEL. TRKS | RANGE |
    +------+-------+-------+-----------+-------+
```

Scope Definition

The AFFECT buttons at the top of the screen define the scope of the transposition within the song.

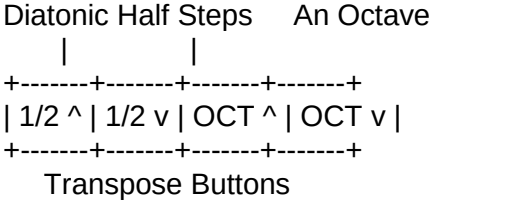
SONG affects the entire song.
BLOCK limits the change to the current block.
TRACK restricts the transpose to the track the Edit Cursor is on.
SEL TRKS (selected tracks) and the RANGE options must first be defined in the RANGE PANEL.

Within the scope you select, you may also choose to affect only the current instrument or to affect all instruments.

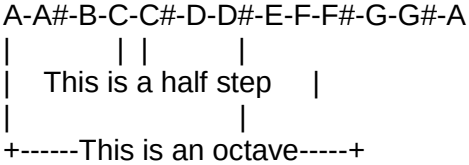
```
    +-----+------+
INSTR: | ALL | CURR |
    +-----+------+
```

Instrument Limits

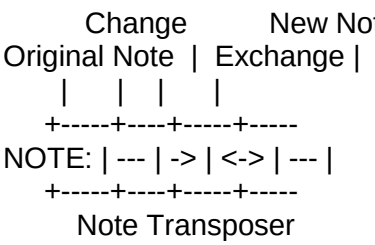
THE DEGREE OF CHANGE:



The simplest change is to raise or lower the pitch of the area you have defined by a half step or an octave. Simply click the button for the amount of change you want in half steps or octaves.



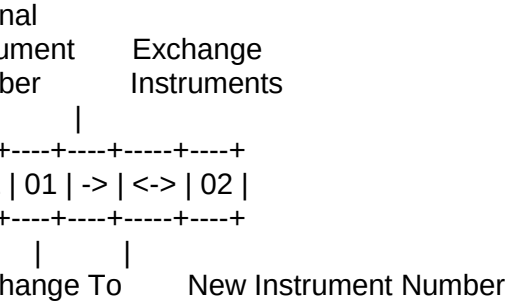
TRANSPOSING INDIVIDUAL NOTES:



You can also change every occurrence of a single note throughout a defined area. For example, to change A#2 to C#1, and to limit the change to the piano instrument throughout the song:
Select SONG from the AFFECT buttons.
Make Piano the current instrument
Select CURR from the INSTR buttons.
Click and hold the Original Note gadget from the NOTE buttons.
Press the "7" key (A#2).
Click and hold the New Note gadget from the NOTE buttons.
Press the "S" key (C#1).
Click the CHANGE button from the NOTE buttons.

You may also swap every incident of two notes by following a similar procedure as the one above. But,in the final step,click EXCHANGE button. In the above example, every A#2 would become C#1, and every C#1,an A#2.

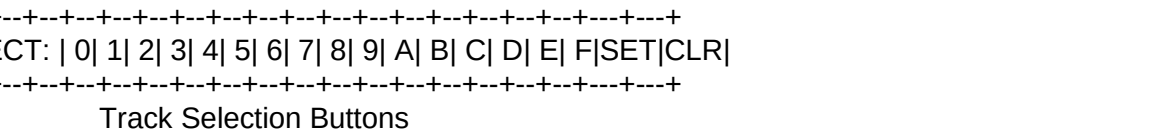
INSTRUMENT DELETION, EXCHANGING AND CHANGING:



You can also delete all the notes played by an instrument:
Make the instrument you want to delete current.Click the Original Instrument number.The current instrument will appear in that gadget. Click DEL. This will remove the instrument and all notes it plays from the song.You may switch all the notes played by an instrument to a different instrument:
Make the instrument you want to change current.
Click the Original Instrument number gadget.
The current instrument number will appear in the string gadget.
Make the new instrument current.Click in the New Instrument gadget.
The instrument number will appear in the gadget.Click the Change button.
This changes all instances of the Original Instrument number to the New Instrument number.
To exchange two instruments, follow the same procedure described above except, in step #3, click the Exchange button.
PLAY TRANSPOSE: transposes the whole song, but it does not write the change in the song. The string gadget to the right of the slider shows the change in chromatic half-steps. You can use PLAY TRANSPOSE as the song is playing.
TEXT:, the long string gadget at the bottom of the TRANSPOSE PANEL, can contain up to 69 characters of text.Possibly you could put a song title or composer's name here,or special instructions.OctaMED-Pro saves this message with the song if the INFO button on the FILES PANEL is selected. When you load the song again, the text will appear on the MESSAGE LINE.

1
RANGE PANEL:

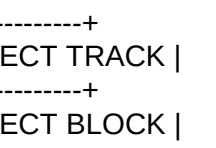
A range is a rectangular area of notes in a block. It could be as small as a single note or may include an entire block. Select a range by dragging the mouse while holding the right button. The range is highlighted as you define it.
You can define a range regardless of the control panel that is active. However, the RANGE PANEL offers more control and provides alternative methods for defining ranges.



Track Selection Buttons

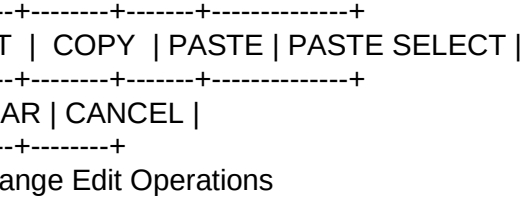
Use these buttons to choose tracks for the PASTE SELECT or transpositions done on the TRANSPOSE PANEL.

SET selects all tracks.
CLR de-selects all tracks.



Track and Block Ranges

SELECT TRACK and SELECT BLOCK. Clicking one of these selects either the current track or the entire block as a range.
To the right of the SELECT TRACK and SELECT BLOCK buttons are buttons for the range operations:



Range Edit Operations

CUT deletes the notes in the range, and it copies them to the copy buffer. You can use them later in a paste operation.

COPY does not change the defined notes. It just copies them to the copy buffer.

PASTE puts the contents of the copy buffer in the block starting at the Edit Cursor. If there are notes already in the area, the new notes will replace them.

PASTE SELECT is used with the Track SELECT buttons to paste the copy buffer into selected tracks. For example:

Define range containing lines 001 to 004 on track 0.
Copy it to the buffer with the CUT button.

```
Line#   Track 0     Track 1     Track 2     Track 3
+-----+-----------+-----------+-----------+----------
| 001 | C#1 10000 | E#2 10000 | --- 00000 | --- 00000
| 002 | D-1 10000 | F-2 10000 | --- 00000 | --- 00000
| 003 | C-1 10000 | E-2 10000 | --- 00000 | --- 00000
| 004 | G-1 10000 | B-2 10000 | --- 00000 | --- 00000
            Existing Tracks
```

Click the SELECT: 1 and 3 buttons.
Click PASTE SELECT.
The notes that were in track 0 are pasted into track 1, and the notes that were in track 1 are pasted to track 3, resulting in this:

```
Line#   Track 0     Track 1     Track 2     Track 3
+-----+-----------+-----------+-----------+-----------
| 001 | --- 00000 | C#1 10000 | --- 00000 | E#2 10000
| 002 | --- 00000 | D-1 10000 | --- 00000 | F-2 10000
| 003 | --- 00000 | C-1 10000 | --- 00000 | E-2 10000
| 004 | --- 00000 | G-1 10000 | --- 00000 | B-2 10000
          Example Paste Select Results
```

CLEAR deletes all notes in the defined range. It does not put them in the copy buffer.

CANCEL cancels the range definition and removes the highlight.

```
      +---+---+---+
SPREAD: | 2 | 3 | 4 |
      +---+---+---+
```
How Many Tracks to Spread

This spreads the notes on track 1 across the block to tracks 2, 3, or 4. For example, if every line on track 0 is filled, and you select SPREAD: 2, all the even numbered notes from track 0 would shift to track 1 retaining their line positions.

```
       Track 0     Track 1              Track 0     Track 1
+-----+-----------+-----------     +-----+-----------+-----------
| 000 | C-1 10000 | ---  00000     | 000 | C-1 10000 | ---  00000
| 001 | C-1 10000 | ---  00000     | 001 | --- 00000 |  C-1 10000
| 002 | C-1 10000 | ---  00000     | 002 | C-1 10000 | ---  00000
| 003 | C-1 10000 | ---  00000     | 003 | --- 00000 |  C-1 10000
| 004 | C-1 10000 | ---  00000     | 004 | C-1 10000 | ---  00000
            Spreading Notes Across Two Tracks
```

SPREAD: 3 or 4 spreads notes across three or four tracks. If notes already exist in these positions, the operation replaces them.

Creating slides:

```
     +----+----+------+
SLIDE: |  1 |  2 |  VOL |
     +----+----+------+
```
Auto-Slide Control

These buttons create slides from one note to another, or fades in or out of the volume.

To slide from C-2 to G-2:
Move the Edit Cursor to the line where the slide is to begin, in this example, line 000 and click SLIDE: 1 or SLIDE: 2.

```
+-----+----------     +-----+----------     +-----+----------
| 000 | C-2 10000     | 000 | C-2 10000     | 000 | C-2 10000
| 001 | --- 00000     | 001 | --- 00000     | 001 | --- 00000
| 002 | --- 00000     | 002 | G-2 10306     | 002 | --- 00108
| 003 | --- 00000     | 003 | --- 00306     | 003 | --- 00108
| 004 | --- 00000     | 004 | --- 00306     | 004 | --- 00108
| 005 | G-2 10000     | 005 | --- 00306     | 005 | G-2 10000
| 006 | --- 00000     | 006 | --- 00000     | 006 | --- 00000
 Original Track          Slide: 1             Slide: 2
```

SLIDE: 1 creates one smooth slide to the next note, using command 03.
SLIDE: 2 slides to the second note and then plays the second note. Use Commands 01 or 02 for the slide.

CREATING VOLUME SLIDES:

VOL (volume) creates volume slides or fades and other effects. You must position the Edit Cursor between the "C" commands, that is, between lines 9 and 14 in this example.

```
+-----+----------               +-----+----------
| 009 | --- 00C50  start volume   | 009 | --- 00C50
| 010 | --- 00000                 | 010 | --- 00C47
| 011 | --- 00000                 | 011 | --- 00C44
| 012 | --- 00000                 | 012 | --- 00C40
| 013 | --- 00000                 | 013 | --- 00C37
| 014 | --- 00C34  end volume     | 014 | --- 00C34
            Volume Slide Results
```

CHORD ENTERING AID:

```
+-------+---+
| CHORD |RST|
+-------+---+
```
Easy Chords

The CHORD button offers help for entering chords. You must still know which notes of a chord you want to use, but OctaMED-Pro will place them on the tracks for you.

For example, to enter a C major chord using the 1st, 3rd, and 5th notes:

Select CHORD Turn on the Edit Mode.
Select the tracks where you want chords notes. Use the SELECT: 0- F buttons.
The first note of the chord always starts on the current track and extends right.
Press the Q key (C note) and hold it down.
Press the E key (E note) holding both keys down.
Press the T key (G note) and release all the keys.

On the CHORD button there is a small RST (reset) gadget. When you select it,the Edit Cursor returns to the initial track and advances one line after entering a chord.You can also use CHORD function with MIDI.

ECHO EFFECTS:

```
          +---+    +--+
NOTE ECHO DIST |2  | MIN |1 |     Echo Setet
          +---+    +--+
```

Given the setting above, the following echo effect would be produced:

```
+-----+-----+------
| 000 | G-1 | 10000   the initial note full volume
| 001 | --- | 0000
| 002 | G-1 | 10C32   1/2 volume
| 003 | --- | 0000
| 004 | G-1 | 10C16   1/4 volume
| 005 | --- | 0000
| 006 | G-1 | 10C08   1/8 volume
| 007 | --- | 0000
| 008 | G-1 | 10C04   1/16 volume
| 009 | --- | 0000
| 010 | G-1 | 10C02   1/32 volume
| 011 | --- | 0000
| 012 | G-1 | 10C01   1/64 volume
```

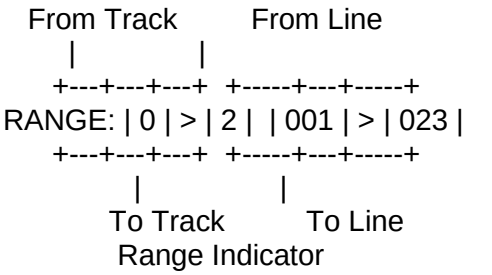
Echo will only put notes in empty note positions.

To use the echo effect:
Turn the Edit Mode on.
Select the range to affect.
Click NOTE ECHO.

DIST (distance) is the number of lines between echoes.

MIN is the minimum volume of an echo, echoes with lower volume will not be generated.

RANGE: After you have defined a range, the gadgets in the lower right corner of the panel display the limits of the range.



The example above shows a range set from line 001 of track 0, to line 023 of track 2.

BLOCK EDITOR:

Although OctaMED-Pro can display music in traditional notation, you will discover OctaMED-Pro's BLOCK EDITOR offers a better way to work. Here you enter notes and commands, define ranges, and edit the block. The BLOCK EDITOR notation is easily interpreted by the computer and allows controls that would be impossible to describe using a traditional notation system.

