SampleE

Rainer Müller

COLLABORATORS

	TITLE : SampleE	

ACTION	*NAME*	*DATE*	*SIGNATURE*
WRITTEN BY	Rainer Müller	May 28, 2025	

REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

Contents

1 SampleE **1**

1.1 SampleE Dokumentation - contents . . . 1
1.2 SampleE - Introduction . . . 1
1.3 SampleE - Requirements . . . 2
1.4 Sample - Installation . . . 2
1.5 SampleE - Bugs . . . 2
1.6 SampleE - Internals . . . 3
1.7 SampleE - History . . . 3
1.8 SampleE - Future Plans . . . 5
1.9 SampleE - Acknowledgements . . . 5
1.10 SampleE - Disclaimer . . . 6
1.11 SampleE - Copyright . . . 6
1.12 SampleE - Author . . . 6
1.13 SampleE - Usage . . . 7
1.14 save settings . . . 8
1.15 use settings . . . 8
1.16 edit window . . . 8
1.17 zoom . . . 8
1.18 mark . . . 8
1.19 copy-buffer functions . . . 8
1.20 buffer mono/stereo ? . . . 9
1.21 edit . . . 9
1.22 reverse . . . 9
1.23 inverse . . . 9
1.24 info window . . . 9
1.25 type of memory . . . 10
1.26 Sample Mono/Stereo ? . . . 10
1.27 ranges - change startpoint/endpoint/length . . . 10
1.28 ranges - startpoint/endpoint/length/Länge . . . 10
1.29 sample window . . . 11

1.30 project window . . . 11
1.31 add sample . . . 12
1.32 copy sample . . . 12
1.33 delete sample . . . 12
1.34 new name . . . 12
1.35 Load . . . 12
1.36 Mono / Stereo . . . 13
1.37 signed / unsigned . . . 13
1.38 8 Bit / 16 Bit - Motorola / Intel . . . 13
1.39 skip . . . 14
1.40 MultiIO-Load . . . 14
1.41 cancel . . . 14
1.42 save . . . 14
1.43 save format . . . 15
1.44 save . . . 15
1.45 cancel . . . 15
1.46 volume window . . . 15
1.47 volume parameters . . . 16
1.48 volume: fade in/fade out . . . 16
1.49 change volume . . . 16
1.50 shift window . . . 16
1.51 shift value . . . 17
1.52 useful shift-values . . . 17
1.53 shift . . . 17
1.54 mix window . . . 17
1.55 mixing ratio . . . 18
1.56 mix . . . 18
1.57 echo window . . . 18
1.58 echo parameters . . . 18
1.59 calculate echo . . . 19
1.60 frequency window . . . 19
1.61 frequency parameters . . . 19
1.62 octave higher/lower . . . 20
1.63 calculate frequency . . . 20
1.64 about window . . . 20
1.65 fragmented memory . . . 20
1.66 audio window . . . 21
1.67 play . . . 21
1.68 set frequency . . . 21

1.69 frequency . . . 22
1.70 set volume . . . 22
1.71 volume . . . 22
1.72 stereo window . . . 22
1.73 mixing ratio . . . 22
1.74 convert to . . . 23
1.75 to mono - options . . . 23
1.76 to stereo - options . . . 23
1.77 edit . . . 23
1.78 swap sides . . . 24
1.79 preferences window . . . 24
1.80 screen options . . . 24
1.81 memory options . . . 24
1.82 use AHI . . . 25
1.83 save . . . 25
1.84 use . . . 25
1.85 cancel . . . 25
1.86 load last . . . 25
1.87 recommended screen modes . . . 26
1.88 AHI . . . 26
1.89 Paula . . . 26

Chapter 1

SampleE

1.1 SampleE Dokumentation - contents

```
        SampleE V2.90  15.04.1998

         A Sample-Editor written in Amiga-E
          Copyright © 1998 by Rainer Müller
          All rights reserved


    Introduction
    Requirements
    Installation

    Usage

    Configuration

    Bugs
    Internals
    History
    Future Plans

    Acknowledgements
    Disclaimer
    Copyright

    Author
```

1.2 SampleE - Introduction

```
Introduction

  SampleE is a sampleeditor, which most of the standard funktions like e.g.
  copy and insert cuttings, echo-effekt.
  Samples are edited with 16 bit resolution and in mono/stereo, this means of
  course more quality.
```

Depending on the graphic-mode the maximum replay rate may be up to 57.6 kHz.
The playback is done useing the amiga-soundchip in 8 bit.
SampleE supports AHI. So it is possible to replay sounds with a soundcard.
Depending on the soundcard samples are played with up to 16 bit and 48 kHz.
For details read the documentation of AHI !

