

SoundBox

Richard Körber

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COLLABORATORS

	<i>TITLE :</i> SoundBox		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
WRITTEN BY	Richard Körber	August 23, 2022	

REVISION HISTORY

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Chapter 1

SoundBox

1.1 SoundBox: Table Of Contents

== TriTech Developments Proudly Presents ==

--

(_ ' _ _ _ | _) _

, _) (_) () (_ | _) (_) >< V2.9 beta

- The Ultimate Sound Format Converter -

WARNING: This is a BETA release! The player part has been heavily modified and might crash your system. If you don't want to risk a crash, please wait for the final release!

WARNING: If you use VMM, DO NOT play back a sample from virtual memory.

Format conversions and effects work with Virtual Memory.

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PS: Thanks for waiting for the English translation.

"I'm a DOCTOR, Jim, not a translator"!

1.2 SoundBox: 1. Short Introduction

SoundBox is a tool which allows you to convert sound samples, and put special f/x on them. The formats IFF, VOC, Wave, AIFF, MAUD, Maestro and RAW are supported and can be loaded and saved. Resolutions between 2 and 16 bit (mono and stereo) are supported. See the chapter [Supported file formats](#) for further information).

Additionally, samples can be manipulated in different ways, e. g. amplified to the maximum amplitude, or shortened to minimum length! Playback uses the built-in audio hardware, using 8 or 14 bit resolution and rates up to 60kHz.

The GUI is fully font sensitive and controllable by mouse or keyboard. It is style guide compliant and has a online help system integrated. You need at least OS 2.04 (version 37) to run SoundBox. To get the best results, I suggest at least OS 3.0 (version 39) and 1 MByte of RAM. A harddisk and a fast processor is highly recommended (especially if you use large samples in the formats Wave and VOC) to avoid long delays. A fast processor is highly recommended if you use high playback rates, especially if combined with productivity mode.

1.3 SoundBox: 2.1. ShareWare

SoundBox is ShareWare. I decided to take this step because I've put a lot of work into this program and I want to continue its development. You are allowed to test this program for one month. After that, you must register, or you must delete the program and all related files (even samples which has been saved by SoundBox). The unregistered ShareWare version is crippled. It has the following limitations:

- ARexx port is not implemented
- Configs cannot be saved
- Productivity screen mode rates cannot be activated
- and some classically annoying requesters, of course... :-)

The registration fee is 20 DM (or US \$15). Payment is ONLY possible by one of the methods mentioned on the registration form. There are no discounts for students or other financially challenged people, but group orders are now available.

Of course, the registration fee includes a diskette, an envelope and the program... There won't be any bad surprises! :-)

As soon as I get the money, you become a registered user of the program. You'll get a diskette containing a personalized, fully functional version.

I try my very best to send the registered version the same day I receive the money. Anyhow, please allow two month for handling your registration. If you haven't got any answer from me after that period, please get in contact with me!

You may pay in any of the following ways:

1. Transmittal to my bank account (Germany only)

See the German guide file... ;-)

2. As cash enclosed in the envelope (international)

This is the easiest, but also most dangerous method. You bear the full risk in case the bills should get lost on the way to me. You can send me 20 DM, US \$15 or 150ÖS. Do NOT send any other currencies! Until now, no bill got lost on the way to me.

3. As Euro Cheque (Europe only)

This method is fast and reliable. It must be drawn to DM only! To balance the exchange fees, please send DM 25 as registration fee if you are not settled in Germany.

IMPORTANT: Read the **copyright note** carefully, before using the program!

IMPORTANT: Please send the registration form! Otherwise, I cannot register you!

Registration form Europe

Registration form International

---- CONTACT ADDRESS ----

Please get in contact with me (E-Mail preferred) if you want to translate the documentation or catalog file into your language. I'll send all the files you'll need.

1.4 SoundBox: 2.2. Copyright, Distribution

SoundBox is © 1995-97 by Richard Körber . All Rights Reserved.

This Program is ShareWare!

This version of the program archive may be distributed freely as long as the archive remains complete and unchanged. You are allowed to charge a maximum fee of DM 8 (or equivalent) to cover all costs including media. Otherwise written permission from the author is required. The package may be compressed by the usual (and free)

programs (like lha, lzh, lzx). Single files of the package must not be compressed!

I allow the Fred Fish library and AmiNet to include this package on their CDs.