```
      Track 0     Track 1     Track 2     Track 3
+-----+-----------+-----------+-----------+----------
| 000 |  C-1 10000 |  E-1 10000 |  G-1 10000 |  --- 00000
| 001 |  --- 00000 |  --- 00000 |  --- 00000 |  --- 00000 <-- Line 001
| 002 |  C-1 10000 |  C-1 10000 |  C-1 10000 |  C-1 10000
| 003 |  --- 00000 |  --- 00000 |  --- 00000 |  --- 00000
| 004 |  C-1 10000 |  C-1 10000 |  C-1 10000 |  C-1 10000
| 005 |  D-2 10000 |  F#2 21370 |  A-2 20000 |  D-3 10000
                  Blocks and Tracks
```

The BLOCK EDITOR is the default screen when you start OctaMED-Pro. It is the large black area with all numbers, mostly zeroes, occupying the lower two-thirds of the screen.

Along the left edge of the BLOCK EDITOR is a column of three digit numbers from 000 to 063. These are line numbers. The vertical columns to the right of the line numbers are tracks. By default there are four tracks when OctaMED-Pro opens. Tracks contain the notes and instructions for OctaMED-Pro. Songs play from top to bottom. Every event that is on the same horizontal line plays at the same time.
There are two string gadgets at the bottom of the panel. You can enter a name for the block in the left string gadget. On the right side you can enter a song name.

NRM (normal), the gadget in the extreme lower right corner, is an assist during real-time note entry. If you click this, it will cycle to 2/3 or 1/2 and back to NRM. These are fractional speeds you can use to slow the playing by two-thirds or half the normal.
MEM (memory), also at the bottom of the screen, displays the total amount of memory and memory still available.

THE EDIT BAR AND EDIT CURSOR:

If you are using the default colors, there is a dark gray bar which runs horizontally across the middle of the editor. This is the Edit Bar. When you press the left or right cursor keys, you will see an orange box that moves along the Edit Bar. This is the Edit Cursor. When you press the cursor up or down keys, the orange box does not move, but the columns of numbers in the BLOCK EDITOR scroll up or down. The cursor keys let you put any note or command inside the Edit Cursor. There are also many keyboard shortcuts for moving the block and Edit Cursor. Refer to the appendices for a list of the short cuts.

The ANATOMY OF AN OCTAMED-PRO SCORE:

The smallest playable musical unit in a song is a note. A note is one horizontal line in one track. It often looks something like this:

C#1 10000

It may also look more complex, each space filled with different numbers.

C#21A1178

Below is a single note with all of its parts labeled:

```
          Instrument numbers
           | |
Note name    | | Command Numbers
      |    | | | |
      C # 2 1 A 1 4 3 7
         |       | |
      Octave      Command arguments
```

The note above is then C#, played at the second octave. Instrument number 1A plays it with medium vibrato.

Character 1 - The note name.
Character 2 - Sharp or natural. OctaMED-Pro does not use flats.
Character 3 - The octave.
Character 4 - Blank unless you are using a two-digit instrument.
Character 5 - The instrument number that plays the note.
Character 6 - Command.
Character 7 - Command.
Character 8 - A command argument.
Character 9 - A command argument.

Lines and tracks are units of music larger than notes. As mentioned, lines are simultaneous events arranged horizontally on the screen. Tracks are the vertical columns. You can think of each track as a separate microphone input. For example, imagine you are writing a song and you want to use a piano, bass guitar, drum, and lead guitar. You could put all the notes for the piano on one track, the bass notes on another, the drum on a third, and the lead on the fourth.

OctaMED-Pro can control as many as sixteen tracks. When you are using only internal sounds or sampled sounds, you can use only four tracks (or eight, if the Split Channel Mode is active). The remaining tracks are for MIDI use. This is not as limiting as it sounds. In practice, many instruments can share a single track.
When you start OctaMED-Pro, the group of 64 lines and 4 tracks seen when you scroll the screen with the cursor keys is a block. In many ways blocks are the most important unit of an OctaMED-Pro song. A block does not have a counterpart in traditional music, but it is somewhat like a bridge, verse, or chorus. Blocks can have as many as 3200 lines and 16 tracks. They may be played in any order and used many times in a song. Blocks are numbered 00 to 99,so a song may have up to 100 blocks. However,remember a block can play many times in a song,so the Play Sequence List could be considerably longer than the number ofblocks.
The largest OctaMED-Pro unit is the song. Although the Multi-Song Module, discussed in the STATUS BAR document, is technically larger it is not a functional part of the music. A song is really nothing more than a list of block numbers arranged in the order you want them to play. The list of blocks, called the Play Sequence List, may have up to 256 events. Discounting memory limitations, a song using the maximum number of sequences, lines, and tracks, could have millions of notes.

KEYBOARD INPUT:

If an instrument name is visible in the instrument gadget on the STATUS BAR, it is the current instrument and you can play it from the keyboard. Not all the keys will play notes. The playable keys are arranged somewhat like the keys on a piano keyboard:

```
             2 3   5 6 7   9 0   ´ \
Higher Octave ->  Q W E R T Y U I O P [ ]
               S D   G H J   L ;
Lower Octave -->    Z X C V B N M , . /

               ^-------------^
               C D E F G A B C <--Note Name

                 An Octave
```

The bottom row of keys from "Z" to "/", and the upper row from "Q" to "]", correspond to the white keys on a piano keyboard. The rows above them are the black keys, sharps and flats. The lowest natural key is "Z" and the highest is "]".

If there is an instrument in the current position and you press the "Z" key, you will hear the lowest C note for this instrument. Press the "X" key and a D note will play. Continue playing up the scale to "/", an E note. The bottom row has two notes more than an octave. Now press the keys from "Q" to "]". Notice that the "Q", "W", and "E" keys repeat sounds of the last three keys in the lower row. This is because the "Q" key is a C note and begins a second octave. There are about two-and-a-half octaves available from the keyboard of the 5 octaves possible with some instruments.

Pressing the function keys F1 through F4 raises and lowers the octave playable from the keyboard. There is a gadget on the STATUS BAR that shows which two octaves are currently selected.

To enter the notes into a song as you play them, click the Edit Mode button (the E button) on the STATUS BAR.

You enter or change the letter names of notes, the octaves, instrument and command numbers by positioning the Edit Cursor on the number and typing the information. An exception is when you need to use the fifth number for instrument numbers from 10 to 1V.

THE FIFTH NUMBER IN THE NOTE:

```
  The fifth number.
  Usually this position is blank.
  |
C-21A000
   |
   Normal position.
```

Put the Edit Cursor over the normal position for a single digit instrument number.
Press and hold the Shift key and enter the second digit. A "1" will appear in the fifth slot with the alphanumeric character you pressed appended to it.

Because the Shift + (0 - 9) keys are used as Programmable Keys, to create instruments 11 through 19 you must press Amiga-Shift + (0-9). Since few songs use more than thirty-one instruments, this is seldom a serious problem.

GRAPHIC NOTATION EDITOR:

The OctaMED-Pro GRAPHIC NOTATION EDITOR offers an alternative to the Tracker music format. From here you can enter, edit, print and play songs with the mouse using a graphic interface. The editor displays the music one measure at a time in a traditional bass and treble clef staff. This editor can be quite useful when entering songs from sheet music, especially if you do not read music. You need only place the note on the lines and spaces until the screen matches the sheet music. Standard notation can be useful when working with MIDI as well. The GRAPHIC NOTATION EDITOR displays one line of the BLOCK EDITOR as a sixteenth note, so a quarter note is 4 lines long on the BLOCK EDITOR display. The editor displays one measure of music at a time.

```
+-----+-----------+-----------+----------
| 000 | C-1 10000 | E-1 10000 | G-1 10000 <--- A sixteenth Note
| 001 | D-1 10000 | F#1 10000 | A#1 10000
| 002 | E-1 10000 | G#1 10000 | C-2 10000
| 003 | F-1 10000 | G-1 10000 | C#1 10000 <---+
| 004 | D-1 10000 | F#1 10000 | A#1 10000     | A quarter note
| 005 | E-1 10000 | G#1 10000 | C-2 10000     |
| 006 | F-1 10000 | G-1 10000 | C#1 10000 <---+
 Block Note and Graphic Representation
```

GHOSTING AND HIDING INDIVIDUAL TRACKS:

While using the GRAPHIC NOTATION EDITOR, a song with several tracks and many notes can easily become cluttered and difficult to read. To solve this, you can ghost or turn off individual tracks. This feature makes editing much easier. It is a good idea to put the bass line, drums, and various other song components on the same tracks throughout the song. Then, you can turn on or ghost parts separately.

```
         +--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+
SHOW TRACKS: | 0| 1| 2| 3| 4| 5| 6| 7| 8| 9| A| B| C| D| E| F| Track

                          |--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+ selection
GHOST TRACKS:| 0| 1| 2| 3| 4| 5| 6| 7| 8| 9| A| B| C| D| E|F|| Panel
         +--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+
SEL. TRACK:  | 0| 1| 2| 3| 4| 5| 6| 7| 8| 9| A| B| C| D| E| F|
         +--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+--+
```

SHOW TRACKS turns on all selected tracks.
GHOST TRACKS ghosts all selected tracks.
SEL. TRACK selects a track and ghosts the others.

HIDE can also help simplify the display. It hides the notes of the current instrument. The editor plays the notes, but does not display them on the editor. For example, if the notes of a chord extend into the drum track, you can hide the drum instrument, and show only the chord notes.