For loading and saveing SampleE supports in the moment the 8SVX and WAVE format. With the multiio-function SampleE should be able to load a lot of other formats.

1.3 SampleE - Requirements

Requirements

In order to use SampleE, you need an Amiga with 512 KByte and at least Kickstart 3.0. But with 512 KB you only can edit very short samples Fast-Memory is highly recommended. If only Chip-Memory is available, the maximum replay-rate may be limited to quite small values.

AHI is recommended even without soundcard, because the AHI paula-driver allows output with 14 bit !

1.4 Sample - Installation

Installation

The best and easysiet way is to the installation-script.

1.5 SampleE - Bugs

Bugs

I don't know any bugs, except the ones I found out myself. But it is possible, that there are bugs in the program, I haven't found yet.

If an error occurs, please tell me, in order to remove it. Please describe the circumstances when the error occured. If there is a GURU, then tell me the number.

You find a bug-list in History.

My adress Autor

On my computer SampleE didn't cause Enforcer Hits !

1.6 SampleE - Internals

```
Internals

  The programm is written 100% in Amiga-E.
  (Amiga-E Copyright © Wouter van Oortmerssen)

  The maximum samplelength is only limited by the available memory. Samples may
  be loaded into fast-memory. Fast-memory is highly recommended.

  SampleE edits samples with 16 bit. The Amiga audio-hardware works with  only
  8 bit. That means that while replaying, the data has to be reduced to 8 bit.
  This is time intensive, so fast memory is a good thing. Even better is. if
  AHI is used. AHI works faster and supports soundcards.

  With OCS (Old Chip Set) the maximum play-rate was 28800 Hz. Starting with
  ECS (Enhanced Chip Set) and AGA (Advanced Graphics Architecture), maximum
  play-rate is 57600 Hz.
  Maximum rate depends on the graphic-mode, that means from its scanrates. But
  these rates are not "clear", because they change if you use "VGAonly" or the
  monitor-files were modified, so it is difficult to say, what the maximum
  rate is.
  You can find more information under: Recommended Screen-Modes
  The values given there are a compromise of the "normal" values and the values
  with active "VGAonly".

  With AHI this is handled a bit different.
```

1.7 SampleE - History

```
History

History starting with Version 2.0


* V2.0
    new: - colours of the screen can be modified
   - font can be freely selected, except proportional-fonts
   - new GUI and completely font-sensitiv !!
   - loading samples into FAST-Memory
   - Save-Formats-Window
   - Multi-Loadfunction for unknown sample-formate
   - sample-scrollbalken in sample-window
   - shift-function
   - unmix 2 Samples was removed


* V2.02 , V2.03 , 2.04 , 2.05 - Bug-Fixes, some little improvements
   - with OS3.0 texts of the "Text_Kind-Gadgets" weren't displayed
   - after start from Workbench the filerequester shows the current
     directory.
   - if there were an error during startup, SampleE caused an GURU
   - some windows are "zoomable"
```

```
* V2.21  7.3.1997  123452 Bytes -> Aminet
       NEW
   - progressbar
   - no limit of the number of samples (only limited by the available
     memory)
   - sample-selection in a ListView-Window
   - add, that means create a new sample
   - rename sample
   - new "copy sample" function
   - a lot of internal changes (newwritten datastructures, new structure
     of the sourcecode, cleaned up the code)
   - now most of the windows are "zoomable"


* V2.3  25.5.1997  138348 Bytes
       NEW
   - now the Sample-Scroll-Gadget is integrated in the windowborder ->
     the window need less space, graphical display is a bit faster
   - most gadget got a bit smaller -> the windows need less space
   - in the configurationwindow the current displaymode and font is
     displayed
   - load last saved configuration
   - the play-rate can be adjusted with a scroll-gadget in the bottom
     border of the Info-Window
   - Multi-Loadfunction: you can skip the first x Bytes (e.g. if you
     know the size of the file-header)
   - SampleE was completely localised


* V2.71  20.10.1997  157060 Bytes -> Aminet
       NEW
   - samples are edited with 16 bit
   - external configuration-editor -> the structure of the mainprogram
     got less complex and now it is more stable against errors
   - Audio-Window ->  "main" and info window are a bit smaller
   - bigger gadgets -> more space for translations into other languages
   - SampleE opens its windows on the WorkBench Screen if you want
   - new "message-handling" procedures -> smaller, faster
   - while playing a sample, a window appears with a "stop"-gadget to
     stop replaying
   - installationsscript
   - new written audio-replay routine;  BTW: starting with the first
     version of SampleE, there was a bug in the replay routine. Samples,
     which were placed in Chip-Memory, weren't played completely.
   - new written volume-functions -> more exact, more quality
   - new written frequency-function -> more exact, more quality
   - multiformat-savefunction


* V2.90  15.04.1998  192308 Bytes -> Aminet
       NEW
   - now support for editing in stereo
   - AHI support
   - overworked the GUI a little bit
   - overworked the documentation a little bit
   - read and write fibonacci-delta packed 8SVX-files
```

```
      BUGFIX
  - MCP NewGadTools Patch and SampleE didn't like each other -> fixed
  - removed several bugs
```

