

# **OctaMED**

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<b>COLLABORATORS</b>
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# Contents

<b>1</b>	<b>OctaMED</b>	<b>1</b>
1.1	Playback / Songs	1
1.2	Songs / How To Play, Continue Or Stop A Song or Block	2
1.3	Songs / How To Set The Playing Speed (Tempo)	3
1.4	Songs / How To Stop Playing In An Emergency	4
1.5	Songs / How To Switch Tracks On And Off	5
1.6	Songs / How To Adjust The Volume Of Each Track	5
1.7	Songs / How To Time Part Of A Song	6
1.8	Songs / How To Store And Recall A Song Position	7
1.9	Songs / How To Display The `Equalizers`	8
1.10	Songs / How To Transpose The Whole Song	8
1.11	Playback / Instruments	9
1.12	Instruments / How To Play An Instrument With The Keyboard	10
1.13	Instruments / How To Play An Instrument In The Sample Editor	11
1.14	Instruments / How To Determine The Octave Range Of An Instrument	12
1.15	Instruments / How To Tune An Instrument	13
1.16	Instruments / How To Set An Instrument's Usual Volume	14
1.17	Instruments / How To Use An Instrument's Default Pitch	15
1.18	Instruments / How To Set An Instrument's Hold And Decay	16
1.19	Playback / Playing modes	17
1.20	Playing modes / How To Use 4-Channel Mode	18
1.21	Playing modes / How To Use 5 To 8-Channel Mode	18
1.22	Playing modes / How To Use Mix Mode	20
1.23	Playing modes / How To Make Tempo Conversions	20

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# Chapter 1

## OctaMED

### 1.1 Playback / Songs

#### HOW TO...

Play, continue or stop a song

Play, continue or stop a block

Set the playing speed (tempo)

Stop playing in an emergency

Switch tracks on and off

Adjust the volume of each track

Time part of a song or block

Store and recall a song position

Display the 'equalizers'

Transpose the whole song

#### OVERVIEW

A 'song' is not just a collection of blocks. Before attempting to play a song, you must create a 'playing sequence', the order in which your song's blocks should be played.

Use the Play, Cont and STOP buttons in the Main Control window to play your song. If your computer 'hangs' during play, do an emergency stop by holding down both mouse buttons for a while.

The speed at which the song plays can be changed in the Tempo window. You can choose to mute some of the Tracker editor's tracks, adjust the volume of each track, or use the timer (Information window) to time part of a song or store and recall a particular song position.

The equalizers, once an integral part of OctaMED, are now rarely used but can still be displayed in two separate windows. Finally,

the entire song can be shifted up or down a key using the Play Transpose slider.

#### NOTES

\* In the Song Options window, the Audio Filter Active check box turns the low-pass filter on or off. When on, the Amiga's power LED will be bright and the sound will be more muffled. Keeping it off is usually preferred. Where?

## 1.2 Songs / How To Play, Continue Or Stop A Song or Block

### HOW TO PLAY, CONTINUE OR STOP A SONG

#### INTRODUCTION

Before playing a song, you should create a 'playing sequence': the order in which your song's blocks should be played. Having done so, use the Play, Cont and STOP buttons in the Main Control window to listen to your song.

When the song reaches its end, it will start again, unless stopped prematurely by the occurrence of an OFFE player command. More

#### STEPS

- 1) If necessary, create a playing sequence. How?
- 2) Play your song. Sh'cut
  - > In the Main Control window, click Play next to Song Where?
- 3) Stop the song playing.
  - > Click STOP OR
  - > Press the space bar
- 4) Continue the song from where it left off. Sh'cut
  - > Click Cont next to Song
- 5) Stop the song playing again.
  - > Click STOP OR
  - > Press the space bar

#### NOTES

\* If you like, you can keep the Playing Sequence window open during play. The line marker advances down the sequence as each block is played.

In order to 'follow' the line marker as it progresses, so that the marker is always visible in the sequence, switch on Follow under the sequence. With Follow off, you are free to scroll around the sequence regardless of the current song position.

### HOW TO PLAY, CONTINUE OR STOP A BLOCK

#### INTRODUCTION

Play the current block using the Play, Cont and STOP buttons in the Main Control window. When the block finishes it will start again, unless stopped prematurely by the occurrence of an OFFE player command. More

## STEPS

- 1) If necessary, select the block to be played. How?
- 2) Play the block. Sh'cut  
     > In the Main Control window, click Play next to Block Where?
- 3) Stop the block playing.  
     > Click STOP
- 4) Continue the block from where it left off. Sh'cut  
     > Click Cont next to Song
- 5) Stop the block playing again.  
     > Click STOP

## ALSO SEE

How To Stop Playing In An Emergency

### 1.3 Songs / How To Set The Playing Speed (Tempo)

#### HOW TO SET THE PLAYING SPEED (TEMPO)

## INTRODUCTION

The easiest way to set the song's playing speed, or 'tempo', is to adjust the Tempo slider in the Tempo window. There are two other Where? sliders in this window; the effect of all three sliders depends on the tempo mode (SPD or BPM) and the song's channel mode.