```
    +---+---+---+---+---+-----+------+
PSET: | 1 | 2 | 3 | 4 | 5 | CLR | SAVE |
    +---+---+---+---+---+-----+------+
          Preset Selector
```

PSET: buttons allow you to set up to 5 combinations of selected and ghosted tracks, assign them to a button, and select these configurations with a single mouse click. For example, the following combinations might be useful:

Preset button 1 - all tracks.
Preset button 2 - only chords.
Preset button 3 - only the bass pattern.
Preset button 4 - the chords and the bass.
Preset button 5 - only the melody line.

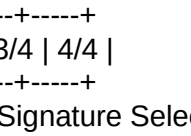
CLR erases the settings of the current preset button.

SAVING SETTINGS:

SAVE instructs OctaMED-Pro to save the following information with the song the next time you save it:

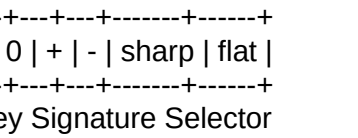
On, ghosted, and off track settings
Track selection
Time signature
Key signature
Instruments hidden
Instruments transposed

TIME SIGNATURES:



Time Signature Selector

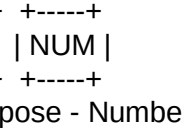
TS: selects the time signature. Measures can be in 3/4 (three quarter note beats to a measure) or 4/4 time (four quarter note beats to a measure).



Key Signature Selector

SIG: buttons select a key signature. First set the number of sharps or flats with the + and - buttons. Then click the appropriate button, sharp or flat.

INSTRUMENT NUMBERS AND TRANSPOSE:



Transpose - Numbers

NUM displays the instrument numbers above notes on the selected track.

T: is the display transposition value for this instrument. Use this as an aid to editing; for example, when you want to shift the melody one octave up, to separate it from the bass line. Octaves are 1-2, 2-4, (-12 or -24), but you can use any value. The GRAPHIC NOTATION EDITOR can display a bit more than 4 octaves, while OctaMED-Pro supports up to 5 octaves.

EDITING WITH THE MOUSE OR KEYBOARD:

Choose the Edit Mode on the STATUS BAR by selecting E. To enter notes with the mouse, select the track to edit with the SEL: TRACK buttons. The big black block is the cursor. You can move it with the right and left cursor keys.

Select the note length, whole, half, quarter, or eighth note. There are icons for these notes and their equivalent rests. If you need notes of different lengths (dotted or tied notes) you can add note lengths together by holding Shift and clicking additional notes. The L: gadget shows the length, in lines of BLOCK EDITOR display.

Next, position the note pointer on the staff where you want the note and click the left mouse button. If you hold the mouse button, you can hear the pitch of the note as you move it up and down the staff. The note names also appear in the NT: gadget as you move it.

When you release the mouse button, the note is placed in the song. If you have not selected a track, or have selected a track that does not exist, the MESSAGE LINE will display an error message.

INSERT and DELETE MODES:

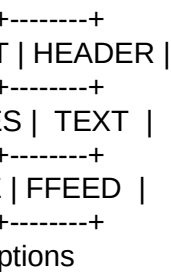
+-----+-----+
| INS | DEL |
+-----+-----+
Note Entry Mode

INS button turns on the insert mode. The note is inserted and the following notes are pushed to the right. The auto-advance cursor shows where the next note will be placed.

DEL when active, deletes the note you click on while the notes following it are moved to the left.

PRINTING:

The GRAPHIC NOTATION EDITOR will print standard notation, as well as the block style notation.



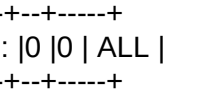
Print Options

HEADER, if selected, prints the song header. The header contains information about instruments, the Playing Sequence List, relative volumes and other information. It is printed as ordinary text.

NOTES prints the notes as a graphic. Any Preferences compatible printer should work. Change the printing format options from the Amiga Preferences screen.

TEXT prints the song in block format, as it appears on the OctaMED-Pro BLOCK EDITOR screen.
FFEED sends a Form Feed after each block is printed.

-->FILE redirects the output to a disk file instead of the printer. Enter the file name into the file requester. You can only redirect text, the block format file, and the header, not the graphic notation.



Print Range Selector

BLKS:0>0 and ALL select a range of blocks to print. If you select ALL, all blocks are printed. You can print a single block or group of blocks by specifying a range in the two string gadgets. The first number is the starting block, and the other, the ending block.

PRINT starts printing the song.

THE SYNTHETIC SOUND EDITOR:

The SYNTHETIC SOUND EDITOR can design waveforms and program the volume and waveform sequences of synthetic sounds.

USING SYNTHETIC SOUNDS:

The three main advantages of synthetic sounds are they do not require much memory, they can use a five octave range, and they can be programmed for a variety of special effects. If you attempt to duplicate the effects possible with sampled sounds you may be disappointed in the results. Synthetic sounds have their own unique quality and can sound great.

If you do not have an appropriate synthetic instrument for your purposes, the first step is to design a waveform with the tools found in the SYNTHETIC SOUND EDITOR. After you finish creating the waveform, you write a simple program that instructs the sound how to use the waveform. Finally, use the sound in your song as you would any instrument. There is a loop command, however, that is unique to synthetic instruments.

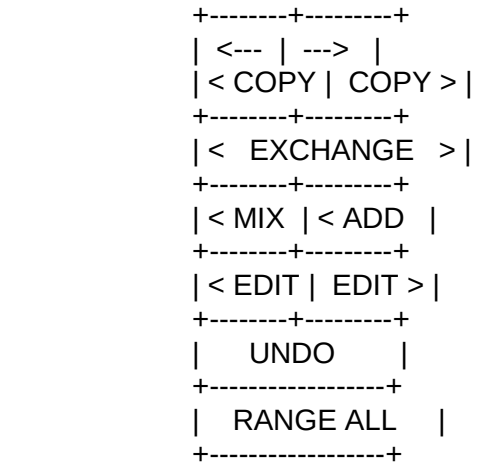
WAVEFORM EDITING:

To set up the SYNTHETIC SOUND EDITOR:

From the MENU PANEL select the INSTRUMENT PANEL.
Click the TYPE: SYNTH button to initialize a new synthetic sound.
From MENU PANEL select the SYNTHETIC SOUND EDITOR.
Turn off the Edit Mode from the STATUS BAR.

There are two graphic waveform displays. The one on the left is the master display. While you are designing the instrument, the waveform on this side is the current instrument and you may play it from the Amiga keyboard. The right display is for intermediate editing, and it can serve as a copy buffer.

Between the waveform displays is the Waveform Display Control Panel. On it are buttons for transferring and mixing waveforms between displays.



Waveform Display Control Panel

< COPY copies the right waveform to the left waveform display.

COPY > copies the left waveform to the right waveform display.

EXCHANGE swaps the two waveform displays from one side to the other.

MIX combines the two waveforms and creates an average mix in the left waveform display.

ADD is similar to MIX, but it does not average the waveforms, it adds them together. If the waveforms exceed the upper or lower limits, the editor truncates them.

< EDIT selects the left waveform display to be edited.

EDIT > selects the right waveform display to be edited.

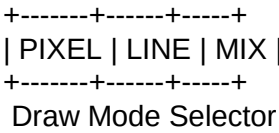
UNDO undoes the last editing operation.

RANGE ALL selects the entire current waveform as the range for editing operations.

DRAWING A FREEHAND WAVEFORM:

One of the easiest ways to create a waveform is just to draw it. If you press and hold the left mouse button with the cursor inside a waveform display, you can draw a waveform by dragging the mouse.

There are three drawing modes, PIXEL, LINE and MIX.



Draw Mode Selector

PIXEL puts a pixel wherever the mouse points.

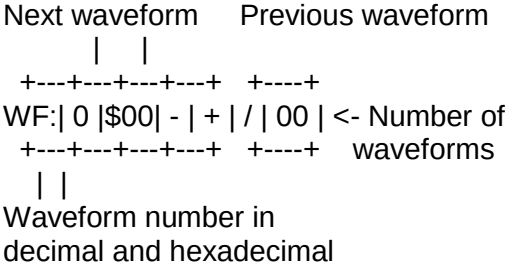
LINE draws a straight line between the point where you click the mouse and where you release it.

MIX Mode mixes new pixels or lines with the existing data.

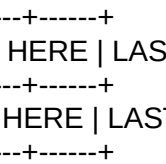
These mode selection buttons are below the RANGE ALL button.

MULTIPLE WAVEFORMS:

You can splice together up to sixty-four waveforms to construct a synthetic sound. Below the left waveform display, there is a set of buttons for moving between these waveforms:



Below these, there are four buttons to increase or reduce the number of waveforms.



Delete and Add Waveforms

ADD LAST adds a new waveform at the end of the waveform list.

ADD HERE inserts a new waveform at the current location, shifting the others.

DEL HERE deletes the current waveform.

DEL LAST deletes the last waveform in the list.

WAVEFORM LENGTH:

Synthetic sound waveforms can be any length of even numbered bytes from 2 to 128. To make the pitches harmonically compatible with other instruments use byte lengths of 2, 4, 8, 16, 32, 64 or 128. You can change the length with LEN: + and - buttons below the left waveform display. You may also click the string gadget and type in a value.

Basic waveforms types are available by clicking on their icons located at the bottom of the editor. The waveforms provided are: sine, saw up, saw down, pulse, random and triangle. When you select one it will appear in the current waveform display.

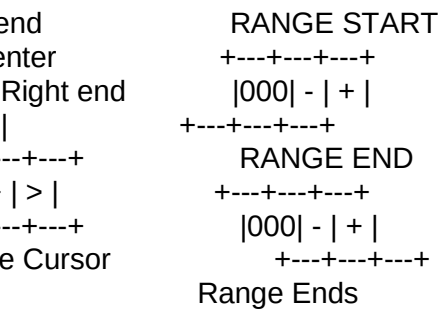
CLR clears the current waveform.

ALL clears all the information about waveforms in the SYNTHETIC SOUND EDITOR.

DEFINING A RANGE:

You can select just a part of the waveform, a range, that you want to confine an edit operation to. One way you can define a range is by dragging the mouse over the waveform display while pressing the right mouse button. The range will be highlighted in white. You can select the whole waveform display as a range by clicking RANGE ALL.

RANGE START and RANGE END buttons in the lower right corner can make precise corrections to the ranged area.



Range Cursor buttons help to define and clear ranges. Use them to set precisely the beginning or end of a range.

This < puts the Range Cursor to the left end of the waveform and sets the RANGE START and RANGE END string gadgets to 000.

This + puts the Range Cursor in the center of the waveform and sets the RANGE START and RANGE END string gadgets to half the length of the waveform

This > puts the Range Cursor to the right end of the waveform and sets the RANGE START and RANGE END string gadgets to the length of the waveform.

After you set one end of the range with the Range Cursor buttons, set the other end by clicking the appropriate RANGE START and RANGE END buttons. If there is an existing range, selecting any Range Cursor button will clear it.

RANGE OPERATIONS:

In the middle of the screen is this strip of buttons:

```
   +-----+------+-------+-----+-----+-----+---+---+
RNG: | CUT | COPY | PASTE | CLR | DBL | REV | < | > |
   +-----+------+-------+-----+-----+-----+---+---+
```

CUT works only on the left waveform. It cuts the selected area and moves it to the right waveform display.

COPY copies the selected range to the right waveform display, but does not cut it.

PASTE copies the range to the right waveform at the cursor position.

CLR clears the range.

DBL doubles the frequency by duplicating the range and compressing it horizontally to fit within the range width.

REV reverses the range.

< or > shifts the ranged data left or right.

STRETCH: stretches a section of the waveform from the Range Cursor position to one end of the waveform. For example:

Select a sine wave.
Position the cursor on the middle of the waveform.
Make STRETCH active.
Enter the amount to stretch.

A positive number stretches the point to the left. If the number is negative, it will stretch to the right.

VOL.CHG.: increases or decreases the volume of the selected range. First, select a range. Then click VOL.CHG.: Enter the percentage of volume change and press Return. For example, to cut the volume by 50% (one half) you should enter 50. To double the volume, enter 200.

TRANSFORM: creates a smooth transition between waveforms by generating the intervening waveforms.

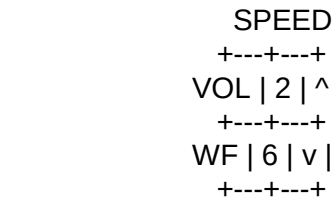
START marks the beginning of a transformation.

DO!! sets the end of a transformation and executes it.

To demonstrate:

Allocate nine new waveforms by clicking ADD: LAST 9 times.
Now you have ten waveforms.
Move to waveform 00, and select a pulse waveform.
Click TRANSFORM: START to mark the beginning of the range.
Move to the last waveform, 09.
Select a sine waveform.
Click TRANSFORM: DO!! to set the end and start the transformation.

Click the + and - buttons and look at waveforms 00 through 08. You will notice there is now a smooth transition from the pulse wave to the sine wave.



SPEED: lets you set two synthetic sound arguments, the rate at which the sound fades and the rate at which the sound plays. Select the number to the right of the argument you want to change and use the arrow buttons to increase or decrease the value.

VOL sets the speed at which the sound decays after sounding. The larger the number, the slower the decay speed.

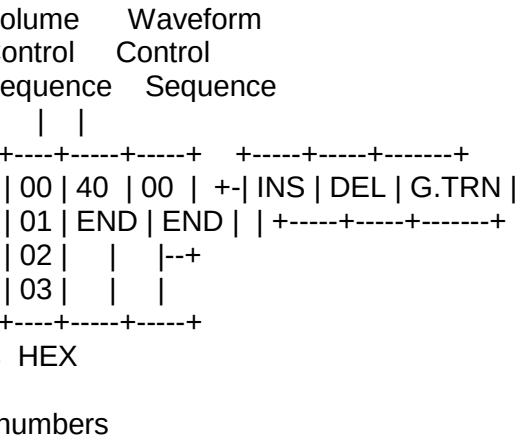
WF sets the speed at which the waveform plays. The higher the number, the slower the sound.

THE SYNTHETIC SOUND PROGRAMMING LANGUAGE:

Please read this section carefully. When you use any programming language improperly, it is possible to lock up your computer. This is also true of OctaMED-Pro's Synthetic Sound Programming Language.

The Synthetic Sound Programming Language can control the volume, pitch, vibrato, arpeggio, and other arguments of synthetic sounds. The language uses keyword commands, often with an additional argument.

Programming uses two lists of command numbers. The lists are displayed in a window below the right waveform display. In the two leftmost columns there are program line numbers in decimal and hexadecimal. The third column contains the Volume Control Sequence, and the rightmost column is the Waveform Control Sequence.



Synthetic Sound Program Editor

The maximum length of the lists is 127 ($7F) entries. Both lists always terminate with an END instruction. You can scroll the list up and down or move left and right with the cursor keys. There are six possible cursor locations, three for each list. All instruction arguments are hexadecimal numbers.

When entering commands, the cursor should be on the leftmost position of the list. Change the values by putting the cursor over the number you want to change and entering a new value. Enter commands and numbers from the keyboard.

INS inserts entries to the list. You can also use the Return key.

DEL deletes entries. The editor renumbers Jump commands when you insert or delete an entry.

G.TRN (generate transform) automates transformations in the Sequence List. For example, if the following lines are already in the Waveform List, you can create a slide from 00 to 06 by placing the cursor on line 01 and click G.TRN. A smooth transition from 00 to 0F will be generated.