1.8 SampleE - Future Plans

```
Future Plans

    - hd-editing
    - XPK-support
    - Clipboard-support
    - "Paint"-funktion
    - famples 'loopen'
    - contextsensitive online-hilfe (how do I connect a program with Amiga
      Guide ???)
    - save several marked areas
    - datatypes ?? (how do I use datatypes ???)
    - Arexx ??? (how can I built a port into a program ???)
    ...
    ...

  I am thankful suggestions.

  I am also thankful for documentations/informations about other sampleformaten
  like z.B. VOC, HSN, AIFF, (8SVX, WAVE)... and I will try to write load- and
  save-functions (some demo-samples for checking would be a good idea)
```

1.9 SampleE - Acknowledgements

```
Acknowledgements

  I want to thank following people


  Wouter van Oortmerssen - for the great großartige Amiga-E language

       Nico Francois and
   Magnus Holmgren - for the ReqTools.library

       Martin Blom - for AHI

     Robert Müller - for common suggestions
         for the help writing the installtion-script

        E. Lensink - for the programm 'The Guru'

       Daniel Rädel - for the programm WatchMem

  Commodore & Amiga Technologies - for the greatest of all computers
```

all people who developed the Amiga and
the ones who develope a PowerPC-successor, which is worthy to the Amiga

Georges Goncalves - for the motivation to keep on developing and
for the french translation

1.10 SampleE - Disclaimer

Disclaimer

SampleE, except the ReqTools.library, was completely written and copyright by Rainer Müller. SampleE is FREEWARE. The ReqTools.library was written by Nico Francois and Magnus Holmgren.

The files belonging to SampleE are not to be modified, complemented, shorted, etc..
The files my be archived.

The author is not responsible for any damage or loss of data, which might be caused by the usage of this program.

1.11 SampleE - Copyright

Copyright

SampleE may be copied freely as long as its files are copied in their original condition. SampleE is FREEWARE.

!! COMMERCIAL USAGE and COMMERZIAL DISTRIBUTION is not allowed !!

It is not allowed to distribute the program on disks, which are sold for more then five (5) Deutsch Marks or equivalent in an other currency.

1.12 SampleE - Author

Author

SampleE was developed and written by Rainer Müller

My Address:

Rainer Müller
Lichtenbergstraße 21
88677 Markdorf
Deutschland (Germany)

E-Mail: Rainer.m.Mueller@uni-konstanz.de

The computer:
Amiga 1200, 68030 50 MHz, 16 MB-Fast, 2 MB-Chip, 850 MB-HD, OS3.1 (Kick 40.68, ↩
WB 40.42)

The language:
Amiga-E © Wouter van Oortmerssen

Please note that english is not my native language.
So, if there are any mistakes (ok, there are many mistakes), tell me what
is wrong and what would be right.