More

In SPD mode, the Tempo and TPL sliders are used. To keep 'in time ↔',

OctaMED responds to regular ticks that come from one the Amiga's clocks. The Tempo slider sets the time between each tick; the TPL slider sets the number of ticks per Tracker editor line. Perhaps a diagram:

```

Line no.
000 tick  -+  The time between each tick can be set
           tick  -+  (Tempo slider)
           tick

001 tick  <-  The number of ticks per Tracker editor
           tick  <-  line can be set (TPL slider)
           tick  <-

002 tick
           tick
           tick  etc.
```

So each line is divided into ticks. The more ticks per line, the slower the tempo. Confusingly, the higher the Tempo slider, the \*shorter\* the length of time between each tick, and the faster the tempo. (See part 8.1 of the printed manual for more explanation of ticks.)

In 4-channel or Mix mode, ignore values 1 to 10 of the Tempo slider: Only use values 11 to 240. In 5 to 8-channel mode, you must use values 1 to 10. The TPL slider can be 1 to 32; the higher the value, the slower the tempo.

As well as SPD, there is another tempo mode: BPM, or Beats Per Minute. In this mode, the Tempo slider controls the number of beats per minute, just like a metronome. For example, a value of 60 is one beat per second. The LPB slider controls the number of Tracker editor lines per beat. For example, 8 (the default) means eight lines are considered as one beat.

It's usually best to leave the TPL slider at 6, especially in BPM mode. As player command effects are performed on every tick, while notes are only played on the first tick of each line, adjusting the TPL slider affects effects. More

#### STEPS

- 1) Open the Tempo window.
  - > Display menu -> Tempo Window
- 2) If necessary, set the tempo mode.
  - > Set the top-left cycle gadget to SPD or BPM
- 3) Set the Tempo, TPL and LPB slider appropriately, as discussed in the introduction. The LPB slider is only enabled in BPM mode.

#### NOTES

- \* Rough conversions can be made from SPD to BPM mode or vice-versa. The tempo mode is changed without greatly affecting the actual song speed. Click Edit (top-right corner), then in the Tempo Operations window, click SPD -> BPM or BPM -> SPD.

If Change Commands is switched on, OctaMED will change the levels of any OF (set tempo) player commands in the song, so that the speed remains the same in the new mode.

- \* Also in the Tempo Operations window, you can set the current tempo to be the usual tempo (or 'default'). This tempo is set when OctaMED starts up and when you start a new song. How?

To set the default tempo, click Set Current Tempo as Default in the Tempo Operations window, then select Settings menu -> Save Settings. More

- \* The tempo mode, Tempo slider and TPL slider (or LPB slider in BPM mode) are shown on the Information window's title bar.

## 1.4 Songs / How To Stop Playing In An Emergency

### HOW TO STOP PLAYING IN AN EMERGENCY

#### INTRODUCTION

In rare cases, OctaMED may 'hang' during play. You'll still hear sound, though usually unpleasant sound, but the screen becomes motionless (or 'frozen'). You can't even move the mouse pointer to

click STOP!

This may happen if notes are played too quickly in the song (many notes at a fast tempo), or if the Mixing Frequency is set too high in the Mixing Settings window.

More

STEPS

- 1) Do an emergency stop (or 'panic stop').
  - > Hold down both mouse buttons for several seconds

ALSO SEE

How To Play, Continue Or Stop A Song

## 1.5 Songs / How To Switch Tracks On And Off

HOW TO SWITCH TRACKS ON AND OFF

INTRODUCTION

In the Tracker editor, you can turn particular tracks off, so that their notes cannot be heard. This can be useful while testing a block that you have just edited. You can concentrate on particular tracks - perhaps just one track - without interruption from less important tracks.

STEPS

- 1) EITHER Use the small boxes containing track numbers along the top of the Tracker editor. Where?
  - > To switch track 2 on or off, for example, click on number 2. In the default colours, a blue box is on, a grey box is off.

OR Use the mouse button assigned to Track On/Off.

- > Click anywhere on the track to be turned on or off, using the mouse button assigned in the Mouse Options window

NOTES

- \* To switch all tracks on in one go, click on any track number while holding down an Alt key. To 'solo' a track, switching off all tracks except the one clicked, click on it with Shift held.
- \* The S boxes beside the track number boxes show whether or not this track is 'selected'. Selected tracks are used in some editing facilities. 'Select' or 'deselect' a track by switching its S button on or off.