```
+-----+----+-----+-----+
| 000 | 00 | 40  | 00  |
| 001 | 01 | END | 0F  |
| 002 | 02 |     | END |
+-----+----+-----+-----+
```

Below are some examples using the Synthetic Sound Commands. You should also look in the appendix for details and examples for each Synthetic Sound Command.

VOLUME CHANGE SEQUENCE EXAMPLES:

Example 1

```
+-----+----+-
| 000 | 00 | 40  Initialize the volume at 64 (hex $40)
| 001 | 01 | CHD  Command:  Volume Change Down
| 002 | 02 | 03  Argument: (speed = 3)
| 003 | 03 | END  Command:  End
```

Example 2

```
+----+-----
| 00 |  00 |  Initialize the volume at 0
| 01 | CHU |  Command:  Volume Change Up
| 02 |  07 |  Argument: (speed = 7)
| 03 | WAI |  Command:  Wait
| 04 |  10 |  Argument: (wait 10 pulses)
| 05 | CHU |  Command:  Volume Change Up
| 06 |  00 |  Argument: (speed = 0) stop changing volume
| 07 | WAI |  Command:  Wait
| 08 |  70 |  Argument: (wait $70 pulses)
| 09 | CHD |  Command:  Volume Change Down
| 0A |  01 |  Argument: (speed = 1) slow
| 0B | END |  Command:  End
```

Example 3

```
+----+-----+
| 00 | 40  |  Command:  Volume = 64 (hex $40)
| 01 | 30  |  Command:  Volume = 48 (hex $30) without a command,
| 20 | 20  |  Command:  Volume = 32 (hex $20) the values are
| 03 | END |  Command:  End                   volume changes
```

Example 4

```
| 00 |  40 | Initialize the volume at 64 (hex $40)
| 01 | CHD | Command:  Volume Change Down
| 02 |  01 | Argument: (speed = 1)
| 03 | WAI | Command:  Wait
| 04 |  20 | Argument: (wait $20 pulses)
| 05 | CHU | Command:  Volume Change Up
| 06 |  01 | Argument: (speed = 1)
| 07 | WAI | Command:  Wait
| 08 | 20  | Argument: (wait $20 pulses) again
| 09 | JMP | Command:  Jump (go to)
| 0A |  01 | Argument: (jump to line number 01)
| 0B | END | Command:  End
```

WAVEFORM SEQUENCE EXAMPLES:

The Waveform Sequence is the master sequence while the volume sequence is a kind of slave sequence.

Example 1 (the simplest case)

```
+----+-----+
| 00 |  00 | Command:  Set waveform number 00
| 01 | END | Command:  End
```

Example 2

```
+----+-----+
| 00 | VBS | Command:  Set Vibrato Speed
| 01 |  40 | Argument: (speed = $40)
| 02 | VBD | Command:  Set Vibrato Depth
| 03 |  02 | Argument: (depth = 2)
| 04 |  00 | Command:  Set Waveform Number 00
| 05 | END | Command:  End
```

Most commands are processed and then the next command is immediately fetched. However, some commands wait for the next timing pulse. Otherwise, the computer would do nothing but execute sequence lists and hang up. Be sure that all loops contain a command that waits for the next timing pulse. These commands are WAI (Wait), VOL CHG (plain number in the Volume List) and a Set Waveform Sequence (does not use a keyword).

Example 3

```
+----+-----+
| 00 | ARP | Command:  Start Arpeggio Sequence
| 01 |  00 | Argument: Root note
| 02 |  03 | Argument: A third from the root   (a minor)
| 03 |  07 | Argument: A seventh from the root (chord  )
| 04 | ARE | Command:  Arpeggio End Sequence
| 05 | VBD | Command:  Set Vibrato Depth
| 06 |  06 | Argument: (depth = 6)
| 07 | VBS | Command:  Vibrato Speed
| 08 |  40 | Argument: (speed = $40)
| 09 |  00 | Command:  Set Waveform Number
| 0A |  01 | Command:  Set Waveforms 01-0A (one timing pulse)
| 0B |  02 |     "     "     "      02     (per waveform    )
| 0C |  03 |     "     "     "      03
| 0D |  04 |     "     "     "      04
| 0E |  05 |     "     "     "      05
| 0F |  06 |     "     "     "      06
| 10 |  07 |     "     "     "      07
| 11 |  08 |     "     "     "      08
| 12 |  09 |     "     "     "      08
| 13 |  0A | start sliding back to number 01...
| 14 |  08 |     "     "     "      08
| 15 |  07 |     "     "     "      07
| 16 |  06 |     "     "     "      06
| 17 |  05 |     "     "     "      05
| 18 |  04 |     "     "     "      04
| 19 |  03 |     "     "     "      03
| 1A |  02 |     "     "     "      02
| 1B |  01 |     "     "     "      01
| 1C | JMP | Command:  Jump
| 1D |  09 | Argument: (go to position 09 restart waveform change)
| 1E | END | Command:  End
```

The following loop would hang the computer:

```
+----+-----+
| 00 | CHU | Command:  The CHU command does not wait
| 01 |  02 | Argument: (speed = 2)
| 02 | JMP | Command:  Jump
| 03 |  00 | Argument: (go to to position 00 -> HANG
```

While this one would not:

```
+----+-----+
| 00 | WAI | Command:  Wait
| 01 |  02 | Argument: (wait 2 pulses)
| 02 | JMP | Command:  Jump
| 03 |  03 | Argument: (go to 03)
```

EXECUTION SPEED:

The synthetic sound handling routine is called once on every timer pulse, usually 6 times a note. You can change this by adjusting the Secondary Tempo on the PLAY PANEL.When the speed argument is 1, a command is processed on every interrupt. If the speed is 2, the process happens every second pulse and it runs at half the speed.You can set the initial speed of execution with the two SPEED: buttons.During program execution you can change the speed with the SPD command.

SAVING AND LOADING SYNTHETIC SOUNDS:

Load and save synthetic sounds using the file requester and buttons on the FILES PANEL or with SAMPLE LIST EDITOR, as you would any instrument. When you save synthetic sounds, the decay values are saved with the instrument. When they are loaded, information about the sound will be displayed on the MESSAGE LINE.

HYBRID SOUNDS:

Hybrid sounds are sampled sounds that use the same program language as synthetic sounds. You can use all synthetic sound program commands with hybrid sounds except Set Waveform. The waveform is always the sampled sound, which you can edit with the SAMPLED SOUND EDITOR. You can add more synthetic waveforms for use with EN1, EN2, or VWF commands.

SAMPLE SOUND EDITOR:

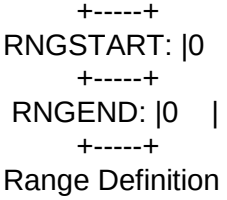
OctaMED-Pro has a SAMPLE SOUND EDITOR for recording and editing samples. You can use samples with 2, 4, 6 or 7 octaves in OctaMED-Pro, but the seventh octave will not play. Open the SAMPLE SOUND EDITOR by clicking the SMPED button on the MENU PANEL.

If there is a sampled instrument in the current instrument position, the SAMPLE SOUND EDITOR will display its waveform. The length of the sample, in bytes, is shown in the top right corner of the sample display area.

BUFFSIZE: is the size of the sample buffer in bytes. Initially it is the same size as the sample length. To increase the buffer size, click the gadget and type in a new value. A prompt will ask if you want to clear the sample, or retain it in memory. The maximum buffer size is 131072.

SELECTING A RANGE:

Modifications you made to sampled sounds are usually limited to just a portion of the waveform. You can set a range that defines the portion by clicking on the waveform display and dragging the right mouse button. The range you define will be highlighted. After you select a range, you can move the start and end by holding the Shift key while dragging the mouse.



Range Definition

RNGSTART: and RNGEND: show the start and end of the range in bytes.You can change these points by entering new values in the string gadgets.

PLAYING A SAMPLE:

Waveform Play Controls

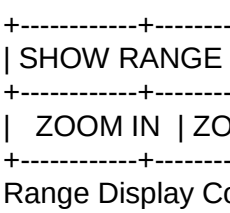
PLAY DISPLAY plays whatever part of the sample that fills the display.

PLAY RANGE plays only the part of the sample in a selected range.

You can play the complete sample with any note key on the keyboard.

ZOOMING:

Zooming magnifies a part of the waveform. This is essential for accurate editing. When a sample is magnified in the display, you can scroll the waveform horizontally with the left and right cursor keys. At the bottom of the sample display is a pink bar. The bar shows the size and position of the displayed portion of the sample relative to the whole sample.



Range Display Controls

There are several ways to zoom into the sample:

ZOOM IN magnifies the sample so you can see more detail. Repeated clicks will take you deeper into the sample.

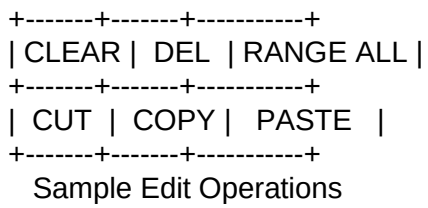
ZOOM OUT reverses a ZOOM IN so you can see a wider view of the sample.

SHOW RANGE magnifies a selected range so that it fills the display.

SHOW ALL restores the whole sample to the display.

EDITING OPERATIONS:

You must have a range selected for these editing operations to work.

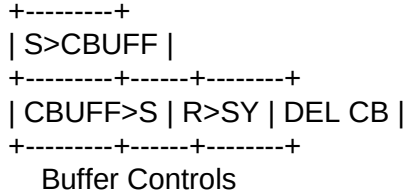


Sample Edit Operations

CLEAR Clears the current range.
DEL deletes the range, but does not copy it to the copy buffer.

RANGE ALL selects the part of the waveform visible in the editor as the range.

CUT Cuts the range and puts it into the copy buffer.
COPY Copies the range to the copy buffer.
PASTE Pastes the contents of copy buffer at the Edit Cursor position.



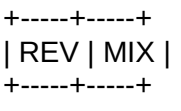
Buffer Controls

DEL CB deletes the copy buffer and frees the memory.

S>CBUFF copies the sample to the copy buffer.
CBUFF>S copies the copy buffer to the sample display.

You can use the buffers as a simple UNDO function. If you are experimenting with a sample, make a snapshot with S>CBUFF. Make any changes you want. If you are not satisfied, you can get the original sample back by clicking CBUFF>S.

R>SY copies the selected range to the SYNTHETIC SOUND EDITOR. The range should be from 2 to 128 bytes long.

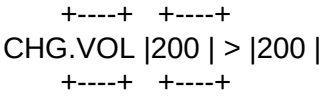


REV reverses the range left to right.

MIX combines two samples. The source sample must be in the copy buffer. Position the Edit Cursor at the point where you want the second sample to start and then click MIX. Check the RNGSTART: and RNGEND: gadgets. If they are not equal, you have unintentionally defined a range. If you drag a range and then click MIX, only the area selected in range is affected.

FREEHAND lets you draw the waveform with the mouse. Click the FREEHAND button and hold the left mouse button in the display area.

VOLUME:



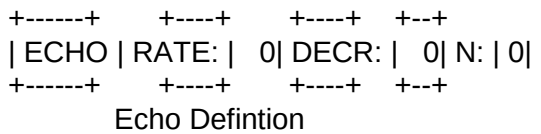
Beginning and Ending Volume Definition

CHG.VOL. changes the volume of the sample or range. One useful purpose of this function is to create fades. Next to the CHG.VOL. button are two integer gadgets. The left one is the starting volume, and the right is the ending volume. They are percentages of the existing volume.

Examples:

To double the volume, set both start and end volume to 200.
To halve the volume, set both start and end volume to 50.
To fade out, set start to 100 and end to 1.
To fade in from half volume, set start to 50 and end to 100.

After you have entered the start and end volumes, click CHG.VOL. If you increase the volume too much, the sound will be distorted.



Echo Defintion

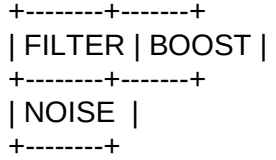
ECHO is best learned by experimenting. Echoes are controlled by three values:

RATE: is the speed of the echoes.

DECR: is the decay rate, how quickly the sound fades.

N: is the number of echoes. It usually should be low, 1-10, but you can experiment with higher values.

You may have to enlarge the buffer to extend the work space for the echoes. Enter a larger value into the BUFFSIZE gadget. The MESSAGE LINE will ask you if you want to clear or retain the buffer contents. Press "R" on the keyboard to retain the sample.



Sound Quality Controls

FILTER reduces noise by smoothing the sample. Select a range to filter, and click FILTER.

BOOST is the opposite of FILTER and is used in the same way. It makes the affected area "brighter". The noise becomes more audible, too.

NOISE adds noise to a sample. Select a range, enter a noise level, 1 - 127, in the integer string gadget, and click NOISE. This can create wind or sea effects. The noise generator can also be the beginning of a more complex instrument when used with FILTER, BOOST, ECHO, etc. Using these effects, it is possible to create excellent instruments without a sampler.

SAMPLE PITCH:

On the right side of the screen there are two gadgets labeled PITCH. One displays the sample rate and the other the note name, i.e. C-1. The sample rate is the speed the sample plays. You can change the pitch of a sample by changing its sample rate.

Example:

Assume the sample has a period of 428 (C-2), and you would like to transpose it to play G-2 when you press the C-2 key.
Change the note in the DEST gadget to G-2, either by clicking the gadget and typing the new value (285), or click the note name next to the PITCH and press the G-2 note on the keyboard (the t key).
Click the CHANGE RATE button and the sample will transpose.