1.13 SampleE - Usage

Usage

The Window Manager

information
sample
stereo
audio

edit
volume
shift
mix
echo
frequency

project
about

use
save

With the window-manager you can open all the other windows. A double-klick
on the name of the wanted window opens the window. Is the window already
open it is moved to the front. If the window is only a titelbar, it gets
maximum size.

The close-gadget of the window quits SampleE. Before that, there will be a
security request.

PS. I am not good in writing documentations, but I hope that everything is
more or less easy to understand. If necessary, the good old "do by try"
method will help, to understand the functions and the parameters.

Have fun with SampleE !!

1.14 save settings

```
save setting

  The configuration is saved to ENVARC:SampleE.prefs.
```

1.15 use settings

```
use settings

  The configuration is saved to ENV:SampleE.prefs -> after a reset the
  configuration is lost.
```

1.16 edit window

```
edit window

     zoom mark    buffer     edit
      in        all    sample to    cut
      out      view    to sample   copy
     mark                clear     paste
      all     unmark   M            del
    reverse   inverse              clear
```

1.17 zoom

```
zoom

  - '   in    '  shows a smaller part of the sample
  - '   out   '  shows a bigger part of the sample
  - '  range  '  shows the marked range
  - '   all   '  shows the whole sample
```

1.18 mark

```
mark

  - '   all   '  the whole sample is marked
  - '  view   '  the visible part of the sample is marked
  - ' unmark  '  the marking is deleted
```

1.19 copy-buffer functions

```
copy-buffer functions

  - 'sample to'  the sample will be copied into the copy-buffer
  - 'to sample'  the copy-buffer will be copied to the sample
  - '  clear  '  the copy-buffer will be deleted
```

1.20 buffer mono/stereo ?

```
buffer mono/stereo ?

   A 'M' means, that the copy-buffer contains mono data.
   A 'S' means, you're right, that the copy-buffer contains stereo data.
```

1.21 edit

```
edit

  - '   cut   '  the marked range will be copied into the copy-buffer and
     deleted from the sample
  - '  copy   '  the marked range will be copied into the copy-buffer
  - '  paste  '  the contents of the copy-buffer will be inserted at the
     beginning of the marking
  - '   del   '  the marked range will be deleted from the sample
  - '  clear  '  the marked range will be set to the value 0
```

1.22 reverse

```
reverse

  The marked range will be reversed.
```

1.23 inverse

```
inverse

  The sample will be turned upside down.
```

1.24 info window

```
info window

 range        start  end   length start  end  length
 visible   >
  12345
```

```
>
  12345
>
  12345   12345
  12345
  12345
 marked    >
  12345
>
  12345
>
  12345   12345
  12345
  12345
 sample       M
C
>
  12345                  12345
```

1.25 type of memory

```
type of memory

  Here is the type of memory display, in which the sample is placed.

  C = Chip
  F = Fast
```

1.26 Sample Mono/Stereo ?

```
Sample Mono/Stereo ?

   A 'M' means, that the sample is mono.
   A 'S' means, that the sample is stereo.
```

1.27 ranges - change startpoint/endpoint/length

```
ranges - change startpoint/endpoint/length

  Here you can enter the startpoint/endpoint/length of the visible/marked
  range, change length of the sample (in frames).

  Replay-rate means the rate with which the hardware replays the sample.
```

1.28 ranges - startpoint/endpoint/length/Länge

```
ranges - startpoint/endpoint/length in bytes/ in 1/100 seconds

  Here is the startpoint/endpoint/length of the visible/marked range, the
  length of the sample displayed.
  In the first three read-only-gadgets, the values are in frames, in the last
  three the values are in 1/100 seconds.
```

1.29 sample window

```
sample window

   In the sample window, the sample (or a part of it) is diplayed graphically.

   With the zoom functions in the main menu you can make the
   visible bigger/smaller. With the scroll-gadget at the bottom of the sample
   window, you can scroll the visible part of the sample. The sample is
   displayed "even", that means every 2., 3., ... byte and not every 2,1. 3,6.
   byte is displayed -> it may happen, that in the right half of the window is
   empty.

   The size of the sample window is variable. The width can be adjusted at all.
   If you adjust the window to an innerheight of e.g. 180 pixel, the program
   makes the window smaller, so that the window has an innerheight of 128
   pixels. If you adjust the window to an innerheight of 127 pixel, the window
   will be sized to 64 pixels.


   Mark a range:
      Press the left mouse button in the interior of the window and keep the
      button pressed and mark the range from left to right, by moving the
      mouse. The marked range is made visible by inverted display of the
      sample. The information about position and size are displayed in the
      Info Fenster. You can change the marked range with the mark functions
      in the main menu.
```