## 1.6 Songs / How To Adjust The Volume Of Each Track

HOW TO ADJUST THE VOLUME OF EACH TRACK

INTRODUCTION

The overall volume of each track, and the overall volume of the song, is adjusted in the Relative Track Volumes window. Volumes can be 0 (silent) to 64 (full). Usually, all volumes are 64.



## STEPS

- 1) Open the Relative Track Volumes window.
  - > Song menu -> Set Volumes
- 2) Set the appropriate track volume. Track numbers are displayed along the top of the window.
  - > Adjust the slider corresponding to the desired track
- 3) Set the overall volume of the song.
  - > Adjust the Master slider

## NOTES

- \* If your song uses more than eight tracks, use the arrow buttons (bottom of window) to select a set of eight tracks to change.

## 1.7 Songs / How To Time Part Of A Song

### HOW TO TIME PART OF A SONG OR BLOCK

## INTRODUCTION

Using the timer at the bottom-right corner of the Information window, part of a song can be timed. The timer shows the number of minutes and seconds since either of Main Control's Play buttons were clicked. Where?

The timer starts whenever you play or continue the song or block. It's reset to zero on clicking Song Play or Block Play. Continuing the song or block or stopping play does not reset the timer. Alternatively, click the R button beside the timer to reset it.

## STEPS

\*\* To time part of a song, from its start:

- 1) Start the song playing.
  - > In the Main Control window, click Play next to Song Where?
- 2) When appropriate, stop the song playing.
  - > Click STOP OR
  - > Press the space bar
- 3) Examine the time on the timer

\*\* To time part of a song, from anywhere in the song:

- 1) If appropriate, click on the section list entry where the song should start. More
  - 2) Click on the playing sequence entry where the song should start. More
  - 3) If necessary, move to the exact Tracker editor line where the song should start. How?
  - 4) Reset the timer, if it isn't already reset.
    - > Click R (bottom-right of Information window)
  - 5) Continue the song.
-

> In the Main Control window, click Cont next to Song                   Where?

6) When appropriate, stop the song playing.

> Click STOP OR

> Press the space bar

7) Examine the time on the timer

\*\* To time part of a block, from its start:

1) Select the appropriate block.   How?

2) Start the block playing.

> In the Main Control window, click Play next to Block                   Where?

3) When appropriate, stop the block playing.

> Click STOP OR

> Press the space bar

4) Examine the time on the timer

\*\* To time part of a block, from anywhere in the block:

1) Select the appropriate block.   How?

2) Move to the line where the block should start.                       How?

3) Reset the timer, if it isn't already reset.

> Click R (bottom-right of Information window)

4) Continue the block.

> In the Main Control window, click Cont next to Block                   Where?

5) When appropriate, stop the block playing.

> Click STOP OR

> Press the space bar

6) Examine the time on the timer

#### NOTES

\* To stop the song more precisely, enter an OFFE player command at   More  
the appropriate point.

#### ALSO SEE

How To Store And Recall A Song Position

## 1.8 Songs / How To Store And Recall A Song Position

### HOW TO STORE AND RECALL A SONG POSITION

#### INTRODUCTION

The timer at the bottom-right corner of the Information window has a hidden purpose. When it is reset using the R button, the current position in the song is saved. To move back to that position later on, click on the timer itself.

The current position in the song is a combination of the current section list entry, the current playing sequence entry, the current block and the current line. So this can be very useful while editing.

#### STEPS

- 1) Store the current song position by resetting the timer.
  - > Click R (far bottom-right corner of Information window)
- 2) Recall the song position at a later date.
  - > Click on the timer itself, to the left of R

## 1.9 Songs / How To Display The 'Equalizers'

### HOW TO DISPLAY THE 'EQUALIZERS'

#### INTRODUCTION

The two sets of 'equalizers' show in their own particular way what is happening while a song is playing. Each appears in its own window.

There is one bar equalizer per Tracker editor track. The bars bob up and down whenever notes are played; their height indicates the volume of the notes. If many tracks are used in your song, use the window's sizing gadget to show the bars of all tracks.

The oscilloscope is the waveform of the combined sound being produced by OctaMED. In versions of OctaMED before 6, there was one oscilloscope per sound channel. Now, all sound channels are

More  
combined into one oscilloscope.

#### STEPS

- 1) Display the bar equalizers.
  - > Settings menu -> Equalizers -> Bar
- 2) Display the oscilloscope.
  - > Settings menu -> Equalizers -> Scope

## 1.10 Songs / How To Transpose The Whole Song

### HOW TO TRANSCOPE THE WHOLE SONG

#### INTRODUCTION

'Transposing' is raising or lowering the pitch of all notes in a specific area. In this case, the specific area is the song. All notes in the entire song can be raised or lowered using the Play Transpose slider. The notes themselves are not affected, only their sound.