```
+-------+-------+
| OCT ^ | OCT v |   Sample Octave Transposition
+-------+-------+
```

OCT ^ and OCT v These buttons raise or lower the sample by one octave. They change the sample rate without using the method described above.

SAMPLING:

If you have sampling hardware,you can use OctaMED-Pro's sample recorder.

```
+---------+--------+
| MONITOR | RECORD | Sample Controls
+---------+--------+
```

MONITOR displays the real-time input from the sampler. The sampler disables multi-tasking. The purpose of the monitor is to assure the sound is at a volume level that will not cause distortion in the recording. Click the mouse button to stop monitoring.

RECORD begins the sampling process. Click it and the real-time sample waveform appears. Then, click the left mouse button and the screen will blank and sampling begins. Sampling will stop when the sample buffer is full. You can also interrupt sampling with the right mouse button.

You can change the sampling period by entering a new value into the PITCH string gadget. To double the sampling speed, enter 214. You can also change it by clicking on the note, holding the button, and entering a new note from the keyboard.

SETTING LOOP POINTS:

OctaMED-Pro has two blue loop markers for selecting loop range. LOOP ON selects and de-selects looping. When looping is on, you can change the loop point by dragging the markers with the mouse. There are buttons to help find good loop points:

```
+---------+---+---+---+---+----+----+
| LOOP ON | S | E | < | > | <0 | 0> |
+---------+---+---+---+---+----+----+
```
Loop Editor

The S and E buttons determine if the other buttons will affect the starting or ending point. The ZOOM IN and OUT buttons are useful when defining ranges, to examine the sample in detail.

S selects start marker.
E selects end marker.
< moves the selected marker 2 bytes left.
> moves the selected marker 2 bytes right.
<0 moves the selected marker left until a zero is found.
0> moves the selected marker right until a zero is found.

D.PIXELS simplifies the display and draws the waveform more quickly. It does not alter the sound in any way.

SAVE FORMAT:
+----------+
| SAVE IFF |
+----------+
Save Format

In the bottom right corner, there is a button for selecting the save format of sampled sounds. All instrument saves will use the format selected here.

RAW is the default format. If you do not select SAVE IFF, OctaMED-Pro will save sampled instruments in this format.

SAVE IFF button does not save the instrument, but instructs OctaMED-Pro to use this format for all subsequent saves done in the FILES PANEL. The files will be in the IFF 8SVX format. OctaMED-Pro can use either format, but some programs cannot.

If you have defined a Repeat and Repeat Length in the INSTRUMENT PANEL for this sound, these values are saved with the sample.

SAMPLE LIST EDITOR:

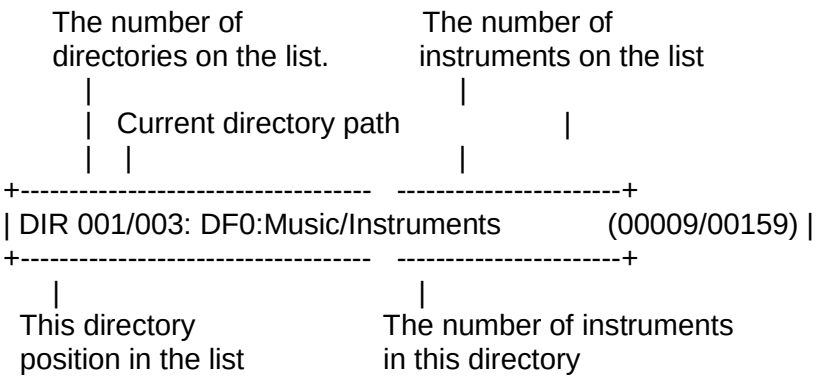
As you work with computer music you will acquire large numbers of instruments in directories on different disks. Loading the right instruments with songs can be a difficult task. OctaMED-Pro simplifies this job with the SAMPLE LIST EDITOR and a file called MED_Paths.

MED_Paths is a text file containing lists of instruments and their path descriptions. With this file, OctaMED-Pro can locate the proper instruments and load them when needed.

OctaMED-Pro loads MED_Paths when starting up. MED_Paths must be in the same directory as OctaMED-Pro or in the S: directory. MED_Paths could be created with any text editor, but it is much easier to do with the OctaMED-Pro SAMPLE LIST EDITOR.

To make a MED_Paths file, use the FILE PANEL file requester to locate the directory of instruments you want to organize. Then, open the SAMPLE LIST EDITOR from the MENU PANEL by clicking the SLIST button.

At the top of the SAMPLE LIST EDITOR is a strip of text, providing the following information:



Below this strip are two areas for lists. On the left, the instruments are listed. On the right are the path lists for the instruments. If there is no MED_Path file, the lists will be blank.

Separating the list is a column of buttons:

```
 NAME
+---+---+
|ADD|DEL|
+---+---+
```

ADD adds the current instrument listed on the STATUS BAR.
DEL deletes any item in the instrument list.

```
 DIR
+---+---+
|ADD|DEL|
+---+---+
```

ADD adds the directory displayed on the FILES PANEL.
DEL deletes any item in the directory path list.

NAME DEL and DIR DEL work the same way. Click the button to highlight it. The MESSAGE LINE will prompt you to select a directory or instrument to delete from the list. Press the Esc key if you want to cancel the operation. After you make your selection, the entry is removed from the MED_Path list. It is only deleted from the list, not from the disk.

```
  FILE
+---------+
|SAVE INST|
+---------+
|SAVE ALL |
+---------+
| DELETE  |
+---------+
```

SAVE INST saves the instrument to the displayed directory and adds the name to the instrument list.

SAVE ALL saves all the instruments from a song to the displayed directory. This is a quick and easy way to strip all the instruments from a song.
DELETE erases the name from the list AND DELETES THE FILE!

SAVE LIST
+-----+-----+
|->CD |-> S:|
+-----+-----+

CD saves the MED_Paths file to the current directory.

S: saves the MED_Paths file to the S: directory.

CREATING A MED_PATHS FILE:

When you open the SAMPLE LIST EDITOR the first time, the two lower panels will be empty. Step one is to begin creating instrument lists. Then make the MED_Paths file to tell OctaMED-Pro where the instruments on the list are.

Here is the basic procedure:

If your instruments are on floppy disks, insert the disk into the drive.

Use the file requester to locate and open an instrument directory.

Click the ADD DIR button.
The path to the directory will appear on the left side of the editor. The list of instruments will be on the right.

Examine the list for files that are not instruments, and delete file names that are not instruments by clicking on INSTR DEL and then the file name.

Repeat these steps for instrument files in other directories or on other disks, calling up the directories with the requester and adding them until you have all your instrument directories on the MED_Paths list.

After you have finished making the list,save with one of the following:

SAVE LIST S: saves it in your S: directory as MED_Paths.
SAVE LIST CD saves it in the current directory as MED_Paths. If you use CD, be sure you are in the directory where you start OctaMED-Pro.

You can display any instrument directory on the right list by clicking its path description on the display. The strip at the top of the SAMPLE LIST EDITOR tells you which list is current.

Any instrument name you click will load into the current instrument position and can be played from the keyboard. This is a fast way of finding the right instrument when writing music.

If you put new instruments in a directory, you can update MED_Paths by deleting the directory from the list and adding it again:

Click DIR DEL and then the directory on the list.
Locate the directory with the file requester and click DIR ADD to list all the instruments in the directory. Click SAVE S: or SAVE CD.

If you only want to add a few instruments,Locate the directory of the new instruments with the requester,Load the instrument using LOAD: INSTR on the FILES PANEL,List this directory in the SAMPLE LIST EDITOR.
Click the INSTR ADD button to add the instrument name to the list.
The Repeat and Repeat length values are added to the file name.
They will have the form: Asia::480/5362).

Previous entries with the same name are deleted from the list.
You can change the path file. If you use the FILES PANEL file requester to select MED_Paths, the MESSAGE LINE will ask if you want to (R) Replace or (A) Append it. If you press "R", the MED_Path list is removed from memory and one you have selected will load. If you press "A", the original path list is preserved and the contents of the new one appended to it.

MIDI INSTRUMENTS:

If the current instrument is a MIDI instrument, when added to the list, the instrument name will be in a form like the following: E.Piano::M6/4
This example shows, first instrument name, next the channel number, then the MIDI preset number. When you load the instrument, OctaMED-Pro sets the MIDI channel and MIDI preset number. There is, of course, no instrument file in this directory, it is a "dummy" entry. You may want to create an empty directory for these dummy MIDI instrument entries.

OCTAMED-PRO COMMANDS AND EFFECTS:

OctaMED-Pro commands provide the details and effects necessary for more subtle and sophisticated music. In general, commands accomplish this by affecting the way notes play. Some commands can be used to control sampled sounds and MIDI devices and others work only with sampled sound. The effect of the command can be quite different depending on the type of sound it is controlling.

A command is an extension to the basic note description and it is often, but not always, on the same line as the note it affects. Insert commands into the song from the BLOCK EDITOR using the same techniques for entering notes. Entering the commands may be a bit easier, if you turn off the auto-advance feature with Ctrl-A or click the SP gadget on the STATUS BAR.

Below is an example of a single note from a song. The first two characters, C and #, are the note name, C sharp. The first two digits, 2 and 1, mean that the C# will be played at octave 2 by instrument 01. If you have worked with any earlier versions this should be fairly clear to you.