1.30 project window

```
project window

   +---------------------------+--+
   |             ||||          |
   |             ||||          |
   |             ||||          |
   |             |  |          |
   |             |<>|          |
   +---------------------------+--+
      add
   copy
  delete
      load
   save
 new name
```

1.31 add sample

add sample

At first a text-requester appears. There you type in the name of the new sample. Then there is a second requester. There you type in the length of the new sample and select wether the sample should be mono or stereo.

1.32 copy sample

copy sample

The sample is copied. It gets the name Copy_of_xxx

1.33 delete sample

delete sample

After a security request, the sample will be deleted.

1.34 new name

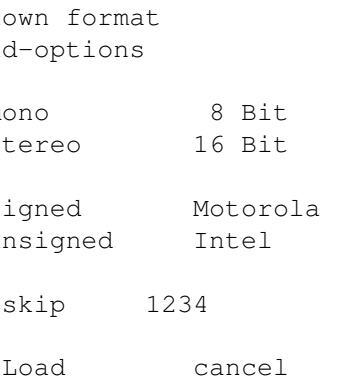
new name

A requester, where you type in the new name, appears.

1.35 Load

Load

A file-requester appears. There you select the sample to be loaded.
If the sample is not a IFF-8SVX or WAVE file, there will be following window.



With this parameters it should be possible, to load every unknown sound-file.

Notes:
If you want to load a file as stereo OR 16 bit, the filelength must be divideable by two.
If you want to load a file as stereo AND 16 bit, the filelength must be divideable by four.

Crunched 8SVX-samples can't be loaded. I don't know how to decrunch a crunched 8SVX-file. But I never saw a crunched 8SVX-file.

If you want to load a file and you are 100% sure that it is a 8SVX or WAVE file, but SampleE says 'unkown format', then send me this file. I will have a look at my load-routines and at the file in order to find the error.
(I know a program, which writes WAVE files in a wrong way)

1.36 Mono / Stereo

Mono / Stereo

With this switches, you select wether the data have to be interpreted a as mono or stereo sample.

SampleE expects, that the stereo-byte order is following:

```
 8 Bit: 12121212...   1 = 1 byte  left;  2 = 1 byte  right
16 Bit: 11221122...   1 = 2 bytes left;  2 = 2 bytes right
```

1.37 signed / unsigned

signed / unsigned

Here you select, wether the data has a sign or not.

Example:
8SVX and amiga-raw soundfile have values from -128 to 122 -> signed

WAVE 8 bit format has values from 0 to 255 -> unsigned

1.38 8 Bit / 16 Bit - Motorola / Intel

8 Bit / 16 Bit - Motorola / Intel

Here you select wether the data has to be interpreted as a 8 bit or 16 bit sample.

If you select 16 bit, Motorola/Intel has following meaning.

In order to get 16 bit, you have to combine 2 bytes. This can be done in two

different ways.

Motorola: left is the high-byte, right is the low-byte

Intel   : right is the high-byte, left is the low-byte

If you have a unknown file, only trying will help, but if you know from which computer the file comes from, you can set the byte order well aimed.

1.39 skip

skip

Here you can set the number of bytes, which you want to be skipped.

This is useful e.g. if you know how big the file-header of the file is or if you want a file as 16 bit-stereo, the filelength must be divideable by 4. You can reach this by skipping by 1,2 or 3 bytes (depending on the filelength).

1.40 MultiIO-Load

MultiIO-Load

The file is loaded with these parameters and with a bit luck, the result is the wanted.

1.41 cancel

cancel

Loading is canceled.