Remember that all notes means all instruments, even percussion! If notes are transposed too high or low, they will use the highest or lowest octave available to them.

---

## STEPS

- 1) Open the Song Options window.
  - > Song menu -> Set Options
- 2) Transpose the whole song. A positive value raises the pitch, a negative value lowers. The value is in halfsteps (semitones).
  - > Adjust the Play Transpose slider

## NOTES

- \* To affect the notes themselves, rather than just their sound, use the Transpose window. How?

## 1.11 Playback / Instruments

## HOW TO...

Play an instrument with the keyboard

Play an instrument in the sample editor

Determine the octave range of an instrument

Tune an instrument

Set an instrument's usual volume

Set an instrument's default pitch

Set an instrument's hold and decay

## OVERVIEW

Instruments are usually played with the Amiga's keyboard. OctaMED arranges the keyboard into about 2½ octaves, laid out to resemble a two-tier piano keyboard. Because most instruments have a range of over 2½ octaves, the octaves in which the keyboard plays can be selected.

An instrument must be loaded into memory How?  
or created before it can be played. How?

Using the sample editor, a particular part of the sample can be played. It is useful to tune instruments to each other, so that your song sounds 'in tune' and editing is made easier. The Instrument Properties window contains the settings related to each instrument, which include its usual volume, default pitch, hold and decay.

## NOTES

- \* By switching on Disable in the Instrument Properties window, an instrument can be temporarily disabled; that is, notes played by it in the song are completely ignored. Where?
- \* If the sample has a loop set, try switching on Loop Ping-Pong (Instrument Properties window). This plays the loop back and forth rather than just forwards. Where?

- \* Poly Play (Keyboard Options) is interesting. When switched on, Where?  
and edit mode is switched off, playing notes using the keyboard  
More  
will play the notes through alternate sound channels. This gives  
a kind of 'resonating' effect. Try it!
- \* Before sound can be played through the Amiga, the sound channels  
(or 'audio channels') must be allocated. If OctaMED can't do  
this, a requester appears. This happens when another music  
program is using the sound channels.

When you don't need the sound channels in OctaMED, you can free them for use by other programs. To do this, switch off Project menu -> Audio Channels. It will already be switched off if OctaMED has not yet used the sound channels.

## 1.12 Instruments / How To Play An Instrument With The Keyboard

### HOW TO PLAY AN INSTRUMENT WITH THE KEYBOARD

#### INTRODUCTION

Instruments are usually played with the Amiga's keyboard. OctaMED arranges the keyboard into about 2½ octaves, laid out to resemble a two-tier piano keyboard.

Remembering that an octave on the piano contains 7 white notes and 5 black, here's how the Amiga keyboard is laid out:

Lower octave	Middle octave	Upper half-octave	
2 3 5 6 7	9 0 = \		<== Black keys (sharps)
Q W E R T Y U	I O P [ ]		<== White keys (naturals)
S D G H J	L ;		<== Black keys (sharps)
Z X C V B N M	, . /		<== White keys (naturals)

Notice the row of 7 white notes and 5 black notes in each octave. For example, to play note G in the middle octave, press T. For a more complete description, see part 1.1 of the printed manual.

Although the Amiga's keyboard offers 2½ octaves, instruments can usually play over more octaves than that. For example, synthetic sounds have a range of 5 octaves, numbered 1 to 5. Because of this,  
More  
there is an octave-switching facility.

In the Main Control window's bottom-right corner, the Oct gadget shows two digits: the octave number being played in the lower octave (usually 1), and that in the middle octave (usually 2). To change this, repeatedly click on the cycle gadget, or use function keys F1 to F5.

Tracker editor notes consist of a note name and its octave number. For example, note G-2 means note G played in octave 2.

An instrument must be loaded into memory or created from scratch before it can be played. How? How?

#### STEPS

- 1) Select an instrument to play. How?
- 2) Ensure that edit mode is off.
  - > Switch off Main Control window -> Edit Where?
- 3) Select the required keyboard octaves.
  - > Set the Main Control window's Oct cycle gadget OR
  - > Press F1 to F5
  - \* With non-MIDI instruments, F1 selects octaves 1 and 2, F2 2 and 3, F3 3 and 4, F4 4 and 5 and F5 5 and 6.
- 4) Press a key to play the instrument (see diagram above).
- 5) If the note is sustained for a long time, stop the instrument.
  - > Press the space bar OR
  - > Click Main Control window -> STOP

#### NOTES

- \* Press the F key to play the instrument at its 'default pitch'.
  - More
  - \* Instruments can also be played using a MIDI keyboard. ←
  - More

## 1.13 Instruments / How To Play An Instrument In The Sample Editor

### HOW TO PLAY AN INSTRUMENT IN THE SAMPLE EDITOR

#### INTRODUCTION

In the sample editor, the current display, a marked range or the sample's loop can be played.