The archive consists of the following files:

- SoundBox The program itself
- SoundBox.info Icon
- SoundBox-D.guide German documentation
- SoundBox-D.guide.info Icon
- SoundBox-E.guide This documentation
- SoundBox-E.guide.info Icon
- SoundBox.pic Belongs to the .guide files
- SoundBoxDock.info ToolManager dock icon
- Install Installer script
- Install.info Icon
- libs/provision.library ProVision library
- libs/reqtools.library ReqTools library
- catalog/deutsch/SoundBox.catalog German language catalog
- catalog/SoundBox.cd Catalog file

Distribution of the registered package is strictly forbidden!

Usage for fascist or military purposes is also FORBIDDEN!

You use this program "as is" and at your own risk. The author (Richard Körber) is not responsible for any damage, including (but not limited to) hard- or software damages or data loss.

All rights reserved.

Please delete this program and all related files if you do not agree with these copyright notes.

reqtools.library is © Nico François. (Available on Fish Disks)

provision.library is © Richard Körber.

AmigaGuide is © Commodore-Amiga. (e.g. Fish Disk #920)

All other copyrights remain by their owners.

1.5 SoundBox: 2.3. Contact address

Write to one of the following addresses if you want to contact me:

= [SNAIL MAIL] =====

Richard Körber

Hornstraße 20

51465 Bergisch Gladbach

Germany

=[E-MAIL]=====

If possible, you should contact me by E-Mail, using this address:

shred@chessy.aworld.de

shred@eratosth.dssd.sub.org (as backup only!)

You can also check my homepage for the latest releases:

http://www.is-koeln.de/einwohner/shred

1.6 SoundBox: 2.4.1. registration form - Europe

To:

Richard Körber

Hornstraße 20

51465 Bergisch Gladbach

Germany

Registration form for SoundBox

Name: _____

Street: _____

ZIP, Town: _____

Country: _____ Telephone: _____

E-Mail: _____

I wish to purchase a registered copy of "SoundBox".

The registration fee of DM 20

-

are enclosed cash in this letter, at my own risk.

are enclosed as Euro Cheque (25 DM!!!)

-

Please send a HD disk (Amiga HD formatted)

Currently, I'm using SoundBox Version _____.

I found/got it in/by

Aminet CD BBS Friend PD disk _____

I confirm by paying the fee that I will not copy the registered version except for personal backup purposes.

Town, Date Signature

1.7 SoundBox: 2.4.2. registration formula - International

To:

Richard Körber

Hornstraße 20

51465 Bergisch Gladbach

Germany

Registration form for SoundBox

Name: _____

Address: _____

ZIP,Town: _____

Country: _____ Telephone: _____

E-Mail: _____

I wish to purchase a registered copy of "SoundBox".

The registration fee of DM 20 or US \$15 are enclosed in this letter, at my own risk.

-

Please send a HD disk (Amiga HD formatted)

Currently, I'm using SoundBox Version _____.

I found/got it in/by

Aminet CD BBS Friend PD disk _____

I confirm by paying the fee that I will not copy the registered version except for personal backup purposes.

Town, Date Signature

1.8 SoundBox: 2.5. Updates

You can get updates from the following sources:

- My Homepage

This is the fastest and most secure way! URL:

<http://www.is-koeln.de/einwohner/shred>

- AmiNet

With some days delay, SoundBox will also hit the AmiNet:

mus/misc/SoundBox.lha

- AmiNet CD, Meeting Pearls

For those PD series I explicitly permit the inclusion of

SoundBox. Anyhow, it is their decision at last!

- Snail Mail

Please send a formatted disk, 2 DM stamps and an envelope with your address on it.

You might also get it from:

- BBS

Please check if the packet is complete, unchanged and without any virus.

You will NOT get it:

- Via E-Mail

This is too expensive and will only jam the Internet.

1.9 SoundBox: 3. Installation and starting

Even though SoundBox already works with Kickstart 2.04, I strongly suggest an Amiga with Kick 3.0, at least 2 MB RAM, 68020 or better. A hard disk should be available, too.

SoundBox is installed by the Commodore installer. To install SoundBox, please start your Workbench first, then the installer script. You can choose between disk and hard disk as destination. After that, installation is completed.

If you want to use the online help system, please ensure that you have AmigaGuide installed on your system. Note that you'll need at least V39.

You can start SoundBox either from Workbench by double clicking it's icon, or from Shell. The shell is released immediately after SoundBox has been launched, and may get new commands or be closed.