1.42 save

save

Following window appears

```
   Format    options
   8SVX           mono          8 Bit
   WAVE           stereo       16 bit
   RAW            signed       Motorola
      unsigned     Intel
      compress

    save            cancel
```

1.43 save format

```
save format

8SVX: is the most common format on the Amiga. But samples are only saved with
      8 Bit and not with 16 Bit !!! Stereo samples are converted to mono !!!
      If "compress" is activated, the sample will be compressed using the
      fibonacci-delta-method. Die compression is always 50%, but this method
      has in most cases a (high) lost of quality !

WAVE: is mainly used under Windows. There are some options:
      you can save as 8 Bit/16 Bit and Mono/Stereo

RAW:  is a flexibel format, with one disadvantage: it is not saved, in which
      format the sample was saved !
      You can select between 8 Bit/16 Bit; Mono/Stereo; signed/unsigned and
      Motorola/Intel auswählen. You can find a description of the parameters
      under load
      If you select RAW, the default values 8 Bit, Mono, signed, Motorola will
      be used. These values are equal to the AMIGA RAW-format.
```

1.44 save

```
save

  A filerequester appears with which you can save the sample.
```

1.45 cancel

```
cancel

  Saving is canceled.
```

1.46 volume window

```
volume window


   start    |
>
 100 %
     end    |
>
 100 %

   fade  in
 fade out
 maximum   do volume
```

```
  With the volume-change-function you can modify the samples loudness by
  changing the sample.

  **  this function modifies a marked range  **
```

1.47 volume parameters

```
volume parameters

  - you can modify the start/end volume with the scroll bars
  - with '>' you can enter the value in a requester

  on the right the current values are displayed
```

1.48 volume: fade in/fade out

```
volume: fade in/fade out

  The start/end volume is set to
  'fade  in' : fades the marked range in
  'fade out': fades the marked range out

  For 'maximum', a marked range is needed. 'max' calculates the needed volume
  values in order to make the sample as loud as possible.
```

1.49 change volume

```
change volume

  For the marked range, the new volume will be calculated.
```

1.50 shift window

```
shift window


                  |
    0

     up
  down
 center
  zero
        do shift
```

```
  With the shift-function you can shift the wave-form up/down. This may be
  useful if the values of a sample are only above/under the zero-line. This
  may be unfavourable for some functions like e.g. change volume, mix,... .

  **  this function modifies a marked range  **
```

1.51 shift value

```
shift value

  With the scrollbar you can set the value, with which the sample is shifted.
  On the right side the value is displayed.
  A negative/positive value means, that the sample is shifted down/up.
```

1.52 useful shift-values

```
useful shift-values

  '   up   ' - the shiftvalue is set to value which shifts the sample maximum up
  '  down  ' - see 'down' but the sample is shifted down
  ' center ' - the shiftvalue is set to the value which centers the marked range
  '  zero  ' - the shiftvalue is set to the value which moves the first marked
         byte to zero.
```

1.53 shift

```
shift

  Das sample is shifted.
```

1.54 mix window

```
mix window

  current    buffer
   50
    |
 50
       do mix


  This function mixes the current sample with the contents of the copy-buffer.

  Note:
  Is the current sample mono, the copy-buffer has to be also in mono.
  Is the sample stereo, then there are two cases:
  a) the copy-buffer is stereo and in the stereo-window the edit-mode is set
```

```
     to 'both'.
  b) in stereo-window is set to 'left' or 'right', in this case the copy-buffer
     has to contain mono data.


  **  this function changes a marked range  **
```

1.55 mixing ratio

```
mixing ratio

  With the scrollbar you can modify the mixing ratio.
  Left/right of the scrollbar the ratio of the sample/of the copybuffer is
  displayed.
```

1.56 mix

```
mix

  The marked range of the current samples is mixed with the copy-buffer, with
  the set mixing-rate.
```

1.57 echo window

```
echo window

      delay      |
 50 %
      times |
  1 *
      decay      |
 50 %
       do echo


  With this function, you can add one or more echos to a sample.

  **  this function changes a marked range  **
```

1.58 echo parameters

```
echo parameters

  With the scrollbars you set the parameters for the echo function. Behind the
  bar the value is displayed.

  delay : this value defines, after how many percents of the marked range the
```

```
    first/second/third... echo starts

    e.g. 25% = after 1/4 of the marked range, the first echo starts

  times : this value defines the number of echos

    e.g.  3* = three echos will be calculated

  decay : this value defines the decay of the loudness of the echos

    e.g. 25% = the first echo has 75%, the second echo has 50%,... of
         the loudness of the original sample
```