Before playing, the pitch (or 'frequency') of the instrument must be selected. The frequency is a number representing the speed at which the sample is played, in Hertz. Alternatively and most commonly, you can set the note corresponding to a particular frequency. So if you want to play the instrument at pitch G-2, just set the playing pitch to G-2.

The frequency of a particular note depends on through which 'output device' the note is played. If it is played through the Amiga, frequencies won't be exact, and they will be different for NTSC and PAL Amigas. If it is played through another device (e.g. a 16-bit soundboard), the frequency will be compensated in other ways.

#### STEPS

- 1) Open the Sample Editor window.
  - > Display menu -> Sample Editor OR
  - > Main Control window -> Edit button (if the current instrument is not a synthsound)
- 2) Set the playing frequency.

- > Set the pitch box beside Pitch (bottom-right), usually at C-2  
OR
- > Type a frequency into the number box beside Pitch

- 3) EITHER Zoom in and play the current display.
- a) Zoom in (not obligatory). How?
  - b) Play the current display.
    - > Click Play Display (bottom-left)

- OR Mark a range and play it.
- a) Mark a range. How?
  - b) Play it.
    - > Click Play (bottom-left)

- OR Set a loop and play it continuously.
- a) Set a loop if necessary. How?
  - b) Play the loop over and over again.
    - > Loop menu -> Play Loop

- 4) If necessary, eventually stop the instrument.
- > Press the space bar OR
  - > Click Main Control window -> STOP

#### NOTES

- \* You can calculate the time taken for the marked range to play, or for the whole sample to play if you mark a range over the whole sample. Select Tools menu -> Calculate Range Time.

## 1.14 Instruments / How To Determine The Octave Range Of An Instrument

### HOW TO DETERMINE THE OCTAVE RANGE OF AN INSTRUMENT

#### INTRODUCTION

Although the Amiga's keyboard is laid out in 2½ octaves, most types of instrument have a greater octave range than that. The octave range of an instrument depends on its type and on the channel mode.

More

In 4, 5, 6, 7 or 8-channel mode, samples have a 3-octave range. That is, they can play notes from C-1 to B-3. Trying to play notes higher than B-3 play from the third octave. For example, E-4 sounds like E-3, as does E-5, E-6 and so on.

In Mix mode, samples can play over 6 octaves: notes C-1 to B-6. This stems through the addition of 2 lower octaves and 1 higher. So note C-3 in Mix mode sounds like note C-1 in other channel modes. Because of this, when switching to Mix mode, samples must be transposed up 2 octaves. This can be done automatically (see part 10.8 of the printed manual).

The above octave ranges apply when the instrument is of type Sample, Hybrid or 16-bit. This are all really types of sample.

The other two types - ExtSample and Synthetic - always have a range of 5 octaves, regardless of channel mode. ExtSamples are similar to samples in Mix mode, in that 2 lower octaves are added to the normal sample range. They don't have the extra higher octave.

This how-to describes how to set an instrument's type.

#### STEPS

- 1) Select the instrument whose type is to be changed. How?
- 2) Open the Instrument Type window.
  - > Instr menu -> Type OR
  - > Main Control window -> Type button
- 3) Select the type.
  - > Click on one of the five types on the left

## 1.15 Instruments / How To Tune An Instrument

### HOW TO TUNE AN INSTRUMENT

#### INTRODUCTION

Most people know the meaning of 'tuning' an instrument in real life. It involves altering its pitch so that notes played on it are 'in tune'.

So it is in OctaMED. There are two sliders involved in tuning an instrument, both in the Instrument Properties window. The Transpose slider moves the pitch up or down in whole halfsteps (semitones). The Finetune slider compliments the Transpose slider, adjusting the pitch in very small steps.

Finetune is arguably the more important of the two sliders, because it ensures that the instruments in your song are in tune with each other. Transpose isn't really necessary, because instead of (for example) moving the pitch down two halfsteps, you can just use notes 2 halfsteps lower than their 'correct' pitch.

Transpose, however, makes it easier to enter notes: It is more predictable if (for example) all C-2's sound the same. For those lucky souls with 'perfect pitch', the Transpose slider is invaluable!

This how-to describes how to tune two instruments to each other. One instrument, the 'reference', is assumed to be in tune already. The other instrument is tuned to the reference. Alternatively, a 'tuning tone' of a particular pitch can be generated by OctaMED as a reference.

If you use an instrument as a reference, choose one with a loop set, so that the instrument never stops playing (until you manually stop it).