If installation went correctly, the main window will appear.

Immediate help is available. Just move the mouse pointer over any gadget, button or field. A short discription will appear in the text box at the top of the window.

Online help is also available. Just place the mouse pointer over any gadget in the window and press the Help key. Please note that AmigaGuide is necessary for online help.

1.10 SoundBox: 4.1. Loading a sample

Select "Open..." in the Project menu or press the appropriate button. A file requester will pop up, where you can choose the sample to be loaded.

SoundBox automatically recognizes the format and loads the sample into memory. If possible, Fast RAM is used. This reading process might need a long time, since SoundBox has to do some calculations.

After that, the recognized format is set up in the Format box in the main window. In the display, the waveform of the sample is displayed.

Stereo samples are shown with the left channel above the right channel.

If you have chosen "Always read RAW" at Config window, the sample is always recognized as RAW format.

You can also load a sample by simply dragging it's icon into the SoundBox window.

Since SoundBox converts the sample into a common format during loading process, it is not possible for technical reasons to read files which are packed using PowerPacker by Nico François. You have to unpack those files before loading, or you have to use tools like "PPLoadSeg" (Fish disk #569).

1.11 SoundBox: 4.2. Playback

By selecting the "Play" button (or pressing the RETURN key) the playback is initiated, using the current sampling rate and volume.

The sampling rate and volume can be adjusted during playback.

You can stop by pressing the "Play" button again.

Technical Description of Playback

Generally, the sample is not played directly, but by special routines it is converted realtime during playback. A playback rate of 60kHz on every Amiga is reached by realtime up/downsampling. Using 8 bit, the maximum output rate is 28860 Hz (57720 Hz if a Productivity screen is used).

Since Amiga does not have an audio resolution of 16 bit, 16 bit samples are converted realtime. You can choose between three algorithms:

- The " 8Bit - Standard" conversion converts the sample to 8 bit resolution realtime. Maximum output rate is 28860 Hz (57720 Hz Productivity). This is the fastest method, you should use it if you own a 68000 based Amiga.
- The "14Bit - Half Rate" conversion plays real 14 bit on any Amiga, using a small trick. Unfortunately, the output rate is halved to

14430 Hz (28860 Hz Productivity). This mode can be used on 68000 based Amigas, but they are drastically slowed down!

· The "14Bit - Mixed" conversion bases on another trick of playing 14 bit. The output rate is 28860 Hz (57720 Hz Productivity) again, but the result is not exactly as good as Half Rate.

The conversion algorithm and output rate is selected in the **Config** window.

Currently, no oversampling is implemented; the playback quality may be improved in the future. Anyhow, to gain best quality, you should select an output rate which is a multiple of the playback rate.

1.12 SoundBox: 4.3. Effects

SoundBox offers different effects:

· Restore Rate

Restores playback rate to the rate of the last loaded file.

· Flip Sign

Opposite to the Amiga, samples from PC and Mac are unsigned.

In this case, the display shows a chaotic zigzag, and a loud noise is produced only. This effect flips between signed and unsigned samples. If you load a RAW sample from PC/Mac, or if you are going to save a RAW sample for PC/Mac, you should use this effect.

· Optimize Length

This function cuts a pause that might be at the end of the current sample. The sample is cut to minimum length, but the acustical impression should remain untouched.

· SoundTracker Init

SoundTracker samples must have the first two bytes of the sample set to zero to avoid whistling.

· Reverse Sample

Mirrors the sample at the time axis. It is played backwards after that.

· Adjust DC Offset

Especially if you use a cheap sampler, the DC zero of the wave is not exactly the numerical value zero. This effect calculates the offset and eliminates it.

· Maximum Amplitude

Using this effect, sample is amplified to maximum amplitude.

You should by all means use this effect, before saving a 16 bit sample using 8 bit resolution.

· Fade At End

Shortly before it's end, the sample is faded out. So, a "knock" at the end of the sample is avoided.

You can select these effects from the "Effects" menu.

1.13 SoundBox: 4.4. Saving a sample

Using the menu item "Project/Save as..." or the button "Save", a file requester will pop up, asking for a file name to save the sample as. "Project/Save" uses the current name.

SoundBox uses the selected format and the selected playback rate.

Note that RAW samples cannot store the rate.