1.59 calculate echo

```
calculate echo

  For the marked range, the echo will be calculated with the set parameters.
```

1.60 frequency window

```
frequency window


   from        |
>
17000 Hz
     to        |
>
17000 Hz

       octave up           octave down
   do with  oversamp   do without oversamp


  With this function you can modify the frequency of a sample without changing
  the replay rate (see info window. This function changes
  the length of the sample.

  **  this function modifies a marked range  **
```

1.61 frequency parameters

```
frequency parameters

  With the scrollbars you can set the from/to frequency. '>' a requester
  appears and there you can enter the value. On the right the value is
  displayed.

  It will be the best, if I explain the meaning of the from/to frequency with
```

an example.

A sample is played with 20kHz. The replay rate stays at 20 kHz, but the sample shall sound as if it is played with 10 kHz. So you set the value of the from-frequency to 20000 Hz and the value of the to-frequency to 10000 Hz and calculate the newfrequency. Now the sample sounds, if it is played with 20 kHz, like the original sample would sound with 10 kHz.

1.62 octave higher/lower

octave higher/lower

The from/to frequenz is set to values, which make the sample an octave higher/lower.

1.63 calculate frequency

calculate frequency

This function affects the WHOLE sample and NOT a marked range.

'do with oversamp' : the calculation will be done with "OverSampling", that means between/average values will be calculated -> better quality, longer calculation time
'do without oversamp' : the calculation will be done without "OverSampling" that means no between/average values will be calculated -> worse quality, shorter calculation time

Is the ratio fromfrequency : tofrequency bigger than 1:3 or 3:1, it may happen, that the calculation with oversampling sounds worse, than the calculation without oversampling

1.64 about window

about window

In the about window you find the versionnumber and the address of the author and information about the memory: available, used, maximum available and biggest continous memory-block.
It is differed between FAST and CHIP memory.

1.65 fragmented memory

fragmented memory

If several program are started/quited, data is loaded/deleted etc. it may

happen that your memory is splitted up in several small pieces.
Samples have to be loaded in continous parts of memory eg. a 100 KByte big
sample can't be loaded, if the biggest memory block is smaller than
100 KByte.

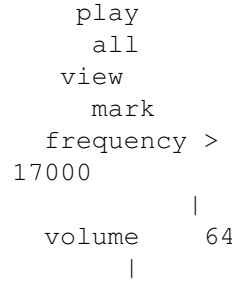
What can you do against fragmented memory ?

- Quit all programs, delete all file in RAM-Disks and execute the command
  'avail' with the option 'flush'. (doesn't always help)

- reboot your computer (helps always)

1.66 audio window

audio window



If in SampleE_Prefs AHI was activated, the samples will be replayed using
AHI.

1.67 play

play

- ' all ' the whole sample is played
- ' view ' the visible range is played
- ' mark ' the marked range is played

while playing a window appears. In this window is a gadget with the text
'stop play'ing'. If you klick on this gadget the playing is stopped.

1.68 set frequency

set frequency

With '>' a requester appears where you can set the frequency.
With the proportional-gadget you can set the frequency, too.

Frequency means the frequency, with which the sound-hardware plays the sample.

1.69 frequency

```
frequency

  Here is the current frequency displayed.
```

1.70 set volume

```
set volume

  With the proportional-gadget you can set the volume.

  Volume means the volume, with which the sound-hardware plays the sample.
```

1.71 volume

```
volume

  Here is the current volume displayed.
```

1.72 stereo window

```
stereo window

     convert to
     mono
       mix
       50
     |
 50
    stereo
      normal
       edit destination
              both
           swap sides
```

1.73 mixing ratio

```
mixing ratio

  This option is only needed, if 'covert to mono' the mode 'mix' is selected.

  With the scrollbar you can modify the mixing ratio.
  Left/right of the scrollbar the ratio of the left/right side is displayed.
  rechten Seite.
```

1.74 convert to

```
convert to

  ' mono ' - converts the sample to mono
  'stereo' - converts the sample to stereo

  with the selected options.
```