#### STEPS

- 1) EITHER Start the reference instrument playing.
  - a) Select the reference instrument. Ideally, it should have a How?  
loop set. More
  - b) Play the instrument at any pitch. Call the pitch P. How?  
    - OR Start a 'tune tone' playing as a reference.



- a) Open the Sample Editor.
  - > Display menu -> Sample Editor OR
  - > Main Control window -> Edit button
- b) Set the pitch of the tune tone. Call the pitch P.
  - How?
  - c) Start the tone playing.
    - > Tools menu -> Play Tune Tone
- 2) With the reference humming in your ears, move to another Tracker editor track. The next track will do fine (Alt-<right>). How?
- 3) Open the Instrument Properties window.
  - > Instr menu -> Set Properties OR
  - > Main Control window -> Props button
- 4) Select the instrument to be tuned to the reference. How?
- 5) Play the current instrument at the same pitch as the reference (we called this pitch P in step 1). Listen carefully: Is it in tune? If not, first adjust the Transpose slider, then the Finetune slider.
  - a) Adjust the Transpose slider in small steps.
    - > To lower the pitch, click anywhere to the left of the Transpose slider's knob. To raise the pitch, click to the right of the knob
  - b) Adjust the Finetune slider.
    - > Move the slider in the usual way

\* If the instrument does not have a loop set, you'll probably have to play it repeatedly while you tune it.
- 6) Repeat steps 4 and 5 for any other instruments to be tuned.
- 7) When you've finished, stop the instruments playing.
  - > Press the space bar OR
  - > Click Main Control window -> STOP button

#### NOTES

- \* Yes, tuning is a bit of a pain, but it's nothing compared to the pain experienced by listening to out-of-tune songs! :-) This how-to may seem long-winded, but as with all instructions, in practice it is usually much more straightforward.
- \* You can remove the need for a finetune value - 'cancel' it - in the sample editor's Change Pitch window. More

## 1.16 Instruments / How To Set An Instrument's Usual Volume

### HOW TO SET AN INSTRUMENT'S USUAL VOLUME

#### INTRODUCTION

The usual (or 'default') volume of an instrument is used whenever the instrument is played: with the keyboard, when entering a note, or during song play.

The volume can be 0 (silent) to 64 (full). By default, all

---

instruments are played at full volume, but if some instruments appear to 'stick out' in a song, you may want to reduce the volume of the offending instruments.

The default volume is overridden in a song using player command type 0C. [More](#)

#### STEPS

- 1) Open the Instrument Properties window.
  - > Instr menu -> Set Properties OR
  - > Main Control window -> Props button
- 2) Select the instrument whose volume is to be set. [How?](#)
- 3) Change the usual volume of the instrument.
  - > Adjust the Vol slider (near the bottom on the right)

#### NOTES

- \* In order for it to be heard, you must set the volume of a MIDI instrument. [More](#)

## 1.17 Instruments / How To Use An Instrument's Default Pitch

### HOW TO SET AN INSTRUMENT'S DEFAULT PITCH

#### INTRODUCTION

The 'default pitch' of an instrument is the pitch, or note, at which the instrument sounds best. Perhaps the instrument was originally digitized at this pitch. Play or enter the instrument at its default pitch using the F key (for deFault).

This is especially useful for 'untuned' instruments such as percussion, which are often always entered at the same pitch. For example, if you find that you're always entering a snare drum at note G-2, you can set its default pitch to G-2 then enter it using the F key.

So if you have many percussion instruments in your song, set their default pitches one by one. Then you can play and enter every instrument with the F key, without having to remember their best pitches individually.

#### STEPS

- 1) Open the Instrument Properties window.
  - > Instr menu -> Set Properties OR
  - > Main Control window -> Props button
- 2) Select the instrument whose default pitch is to be set. [How?](#)
- 3) Set the default pitch of the instrument.
  - > Set the Default Pitch pitch box (top-right) [How?](#)

#### NOTES

- \* Remove an instrument's default pitch by setting its pitch to --- (using the Del key).

- \* If the instrument is saved, its default pitch is converted to a frequency and saved with the instrument. Frequencies are not loaded with instruments, however. More

## 1.18 Instruments / How To Set An Instrument's Hold And Decay

### HOW TO SET AN INSTRUMENT'S HOLD AND DECAY

#### INTRODUCTION

Hold and decay affects the notes played by an instrument during a song. The 'hold' is the length that a note should be sustained at its usual volume.

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After the note has been held, it can be cut (suddenly silenced) or gradually fade away to nothing. The 'decay' is the speed of this fading away, or 0 if the note should be cut.

Hold is set in 'ticks', subdivisions of Tracker editor lines. Usually, there are 6 ticks per line, so a hold value of 6 sustains the note for one full Tracker editor line before the decay takes effect. Hold values this small or even smaller are common.