```
          Instrument numbers
           | |
Note name     | | Command Numbers
      |    | | | |
      C # 2 1 A 1 4 3 7
         |       | |
      Octave      Command arguments
```

This section concerns the remaining four digits, 1, 4, 3, and 7. The first two digits in this example, the 1 and 4, are the command number. It instructs OctaMED-Pro to alter the normal way of playing the sound. The next two digits,3 & 7, are the argument,and provide information on the limits of the command.Below are the command descriptions.The first section contains those that affect the song generally, for example, Stop Playing, or that affect sampled sounds. The second section is for MIDI commands. In the following explanations some commands are indicated as ProTracker commands. When loading Protracker Modules, OctaMED-Pro makes command conversions automatically.

SONG AND SAMPLED INSTRUMENT COMMANDS:

ARPEGGIO 00
Changes the pitch six times between three different pitches during the duration of the note. It can create a chord sound or other special effect. Arpeggio works better with some instruments than others.

The first pitch is the original note.
The second pitch is the original note raised by the number of half steps indicated by the left part of the argument.
The third pitch is the original note raised by the number of half steps indicated by the right part of the argument.

For example, suppose you want to make a C Major chord arpeggio. A C Major chord uses three notes of the scale, C, E, and G.

The root pitch is C.
The second is E (C, C#, D, D#, E, 4 half steps from C.)
The third is G (C, C#, D, D#, E, F, F#, G, 7 half steps from C.)

The argument then is 47. Enter the four into the left side of the argument, and seven into the right. You can extend the effect by entering the argument on subsequent lines, as shown below.

C-2 10047
--- 00047
--- 00047

The left and right parts of the argument for a minor chord are 3 and 7.

SLIDE UP 01
This slides the pitch of the current track up. It decreases the period of the note by the amount of the argument on each timing pulse. OctaMED-Pro can create slides automatically, but you may want to use this function for special effects. Experiment with various values for the argument.

C-2 10000
--- 00000
--- 0010F slide up a small amount

SLIDE DOWN 02
The same as SLIDE UP, but it slides down.

PORTAMENTO 03
Makes precise sliding easy.

```
C-2  10000  <---Play a note C
---  00000
E-2  10305  <---This note is not played. It sets the slide target
---  00300      to E and the slide speed to 5.
---  00300  <---When speed is zero, it uses the previous speed.
---  00306  <---The speed can be changed, of course.
```

This example would slide from C to E, and stop immediately when E is reached. The remaining 3's have no effect.

Usually slides are easiest done with the automatic slide generator.

VIBRATO 04
The left half of the argument is the vibrato speed, the right half is the depth. If the numbers are zeros, the previous speed and depth are used.

```
C-2  10000
---  00000
---  00433 slow, not much depth
---  00437 medium depth
---  0043F full depth
---  00482 fast, not very deep
```

SLIDE + FADE 05
ProTracker compatible.
This command is the combination of commands 0300 and 0Dxx. The argument is the fade speed. The slide will continue during this command.