1.75 to mono - options

```
to mono - options

  '      mix      ' - the left and right side are mixed together with the
          ratio selected below
  '  left > buffer' - the left side is copied to the copy-buffer, the right
          side stays in the sample
  ' right > buffer' - the left side is copied to the copy-buffer, the right
          side stays in the sample
  '   alternate   ' - the both sides are "fit together" that means, that means
          one value of the left, one value of the right, one value
          of the right and so on -> the new sample is twice as long
          as the old
```

1.76 to stereo - options

```
to stereo - options

  '     normal    ' - the original sample is used for the left and right side
  'buffer > left  ' - the copy buffer is copied to the left side, the original
          sample becomes the right side
  'buffer > right ' - the copy buffer is copied to the right side, the original
          sample becomes the left side
  '   alternate   ' - the original sample is divided that means the 1. value
          is placed to the left, the 2. value is placed to the
          right, the 3. value is placed to the left and so on


  'buffer > left  ' bzw. 'buffer > right ' need, that the copy buffer has the
  same lenght as the current sample.
```

1.77 edit

```
edit

  'both ' - both sides are edited
  'left ' - only the left side is edited
  'right' - only the right side is edit
```

```
  This option affects:
  reverse
  inverse
   clear
   volume
   shift
    mix
    echo
```

1.78 swap sides

```
swap sides

  The left side and the right are swapped.
```

1.79 preferences window

```
preferences window


            own screen               memory
   mode  SUPER72:SuperHighRes        memory
  colours
   font  topaz 8
     use AHI

     save       use       cancel    load last


  SampleE V2.90 has a new config-file format. SampleE_Prefs is able to load
  the old format and convert it to the new.
```

1.80 screen options

```
screen options

  With these gadgets you can:
    "screen " - use own screen or workbench screen
    " mode  " - select a graphics mode
    see also: recommended screen modes
    "colours" - change the screen colors
    " font  " - select a font

    on the right the currently selected screen/font is displayed.
```

1.81 memory options

memory options

In the moment, you can't select anything. The samples are loaded into the fast-memory if possible. If there is no fast-memory available or everything is used, then chip-memory is used.

In a later version there will be some options.

1.82 use AHI

use AHI

If this is checked, SampleE uses AHI-device to replay the samples. This way it is possible to replay samples with 16 bit on a sound card. For more details read the manual of AHI.
Of course AHI has to be installed !

1.83 save

save

The configuration is saved to ENVARC:SampleE.prefs.

1.84 use

use

The configuration is saced to ENV:SampleE.prefs -> after a reset the configuration is lost.

1.85 cancel

cancel

SampleE_Prefs quits and nothing will be saved.

1.86 load last

load last

The last saved configuration is loaded.

1.87 recommended screen modes

```
recommended screen modes

   You should use a screen with at least 640*400 or 800*300 pixels. On a
   smaller screen you will have only few space. You might use a small font,
   but this is often hard to read.

   recommeded:
      - all DBL-modes  (DBLPAL, DBLNTSC) -> max 54000 Hz
      - Euro 72 Hz       -> max 57600 Hz
      - Multiscan      -> max 57600 Hz
      - Super 72       -> max 46000 Hz

      This mode are able to diplay high resolutions without flicker.
      In this mode it is possible to play samples with up to 57.6 kHz.


   not recommeded:
      - PAL
      - NTSC
      - Euro 36 Hz

      This modes flicker more or less strong or in the flicker-free versions
      the resolution is low. Samples can be played with only 28,8 kHz.


   The program should run on graphic-cards without any problems. Maximum replay
   rate is limited to 28,8 kHz.
```

1.88 AHI

```
AHI

  AHI is a replacement for the audio-device. It is driver based that means the
  sound output is done with the amiga soundchip or any amiga soundcard with a
  driver for AHI.

  For more information:

     AHI in Aminet:
     dev/misc/ahidev.lha     developer archive
     mus/misc/ahiusr.lha     user archive
     docs/misc/ahiman.lha    manual

  AHI is Copyright ©1994-1997 Martin Blom
```

1.89 Paula

```
Paula

  Paula is the name of the amiga soundchip. It offers 4 channels (two on the
```

left, two on the right), each with a resolution of 8 bit.

Some time ago a method was developed, which joins the channels of one side together enableing an output in 14 bit.