The decay value does not represent any particular measurement; just experiment with different values. The slowest decay - 1 - is often the most effective.

#### STEPS

- 1) Open the Instrument Properties window.
  - > Instr menu -> Set Properties OR
  - > Main Control window -> Props button
- 2) Select the instrument whose hold and decay is to be set. How?
- 3) Set the instrument's hold value.
  - > Type a number into the Hold box (bottom-left)
- 4) Set the instrument's decay value.
  - > Type a number into the Decay box (bottom-left)
- 5) To test the hold and decay, enter a note with the instrument then play the block. How?

How?

#### NOTES

- \* If an instrument has a hold value, following a note played by the instrument with a 'hold symbol' (-|-) extends the length of the note, overriding the hold value.

In this example, although instrument 02 has hold value 4, the hold symbols keep the note held until line 003. On line 003, the hold value is used (i.e. the note decays after the 4th tick).

```
000 C-3 20000
001 -|- 20000
002 -|- 20000
003 -|- 20000
004 --- 20000
```

To enter a hold symbol, move the cursor to the appropriate note space and press Return. Alternatively, clear the note then set an instrument number. More

\* The number of ticks per line is set using the TPL slider in the More  
Tempo window, but it's usually left at 6.

\* Player command 08 temporarily sets a note's hold and decay. More

\* The maximum value of both Hold and Decay is 127. For Hold, this usually equates to just over 21 Tracker editor lines.

## 1.19 Playback / Playing modes

HOW TO...

Use 4-channel mode

Use 5 to 8-channel mode

Use Mix mode

Make tempo conversions

OVERVIEW

The Amiga plays music using 4 'sound channels'. Each sound channel can play one sample at a time. In the usual 4-channel playing mode, each Tracker editor track corresponds to a sound channel. So in this mode, OctaMED can play a total of four samples at once, on tracks 0 to 3.

Four channels is fine for simple songs, and just about enough for more complicated songs, if cleverly constructed, but you'll soon start yearning for more tracks!

Thankfully, OctaMED can help. The 5, 6, 7 and 8-channel modes all use the same trick - mixing pairs of samples together - to increase the number of available tracks to 8. Because this is a trick, there is a drop in sound quality, and samples must usually be played at half-volume. Often these limitations are acceptable.

New to the Soundstudio, Mix mode is an improvement on the 5 to 8-channel modes. It allows access to all 64 possible tracks, brings your song to life with special effects, and much more.

Mix mode is not covered in detail in these help pages. You'll find full instructions in chapter 10 of the printed manual.

NOTES

\* The usual playing mode is 4-channel. To set a different usual playing mode, use the Default Channel Mode cycle gadget in the Where?  
Miscellaneous Options window. Save the new setting if desired. How?

\* The information box at the bottom-right corner of the Information

window shows the current channel mode: 4Ch to 8Ch, or Mix.

## 1.20 Playing modes / How To Use 4-Channel Mode

### HOW TO USE 4-CHANNEL MODE

#### INTRODUCTION

4-channel mode is the normal playing mode. In it, each track corresponds to a sound channel. Notes on track 0 are played through the 1st sound channel, track 1 through the 2nd channel, and so on up to track 3.

The four sound channels are divided into two pairs; each pair plays notes through a different speaker. As a result, notes on tracks 0 and 3 play through the left speaker, while notes on tracks 1 and 2 play through the right.

The how-to describes how to change back to 4-channel mode from another playing mode. If samples have been halved (in 5 to 8-channel mode), each sample should be reloaded. Don't try to double the volume of each sample, as they will have lost sound quality.

#### STEPS

- 1) Open the Song Options window.
  - > Song menu -> Set Options
- 2) Change to 4-channel mode.
  - > Click 4 Channels/MIDI (top-left)

## 1.21 Playing modes / How To Use 5 To 8-Channel Mode

### HOW TO USE 5 TO 8-CHANNEL MODE

#### INTRODUCTION

While composing in OctaMED, you may find that the Amiga's ability to play up to four samples at once is a bit limiting. Luckily, you can add up to four extra tracks, extending the maximum number of simultaneous samples to five, six, seven or eight. This feature is called 5 to 8-channel mode.

Because the Amiga only actually has four channels, the mode mixes together pairs of samples and outputs each pair through one sound channel. This mixing takes up a lot of the Amiga's time, and sound quality is also lost, introducing distortion.

Tracks are paired as follows: 0 and 4, 1 and 5, 2 and 6, 3 and 7. Each pair of tracks is played through one sound channel, and as a result, each pair shares a volume. So, for example, tracks 1 and 5 must have the same volume at all times. Because of this, track

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volumes and instrument default ('usual') volumes are ignored.