```
C-1  10000
D-3  10303 slide at speed of 3
---  00300 continue slide
---  00502 continue slide + fade speed 2
---  00502
```

VIBRATO + FADE 06
ProTracker compatible.
Combines commands 0400 and 0Dxx. The argument is the fade speed. The vibrato will continue during this command.

C-1 104A3 vibrato
--- 00400 cont. vibrato
--- 00603 cont. vibrato + fade speed 3
--- 00603

TREMOLO 07
ProTracker compatible.
This command is a kind of "volume vibrato". The left number is the speed of the tremolo, and the right one is the depth. The depth must be quite high before the effect is audible.

D-2 107DF tremolo
--- 00700 continue
--- 00700

HOLD and DECAY 08
This command must be on the same line as the note. The left half of the argument determines the decay and the right half the hold.

C-2 10824 decay = 2, hold = 4
-|- 10000
-|- 10000
--- 00000

SECONDARY TEMPO 09
This sets the secondary tempo (the number of timing pulses per note). The argument must be from 01 to 20.

--- 00903 double tempo
--- 00000

POSITION JUMP 0B
The song plays up to this command and then jumps to another position in the play sequence. The song then loops from the point jumped to, to the end of the song forever. The purpose is to allow for introductions that play only once.

The jump is to the play sequence number in the argument. If the argument is 00, then the play sequence jumps to the first entry.

--- 00B02 start playing from play sequence number 3

SET VOLUME 0C
Overrides the default volume of an instrument.

A-3 40C20 played at volume 20

Volume levels are 0-64. The argument can be 00-64 (decimal) or 00 to 40 (hex). The DEC and HEX gadgets on the PLAY PANEL control the interpretation of the volume values.

You can change the volume of notes already played:

A-3 40000
--- 00000
--- 00C10 volume to 10

VOLUME SLIDE 0D
Smoothly slides the volume up or down. The left half of the argument increases the volume. The right decreases it.

C-3 30D01 0 = crescendo, 1 = decrescendo

If the crescendo value is zero the player will perform a decrescendo. If the crescendo is not zero, only a crescendo is performed regardless of the decrecendo value.

C-2 30C40
--- 00D01 a little quieter
--- 00D01 even more quiet
--- 00D20 and crescendo back to original

You could use Command C, but it is not as smooth.

SYNTH JUMP 0E
When used with synthetic or hybrid instruments,it triggers a jump in the Waveform Sequence List.The argument is the jump destination (line no).

C-4 40000 this should be a synthetic or hybrid instrument
--- 00000
--- 00E05 cause a jump to line # 5

MISCELLANEOUS 0F
The effect depends upon the value of the argument.

If the argument is zero (00), this command causes an immediate jump to the next block on the Playing Sequence List. If there is only one block, it will jump to the beginning of the current block. Usually, this is better done by making the block shorter since it uses less memory.

C-2 10F00 this is the last note that will play in this block

When the argument is from 01 to F0, it changes the Primary Tempo. Tempos between 01 and 0A, are compatible with SoundTrackers. You should, however, use the Command 09 for more accurate compatibility (set the Primary Tempo to 33 in that case).

C-2 60FF0 highest tempo
--- 00000
--- 00F0B slowest

Data bytes from FF1 to FFF produce effects documented below:

FF1 plays the note twice. It can create fast rhythms. For example:

C-3 20FF1 is the same as C-3 20000
C-3 20000

FF2 plays the note only once, but it is not started immediately. For example:

C-3 20FF2 is the same as --- 00000
C-3 20000

(both of the above commands assume a Secondary Tempo of 6)

FF3 plays the note three times (very fast).

FF8 turns the low-pass filter off.

FF9 turns the low-pass filter on.

FFD works only with sampled sounds. It changes the pitch of the channel, but does not play the new note.

C-1 20000 play note
--- 00000
C-2 20FFD do not play note, just set the pitch to C-2

This command is practically the same as 3FF.

FFE stops playing the song. If you want a song to play only once, put this at the end of the song. This can be easily entered by clicking the STOP button on the PLAY PANEL while holding the Shift key.

FFF Stops the note on the current track. It is nearly identical to C00 for sampled sounds, but also works with MIDI. It is useful in the Split Channel Mode.

SLIDE PITCH UP (only once) 11
Equivalent to ProTracker command E1x.
Lets you control the pitch with great accuracy. This command changes only this occurrence of the note.

C-2 11105 slightly above the C-2

You can play a note at any period value you wish. For example, C-2 is 428. To play it at period 431, just enter:

C-2 11103.

SLIDE DOWN (only once) 12
Equivalent to ProTracker command E2x.

VIBRATO 14
ProTracker compatible. This is similar to command 04 except the depth is halved, to give greater accuracy.

SET FINETUNE 15
Set a finetune value for a note, overrides the default fine tune value of the instrument.

C#3 21503 finetune +3
D-2 315F8 finetune -8

Since these are hex numbers, negative numbers must be expressed as:

-1 = FF -5 = FB
-2 = FE -6 = FA
-3 = FD -7 = F9
-4 = FC -8 = F8

Only values F8 (-8) to FF (-1) and 00 to 07 should be used.

LOOP 16
Creates a loop within a block. 1600 marks the beginning of the loop. The next occurrence of the 16 command designates the number of loops.
Same as ProTracker E6x

004 C-3 11600 argument = 00 mark loop begin
005 D#2 10000
006 --- 11603 argument = 03 loop three times

This example would loop lines 004-006 three times before going on. You cannot nest loops.

STOP NOTE 18
Cuts the note by zeroing the volume at the pulse specified in the argument value. This is the same as ProTracker command ECx
This is done by setting the volume to zero (unlike command 08, which actually turns off the note by turning off DMA). This also works with MIDI.

C-2 11801 very short
D-2 11802 slightly longer
E-2 11804 even longer

SET SAMPLE START OFFSET 19
Same as ProTracker command 9.
When playing a sample, this command sets the starting offset (at steps of $100 = 256 bytes). Useful for speech samples.

C-2 11904 play the sample starting at offset $400 = 1024

SLIDE VOLUME UP ONCE 1A
Only once ProTracker command EAx.
Lets volume slide slowly once per line.

D-2 11A01 a looped string, perhaps, default volume 0
--- 01A01

VOLUME DOWN Only once ProTracker command EBx.

JUMP TO NEXT BLOCK 1D
Jumps to the nest line in the PLAY SEQUENCE LIST at the specified line. ProTracker command D
This command is like F00, except that you can specify the line number of the first line to be played. The line number must be specified in HEX.

--- 01D03 next block, start on line 3

PLAY LINE x TIMES 1E
Plays only commands, notes not replayed. ProTracker pattern delay.

C-2 10000--- 00000
--- 00101--- 01E06 delay this line six times

COMBINED NOTE DELAY-RETRIGGER 1F
1Fxy (x=delay, y=retrigger.
Gives accurate control of notes. You can delay the note any number of timing pulses, and initiate fast retrigger. The left argument number is the note delay value, the right one is the retrigger value.

C-2 11F20 delay 2 timing pulses
pulse 0 ---
1 ---
2 C-2
3 ---

C-2 11F02 retrigger every second pulse
pulse 0 C-2
  1 ---
  2 C-2
  3 ---
  4 C-2

C-2 11F22 delay 2 pulses AND retrigger every second pulse
pulse 0 ---
  1 ---
  2 C-2
  3 ---
  4 C-2

he command 0FF1 is equivalent to 1F03, and 0FF2 to 1F30.

MIDI COMMANDS:

CONTROLLER VALUE 00
See Command 05 for a description of use.

PITCH BENDER UP 01
Turns up the pitch bender 8 times the argument steps on each timing pulse. Because the ranges of pitch benders differ with various MIDI devices, you must find the values through experimentation. Also, when a new note is played, the pitch bender is not automatically reset. To reset it, issue the command again with a 00 argument.

C-2 101FF turn the pitch bender up very fast
--- 00000
--- 00100 reset the pitch bender

PITCH BENDER DOWN 02
The same as previous command, but it slides down.

SET PITCH BENDER 03
Sets the pitch bender to an absolute value, instead of sliding as Commands 01 and 02 do. The argument is the pitch bender value, expressed as a signed hexadecimal digit (a nightmare for non-programmers).

80 (-7F) = smallest value
    00 = center position
    7F = largest value

C-2 30000
--- 0037F pitch bender to max. value
--- 00300 reset

MODULATION WHEEL 04
Affects the modulation wheel on the current channel. The argument can be from 00 to 7F.

00 = no modulation
7F = maximum. Values 80 to FF are not used.

CONTROLLER NUMBER 05
This is used with Command 0 to change any controller (MIDI command B x cc vv, where cc = controller number, vv = value).

Set the controller number you want to change with Command 5. Then, select the value with Command 0. Subsequent uses of Command 0 will affect the controller previously set with Command 5. Each channel has its own controller number. If you want to set the controller value to 0, you cannot use "00", because that tells OctaMED-Pro to do nothing. Instead, you use "80". Acceptable controller numbers are 00 to 7F, and values 01 to 80.

Assume instrument 03 is set to MIDI channel 1:

C-2 30000
--- 00507 controller 07, volume (MIDI standard)
D-2 3007F value is 7F, command B0 07 7F is sent
--- 00000
F-3 30001 low volume (01)
--- 0055C select controller 5C (tremolo depth)
G-4 30080 set to 0 (note: 80 = 00)

HOLD 08 This command must be on the same line as the note. The right half of the argument determines the hold value. This will works equally well with sampled sounds, except decay is ignored.

SEND MIDI A MESSAGE 10
Sends a MIDI message. The argument is the message number. The first message has number 0, so you must subtract one to convert the message number from the message editor for use with this command.

--- 01000 send the first message

The MIDI message data has priority over the MIDI note data. MIDI timing pulses are sent immediately even if a message dump is going on.

POLYPHONIC AFTERTOUCH 0A
Changes the polyphonic AfterTouch for the most recent note. The value should be 00 to 7F.

C-3 40000
--- 00A30 AfterTouch 30
--- 00000
--- 00A00 AfterTouch 00

NOTE VELOCITY 0C
Overrides the default velocity (volume) of an instrument. This command must appear on the same line with a note.

A-3 40C20 played at volume 20

This command accepts an argument similar to Command 0C for sampled sounds (see above). The volume range of 0-64 is converted to the velocity range of 0-127.

CHANNEL PRESSURE 0D

Sends a channel pressure (channel AfterTouch) message using the most recently used channel. The argument should be 00 to 7F.

D#5 J0000
--- 00D40 channel AfterTouch 40
--- 00D00 to 00

PAN CONTROL 0E
Controls the stereo location of the sound. The argument can be from 00 to 7F.

left	mid	right
00	3F	7F

MISCELLANEOUS 0F
This command also has some effects for MIDI use only, in addition to those defined in the section "Song and sampled instrument commands" above.

FFA sends a "hold pedal on" -command.
FFB sends a "hold pedal off" -command.

CHANGE MIDI PRESET 1C
Changes the MIDI preset number of the current instrument. Use with caution in multi-modules.

KEYBOARD SHORTCUTS:

EDIT CURSOR MOVEMENT:

Up one line	Up cursor
Down one line	Down cursor
Left one space	Left cursor
Right one space	Right cursor

GO TO:

First block	Left-Alt-up cursor
Last block	Left-Alt-down cursor
Previous block	Shift-up cursor
Next block	Shift-down cursor
First line of block	F6
Second quarter of block	F7
Middle of block	F8
Last quarter	F9
Last line of block	F10

One track left	Alt-left cursor
One track right	Alt-right cursor
One screen left	Ctrl-left cursor
One screen right	Ctrl-right cursor

SELECT TOOL PANELS:

FILES PANEL	Ctrl-F1
PLAY PANEL	Ctrl-F2
INSTRUMENTS PANEL	Ctrl-F3
BLOCK PANEL	Ctrl-F4
EDIT PANEL	Ctrl-F5
MISCELLANEOUS PANEL	Ctrl-F6
VOLUME PANEL	Ctrl-F7
MIDI PANEL	Ctrl-F8
TRANSPOSE PANEL	Ctrl-F9
RANGE PANEL	Ctrl-F10

EDIT FUNCTIONS:

Delete note or character	DEL
Delete note and command	Shift-DEL
Delete note and space	Backspace
Delete track	Alt-Backspace
Insert a space	Shift-Backspace
Insert a track	Shift-Alt-Backspace
Edit off and on	Esc
Auto-space off and on	~
Cut track	Amiga-x
Copy track	Amiga-c
Paste track	Amiga-v
Cut block	Amiga-X
Copy block	Amiga-C
Paste block	Amiga-V
Pick note 0 to 9	Ctrl-Shift-0 to 9
Enter programmed note 0 to 9	Shift-0 to 9
Auto-advance down off and on	Ctrl-a
Create volume slide	Amiga-O
Create slide:	
command 3 (transform)	Amiga-t
command 1 and 2	Amiga-T
Insert a hold symbol -|-	Return
Insert a hold symbol -|-	A
Insert hold symbols to all tracks of the previous chord	Shift-Return

AMIGA SOUND OCTAVE SELECTION:

If NO MIDI is highlighted the function keys select the following octaves:

Octave 1+2	F1
Octave 2+3	F2
Octave 3+4	F3
Octave 4+5	F4
Octave 5+6	F5

MIDI CHANNEL OCTAVE SELECTION:

Octave 1+2 2+3 3+4	F1 (press repeatedly)
Octave 4+5	F2
Octave 5+6	F3
Octave 6+7	F4
Octave 7+8 8+9 9+A	F5 (press repeatedly)

The various maps of the numeric keypad are described in the EDIT PANEL section of this manual.

PLAY CONTROL:

Play song	Amiga-p
Play song	Shift-Alt-Space Bar
Play block	Amiga-Space Bar
Stop	Space Bar (delete note, if SPC=CLR active)
Continue playing block	Alt-Space Bar
Continue playing song	Shift-Space Bar

PLAY SEQUENCE LIST:

Go to end of list	Ctrl-1
Scroll list down	Ctrl-2
Decrease block number	Ctrl-4
Insert current block number	Ctrl-5
Increase block number	Ctrl-6
Go to top of list	Ctrl-7
Scroll list up	Ctrl-8
Insert number 0	Ctrl-0
Delete the block number	Ctrl-.

The numbers refer to keys on the numeric keypad.
If the Caps Lock is on, the keypad can be used to edit the Play Sequence List, without holding the Ctrl key.

INSTRUMENT LIST:

Go to end of list	Alt-1
Scroll list down	Alt-2
Quick scroll down	Alt-3
Go to top of list	Alt-7
Scroll list up	Alt-8
Quick scroll up	Alt-9

Select next instrument	Shift-left cursor
Select previous instrument	Shift-right cursor
16 instruments forwards	Alt-Shift-right cursor
16 instruments backwards	Alt-Shift-left cursor
Select instrument name gadget	Amiga-i
Select and clear instrument name gadget	Amiga-I
Select instrument repeat gadget	Amiga-r

SAMPLE LIST CONTROLS:

Scroll list up	Alt-8
Scroll list down	Alt-2
Scroll list up fast	Alt-9 (PgUp)
Scroll list down fast	Alt-3 (PgDn)
Go to top of list	Alt-7 (Home)
Go to bottom of list	Alt-1 (End)

The numbers refer to keys on the numeric keypad.

MISCELLANEOUS:

Display free memory	Ctrl-f
Low pass filter off and on	Amiga-f
Highlight current line	TAB

Reset MIDI Effects (pitch bender/modulation wheel/presets) Ctrl-Space Bar
When entering commands, pressing Alt-(+number key) adds 10 to the number.
While the Caps Lock is on, you can enter the programmable keys without holding the Alt key.

PROTRACKER KEYS:

The following Protracker key functions are recognized only when PTKEY is active:

Record	Right Shift
Continue song	Right Alt
Play block	Right Amiga
Previous block	Left Alt-left cursor
Next block	Left Alt-right cursor
Increase Play Sequence position	Shift-left cursor
Decrease Play Sequence position	Shift-right cursor
Stop playing, toggle editing	Space Bar
Next track	TAB
Previous track	Shift-TAB
Cut track	Shift-F3
Copy track	Shift-F4
Paste track	Shift-F5
Cut block	Alt-F3
Copy block	Alt-F4
Paste block	Alt-F5

SYNTHETIC AND HYBRID SOUND COMMANDS:

VOLUME SEQUENCE LIST COMMANDS

	FUNCTION	CMMD	ARGUMENT	KEYBOARD
1.	Set volume	---	volume	---
2.	END sequence	END	---	---
3.	Set volume CHange Down speed	CHD	speed	D
4.	Set volume CHange Up speed	CHU	speed	U
5.	WAIt	WAI	pulses	W
6.	JuMP	JMP	line #	J
7.	Jump Waveform Sequence	JWS	line #	Shift-J
8.	HaLT	HLT	---	H
9.	Set SPeeD	SPD	speed	S
10.	One-shot ENvelope	EN1	envelope#	E
11.	Looping ENvelope	EN2	envelope#	Shift-E

Waveform sequence list commands

	FUNCTION	Cmmd		Keyboard
1.	Set waveform	---	number	---
2.	END sequence	END	---	---
3.	Set pitch CHange Down speed	CHD	speed	D
4.	Set pitch CHange Up speed	CHU	speed	U
5.	WAIt	WAI	pulses	W
6.	JuMP	JMP	line #	J
7.	Jump Volume Sequence	JVS	line #	Shift-J
8.	HaLT	HLT	---	H
9.	Set SPeeD	SPD	speed	S
10.	ARPeggio begin definition	ARP	offset	A
11.	ARpeggio End definition	ARE	---	E
12.	Set ViBrato Depth	VBD	depth	V
13.	Set ViBrato Speed	VBS	speed	Shift-V
14.	RESet pitch	RES	---	R
15.	Set Vibrato WaveForm	VWF	number	Shift-W

EXAMPLES:

VOLUME SEQUENCE LIST COMMANDS:

Set volume
Command: ---
Argument: ---
Keyboard: --- (direct number)

This is the default command. It has no command keyword identifier. It sets the absolute volume of the synthetic sound. The range is 00 to 40. You cannot use relative track volumes set on the VOLUME PANEL with synthetic sounds.

Example:
00 30 Volume = $30
01 10 Volume = $10

Command: END
Argument: ---
Keyboard: ---

END terminates the Volume Sequence List and is always on the list. You cannot insert other commands below the END command.

Change Down (volume)
Command: CHD
Argument: (speed)
Keyboard: D

CHD sets the speed the volume decreases on each timing pulse. The volume starts changing after the command. To stop the volume slide, issue the command again with the speed set to 00.

Example:
00 CHD Command: Change Down
01 05 Argument: (speed = 5)
...
10 CHD Command: Change Down
11 00 Argument: (speed = 0) stop sliding

Change Up (volume)
Command: CHU
Argument: (speed)
Keyboard: U

CHU is similar to CHD, but it changes the volume up.

Wait
Command: WAI
Argument: (pulses)
Keyboard: W

WAI pauses a specified number of timing pulses.
Example:
03 WAI Command: Wait
04 10 Argument: (wait for 16 ($10 hex) pulses)

Jump
Command: JMP
Argument: (line number)
Keyboard: J

JMP goes to another position in the Volume Sequence List.
Example:
05 JMP Command: Jump
06 0A Argument: (jumps to line 0A)

Jump Waveform Sequence
Command: JWS
Argument: (line number)
Keyboard: Shift-J

JWS causes a jump in the Waveform Sequence. This can, for example, trigger a pitch change at the end of the Volume Sequence List. This does not cause a jump to Volume Sequence.

Example:
04 JWS Command: Jump Waveform Sequence
05 0F Argument: (jump to waveform sequence 0F)

Halt
Command: HLT
Argument: ---
Keyboard: H

HLT has the same effect as END, but it can be in the middle of a sequence list.

Example:
03 HLT Command: Halt
04 0... Some other code. Can be accessed with JMP instruction.
...

Speed
Command: SPD
Argument: (speed)
Keyboard: S

SPD sets the execution speed.

Example:
0A SPD Command: Speed
0B 01 Argument: (speed = 1) fastest
...

The following commands require OctaMED V2.00 (MED V3.20) or later versions.

One-shot Envelope
Command: EN1
Argument: (envelope wave form number)
Keyboard: E

EN1 lets you to set the shape of the envelope. When the end of the envelope is reached, nothing occurs.

Example:
02 40
03 EN1 Command: Set Envelope
04 05 Argument: (waveform 05)

Here waveform 05 is used as an envelope. The envelope execution starts on the next interrupt, so the volume is initialized to 40. The envelope waveform must always be 128 bytes long.

Looping Envelope
Command: EN2
Argument: (envelope waveform number)
Keyboard: Shift-E

EN2 is similar to the EN1 command except at the end execution loops to the beginning.

WAVEFORM SEQUENCE LIST COMMANDS:

Set Waveform
Command: ---
Argument: (waveform number)
Keyboard: ---

Use this command to indicate the waveform number (starting from 00). After this instruction, execution stops until next timing pulse occurs. Do not use waveform numbers higher than the number of the last waveform.

Example:
00 00 waveform 00
01 01 waveform 01
...

End
Command: END
Argument: ---
Keyboard: ---

END terminates the Waveform Sequence List. It is always in the list. You can not insert commands below it.

Change Down (pitch)
Command: CHD
Argument: (speed)
Keyboard: D

CHD sets the sliding speed for sliding the pitch down. The sliding starts after this command and stops when speed is set to zero.

Example:
00 CHD Command: Change Volume Down
01 03 Argument: (speed = 3)
...

Change Up (pitch)
Command: CHU
Argument: (speed)
Keyboard: U

CHU is similar to CHD, but slides the pitch up.

Wait
Command: WAI
Argument: (pulses)
Keyboard: W

WAI pauses for the number of pulses specified.

Example:
03 WAI Command: Wait
04 02 Argument: (wait 2 pulses)

Jump
Command: JMP
Argument: (line number)
Keyboard: J

JMP causes a jump to another position in the Waveform Sequence List.
Example:
05 JMP Command: Jump
06 0A Argument: (go to line 0A)

Jump Volume Sequence
Command: JVS
Argument: (speed)
Keyboard: Shift-J

JVS causes a jump in the Volume Sequence. It can, for example, trigger volume changes after waveform events.

Example:
09 JVS Command: Jump
0A 00 Argument: (go to volume sequence 00)

Halt
Command: HLT
Argument: ---
Keyboard: H

HLT has the same effect as END, but it can be in the middle of the sequence list.

Example:
03 HLT Command: Halt
04 0... some other code.

Speed
Command: SPD
Argument: (speed)
Keyboard: S

SPD sets the execution speed in pulses.

Example:
0A SPD Command: Set Speed
0B 01 Argument: (speed = 1) fastest
...

Arpeggio Definition
Command: ARP
Argument: (offset)
Keyboard: A

ARP begins an arpeggio definition sequence. The values that follow are the arpeggio offsets from the root note. The arpeggio sequence ends with an ARE command. The arpeggio starts after the sequence is defined.

Example:
03 ARP Command: Start Arpeggio
04 00 Argument: (offset value)
05 04 Argument: (offset value)
06 07 Argument: (offset value)
08 ARE Command: End Definition

Arpeggio End
Command: ARE
Argument: ---
Keyboard: E

ARE ends an arpeggio definition. See above.

Vibrato Depth
Command: VBD
Argument: (depth)
Keyboard: V

VBD sets the vibrato depth (00-7F). Values below 0F are usually suitable for ordinary vibrato. Higher values are mainly useful for special effects.

Example:
02 VBD Command: Set Vibrato Depth
03 04 Argument: (depth = 4)

Vibrato Speed
Command: VBS
Argument: (speed)
Keyboard: Shift-V

VBS sets the vibrato speed (00 - 7F). Both the speed and depth must be non-zero for vibrato to work.

Example:
02 VBD Command: Set Vibrato Depth
03 04 Argument: (depth = 4)
04 VBS Command: Set vibrato speed
05 30 Argument: (speed = 30)

Reset Pitch
Command: RES
Argument: ---
Keyboard: R

RES resets the pitch of the note to its initial pitch.

The following command requires OctaMED V2.00 (MED V3.20) or later.

Vibrato Waveform
Command: VWF
Argument: (waveform number)
Keyboard: Shift-W

VWF sets the vibrato waveform. The waveform should always be 32 bytes long. It is actually played reversed (use the REV button to reverse it). By default, a sine wave is used.

Example:
00 VBD Command: Set Vibrato Depth
01 06 Argument: (depth = 6)
02 VBS Command: Set Vibrato Speed
03 40 Argument: (speed = 40)
04 VWF Command: Set Vibrato Waveform
05 04 Argument: (use waveform 04)

SYNTHETIC SOUND COMMANDS IN SONGS:

If used as a MIDI command in a song, E controls the MIDI pan, when used with MIDI. However, when used with synthetic sounds, it triggers a jump in the Waveform Sequence List.

For example, to decrease the pitch of the sound at a certain point, the Waveform Sequence could look like this:

```
00 VBS  Command:  Set Vibrato Speed
01  40  Argument: (speed = 40)
02 VBD  Command:  Set Vibrato Depth
03  06  Argument: (depth = 6)
04  00  Command:  Play Waveform 00
05 HLT  Command:  Halt
06 CHD  Command:  Pitch Changing Entry Point
07  02  Argument: (speed = 2)
08 END  Command:  End
```

Now you could compose a track like this:

```
+-----+----------
| 011 | C-2 30000 this is the previous synthetic sound
| 013 | --- 00000
| 014 | --- 00000
| 015 | --- 00E06 jump to position 06 (pitch starts to slide down)
| 016 | --- 00000
| 017 | ...
```

HOLD AND DECAY IN SYNTHETIC SOUNDS:

Hold and Decay work well with synthetic sounds. The decay value in synthetic sounds is a jump address in the Volume Sequence List. When the decay starts, execution jumps to this entry in the Volume Sequence List. You can also use it to affect the Waveform Sequence List with the JWS command.

Example Volume Sequence List:

```
00  40  Command:  Initialize Volume
01 HLT  Command:  Halt
02 CHD  Command:  decay handling (entry point) --> cause decay
03  03  Argument: (speed = 3)
04 END  Command:  End
```

The decay value for this synthetic sound should be 2.

OCTAMEDPLAYER VERSION 3 - 4 MAIN INSTRUCTIONS:

OctaMEDPlayer is a stand alone music player program. It can play songs in the following formats:

Sng+Samples
MMD0 and MMD1 modules MED Version 2.10 or later, or any version of OctaMED. It cannot load MED songs or files created with earlier versions of MED.
You can convert older files by loading them into OctaMED-Pro and re-saving them. There may be tempo problems with MED V2.10 modules. If so, load the module into OctaMED-Pro, set the Secondary Tempo to 06 and re-save it. Also, a bug in MED 3.00 causes some modules to crash when played. Load and re-save them.

OctaMEDPlayer can play "standard" four channel Amiga songs, MIDI songs, 5 - 8 channel OctaMED songs, and Multi-Modules.

OctaMEDPlayer works with 2.0 as well as 1.3 Amiga operating systems. It can be started from either the CLI or Workbench.

TO RUN FROM CLI:

```
                  Song number if multi-module
                    |
OctaMEDPlayer MyMultiModule 2
          |
      Song path and file name.
```

If a song is not specified, an OctaMEDPlayer window will open with a string gadget to enter a song name. After you enter a song file, it will load and begin playing. Ctrl-C stops playing.

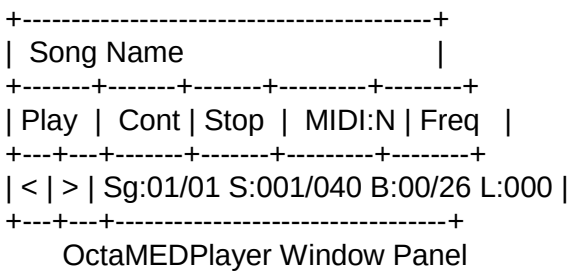
WORKBENCH:

You can run OctaMEDPlayer from the WorkBench by double clicking its icon. A song can also be played when its icon is double clicked,if the icon default tool is OctaMEDPlayer. Another technique is to click the song icon and then Shift-double click the OctaMEDPlayer icon.
The Player always opens a window when it is started from the Workbench.

THE OctaMEDPlayer WINDOW:

When you start OctaMEDPlayer from the WorkBench or from the CLI without arguments, a window appears with various gadgets to control playing. There is a string gadget, Song Name. You can load a new song by typing its path description and file name into this gadget. The control buttons are:

Play plays the song from the beginning.
Cont re-starts the song at the point it was stopped.
Stop stops playing the song.
MIDI:N turns MIDI on and off.
FReq load songs with a file requester.
You must have Amiga DOS 2.0 (V37) and the asl.library V37.
< > If you are playing a Multi-Module, the arrow gadgets select songs.



OctaMEDPlayer Window Panel

Sg:01/01 displays the number of the current song on the left, and the number of songs in the module on the right.

S:001/040 displays the position of the block that is playing in the Play Sequence List, and the number of sequences in the list.

B:00/26 displays the block number that is playing, and the total number of blocks.

L:000 displays the line numbers as they play.

OCTAMEDPLAYER AREXX INTERFACE:

OctaMEDPlayer has a AREXX interface. You must have the AREXX program to use this. The port name is OCTAMEDPLAYER. The following commands (not case sensitive) are recognized:

loadmod Loads a module (e.g. loadmod "MyModule").
songnum Sets the Multi-Module song number (e.g. songnum 2).
play Plays the current module.
stop Stops playing.
cont Continues playing after a stop.
getsongs Returns the number of the songs in a module.
(1) for single song.
(> 1) for a Multi-Module.
quit Quit OctaMEDPlayer.

FINAL NOTES

The player routines may be used freely the Public Domain and
you are encouraged to use it with your PD/Shareware compositions
All programmer routines may be used in PD/Shareware progs.
Please note,however,that if you are intending to use any of the
routines/libraries within a Commercial venture, ie for gain,
then you must,by law,obtain a licence for this from RBF SOFTWARE

THE COPY OF OctaMedPlayer ON THIS DISK MAY BE NEWER THAN V3

OctaMED V5 SHOULD BE AVAILABLE SOMETIME IN OCTOBER/NOVEMBER 1993
THIS COMPLETELY NEW VERSION WILL NOT FUNCTION ON 1.3 OPERATING
SYSTEMS AS IT HAS BEEN RE-WRITTEN FOR THE NEW AMIGA GENERATION.

AMIGA IS A TRADEMARK OF COMMODORE AMIGA INC

BROADENING YOUR HORIZONS:

Since Trackers are used to create music for such a wide variety of purposes, it is not surprising that many programs have been written to extend their usefulness. There are many new programs and updates of older ones that will be of interest to OctaMED-Pro misicians. Since OctaMED-Pro is can use music written by the earliest Trackers it is the best program for making use of accessory programs.

These programs fall into three broad categories: stand alone players that play Tracker songs, programming languages and presentation systems that use Tracker song modules to add music to programs, and utility programs of use to composers.

CHOOSING AN OCTAMED-PRO FILE FORMAT:

Since each new version of OctaMED-Pro has many advanced features, many Tracker support programs can not use the newest file formats. We recommend that you first try using the format in which you originally saved the song. If it does not work, load the score back into OctaMED-Pro and save it again in the next simpler format, and try it in the accessory program again. If you write music, or re-save existing songs with the limitations of other formats in mind you can use virtually any accessory program.

Below is a list of OctaMED-Pro formats and brief descriptions of their differences.
MOD1(+INSTR) is a new OctaMED-Pro song format. It uses the full MIDI note range and two-number note commands. It also saves the song's instruments with the song file. This is the most advanced format and may not be recognized by older programs.

MOD1(NO INSTR) Since this format does not save instruments, most external programs likely will not know how to find the instruments.

MOD0 (OLD) This format is the most commonly recognized.
ST-MODULE This is the only choice for accessory programs that recognize only SoundTracker modules. This format does not support many advanced OctaMED-Pro features.

PROGRAMS:

The following list is not intended to be an exhaustive list of programs that support Tracker modules. It is simply a short list of some that have come to our attention and are useful with OctaMED-Pro:

OctaMEDPlayer is a separate stand-alone program that comes on the OctaMED-Pro program disk. It can play songs without loading them into OctaMED-Pro. It can be controlled from the WorkBench, the CLI, or AREXX. You may freely distribute OctaMEDPlayer. This provides a way to share your music with other Amiga owners.

EdPlayer Version by Ed Mackey is a shareware module player with a graphic interface that uses a compact disk analogy. It can play MED 3.1 songs and has a sophisticated AREXX interface.

MultiPlayer Version by Bryan Ford is a shareware player program for Soundtracker and MED modules and over twenty other common module formats. It is available with Arexx support if you pay the shareware fee.

AREXX (Wishful Thinking Software) is a programming language which has two purposes. It serves as a macro language within a program and it can be used by one program to control another. It is this second function that is applicable to OctaMED scores. OctaMEDPlayer has an AREXX port, meaning it can receive AREXX messages and can be controlled by another program sending AREXX messages. This provides OctaMED-Pro music support for presentation programs like Amiga Vision and CanDo. AREXX can be purchased from its author, Bill Haws or through most software distributers.

AMOS (Mandarin Software) is a commercial program. It is a very sophisticated version of BASIC. It comes with a utility program, SoundTracker2AMOS, that converts SoundTracker modules into files you can use in AMOS programs. A program of this type is the only realistic way to play complex music from BASIC.
(SHOULD INCLUDE MED EVENTUALY)
Action Replay III (Datel) is a commercial program utility that has a feature which rips music from disks and saves it in SoundTracker format.
(SHOULD INCLUDE MED EVENTUALY)

MOD Processor (Amiganuts United) by Steve Marshall is another program that is of great use to musicians. It is one of the easiest and most versatile ways to distribute your music. The program converts OctaMED scores to executable files. You can then run the module from the WorkBench just by clicking its icon. You may also combine the module with an IFF picture that will display while the module plays. It also has a timer you can set to display the image for any length of time you want. It's Copyrighted and available from Amiganuts United. in the U.K

AMFC V2 [Amiga Music File Converter] (RBF SOFTWARE) by Brian Thom is a program that anyone interested in music should have.It tries to convert files from one format to another. It supports an impressive number of formats. V2 is shareware and is available from your OctaMED supplier.

Below are some of the conversions AMFC V2 can attempt:

From	To
Startrekker	OctaMED
SMUS	OctaMED
Oktalyzer	OctaMED

From	To
OctaMED	Music-X
OctaMED	Startrekker

AMFC Professional SHOULD be available toward the end of 1993 and promises to be very good indeed,it will be a Copyright program and only available from your licenced dealer.

This manual was compiled and formatted by Todd Gill 11-17-11.

Source documents from http://cd.textfiles.com/zoom2/info/guides/octamed4manual/

Link provided by Amiga Junglism @
http://www.amiga.org/forums/showpost.php?p=639429&postcount=9