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In addition, all samples must be halved in volume to keep mixing distortion to a minimum. Existing samples are halved automatically

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when you change to 5 to 8-channel mode. Any samples that you subsequently load are normally halved automatically.

In 5, 6 or 7-channel mode, not all tracks are paired. In 5-channel mode, only tracks 0 and 4 are paired, leaving tracks 1 to 3 unpaired and high quality, just like tracks in 4-channel mode. In 6-channel mode, tracks 0 / 4 and 1 / 5 are paired, leaving tracks 2 and 3. In 7-channel mode, just track 3 is left unpaired. A table to summarise this information:

Channels	0	1	2	3	4	5	6	7
4	U (L)	U (R)	U (R)	U (L)	-	-	-	-
5	P (L)	U (R)	U (R)	U (L)	P (L)	-	-	-
6	P (L)	P (R)	U (R)	U (L)	P (L)	P (R)	-	-
7	P (L)	P (R)	P (R)	U (L)	P (L)	P (R)	P (R)	-
8	P (L)	P (R)	P (R)	P (L)	P (L)	P (R)	P (R)	P (L)

[ Key: P = paired track, U = unpaired track, - = unused  
(L) = played on the left speaker, (R) = on the right speaker ]

For best results, you shouldn't use more channels than you need. If, for example, your song doesn't use more than six tracks at once, you should select 6-channel mode instead of 7 or 8-channel mode. This both relieves some of the load on your computer's processor, and gives you two unpaired, high quality tracks (2 / 3).

Other limitations in this mode are as follows:

- \* Limited tempo selection. Use Tempo slider values 1 to 10 only.  
More  
(1 is quickest).
- \* Synthetic or hybrid instruments cannot be used. More
- \* Equalizers cannot be used.  
More
- \* MIDI cannot be used. More
- \* Limited sample loop length. If the Tempo slider is set to 1, the loop can only be set in 200-byte steps. Increasing the Tempo slider decreases the loop accuracy in steps of 20 bytes. So if Tempo is the maximum 10, the length is set in 400-byte steps. More

The how-to describes how to change to 5 to 8-channel mode.

#### STEPS

- 1) Open the Song Options window.  
> Song menu -> Set Options
- 2) Change to 5 to 8-channel mode.  
> Click 5, 6, 7 or 8 Channels

- 3) Expand all blocks to have the suggested number of tracks.  
> Click Yes in the requester
- 4) If there are samples in memory, halve them.  
> Click Halve in the requester
- 5) If desired, enhance sound quality. For 7 or 8-channel mode, you must have at least a 68020 processor (found in the A1200).  
> Switch on High Quality Mode

#### NOTES

- \* Samples that haven't been halved can be played successfully through unpaired channels. For this reason, you can switch off automatic halving of loaded samples. To do this, switch off Instr menu -> Halve Loaded Samples.
- \* High Quality Mode can be switched on automatically when you select 5 to 8-channel mode. In the Miscellaneous Options window, set Default HQ Mode to On, then save settings.                      Where? How?

## 1.22 Playing modes / How To Use Mix Mode

### HOW TO USE MIX MODE

New to the Soundstudio, Mix mode is an improvement on the 5 to 8-channel modes. It allows access to all 64 possible tracks, brings your song to life with special effects, can record part of a song directly to disk, and much more.

Mix mode is not covered in detail in these help pages. You'll find full instructions in chapter 10 of the printed manual.

#### NOTES

- \* The Mixing Settings window doesn't really fit on an NTSC (American) screen. We apologise for this; there wasn't really a way round it. You can still get at all the gadgets except for the Exit button; use the window's close gadget instead.

## 1.23 Playing modes / How To Make Tempo Conversions

### HOW TO MAKE TEMPO CONVERSIONS

#### INTRODUCTION

There are two methods of setting the 'tempo', or song playing speed: One for 4-channel or Mix mode, one for 5 to 8-channel mode.

Rough conversions can be made between methods, in either direction. The tempo is changed for use with the new channel mode, without greatly affecting the song speed. Tempo conversions are made in the Tempo Operations window.

#### STEPS

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- 1) Open the Tempo Operations window.
  - > Display menu -> Tempo Window
  - > Tempo window -> Edit button (top-right)
  
- 2) EITHER Convert a tempo designed for 4-channel mode for use with 5 to 8-channel mode.
  - > Click 4 Ch -> 8 Ch

OR Convert a tempo designed for 5 to 8-channel mode for use with 4-channel mode.

  - > Click 8 Ch -> 4 Ch

#### NOTES

- \* If Change Commands is switched on, OctaMED will change the levels of any OF (set tempo) player commands in the song, so that the speed remains the same in the new mode.

#### ALSO SEE

How To Set The Playing Speed (Tempo)

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