If you want to save a Stereo sample as Mono, you'll get the choice between saving the left channel only, the right channel only, or a mix of both channels (real Mono).

Important: Wave files only allow sampling rates of 11025 Hz, 22050 Hz or 44100 Hz. If the selected playback rate deviates from those rates, a requester will pop up, asking whether you want to use the original rate or one of the standard rates. I don't know if playback with non-custom rate works on other computers.

Additionally, SoundBox warns if you are going to use a resolution below 8 bit, since quality will be sharply reduced.

Saving may need long time, since, during the save process some calculations have to be made.

1.14 SoundBox: 5. Loop editor

The menu item "Project/Loop editor..." opens the Loop Editor window.

You can adjust loop marks here.

Start shows the starting position (counted in samples) of the loop.

End shows the ending position. Using '-1' as ending position, the real end of the sample is used.

It is important, that -- if you really want to use the loop -- you have to activate the "Loop?" button. Only then will the loop markers be saved!

Loop markers are not displayed yet.

RAW and Wave files cannot save loops. Your loop settings are lost if you're using these formats.

1.15 SoundBox: 6. Configuration

If you select "Project/Configs...", the configuration window will pop up.

The "Player Settings" field

- Productivity Screen Enable this button, if SoundBox is displayed on a Productivity screen (or if you use the AAA chipset ;). The output rate is doubled.
- Rate 8 Bit Output rate for all 8 bit samples
- Rate 16 Bit Output rate for all 16 bit samples
- Player Mode Using this gadget, you can select the playback algorithm for 16 bit samples (see [Playback](#)).
- Audio Filter If enabled, the hardware audio filter is activated (except on the Amiga 1000).

Please notice that a graphic board screen is not sufficient to enable Productivity Screen mode.

The "Loader/Saver" field

- Default Drawer Enter the drawer where you usually save samples into. By pressing the drawer gadget, a requester will pop up.
- RAW Rate All RAW files do not contain a sampling rate. Using this slider, you can select the default sampling rate for all RAW files.
- Always load as RAW If enabled, SoundBox reads any file as RAW file, independent of its real file format. Use this mode also if you want to read mangled samples.
- Save VOC extended Even in VOC mono files an extended header is saved, if this option is enabled.
- Adjust suffix Adjust the file name suffix fitting to the format that is used to save the file.

The "Display" field

- Exact Waveform SoundBox is able to display samples using two different methods. If not activated, only some portions of the sample are displayed, which is very fast, but by far not exact. If activated, each single sample is used for the waveform calculation.

This is rather slow (especially in large samples), but you can easily see the peak positions of the sample. If you own a fast processor, I suggest you enable this field.

"Save" Stores the settings into "ENVARC:SoundBox.prefs". When you start SoundBox the next time, these settings are used again.

"Use" (RETURN key) uses the settings until SoundBox is finished.

"Cancel" (ESC key) aborts the config editor and restores the old settings.

The window positions are also saved. They will be used if you start SoundBox next time.

Note that if you are not a registered user, you can neither load configurations, nor save them. Additionally, Productivity Mode is disabled.

1.16 SoundBox: 7. ARexx programming

For registered users, SoundBox provides an ARexx port, by which nearly any function can be controlled.

The port's name is "SOUNDBOX".

NOTE: Even the evaluation version requires rexxsys.library for technical reasons.

1.17 SoundBox: 7.1. DOUBLERATE

Syntax: DOUBLERATE

Beschreibung: Doubles the playback rate. Maximum is 60000 Hz.

Beispiele: DOUBLERATE

1.18 SoundBox: 7.2. FADEOUT

Syntax: FADEOUT

Description: The sample is faded out at the end (see menu item).

Examples: FADEOUT

1.19 SoundBox: 7.3. FILENAME

Syntax: FILENAME [NOPATH]

Description: 'result' contains the currently used path and file name.

If NOPATH is provided, the result is only the file name.

Examples: FILENAME

FILENAME NOPATH

1.20 SoundBox: 7.4. FLIPENDIAN

Syntax: FLIPENDIAN

Description: The notation of the sample will be flipped (see menu item).

It must be at least of 9 bit resolution!

Examples: FLIPENDIAN

FLIPE

1.21 SoundBox: 7.5. FLIPSIGN

Syntax: FLIPSIGN

Description: The sign of the sample will be flipped (see menu item).

Examples: FLIPSIGN

FLIPS

1.22 SoundBox: 7.6. GETLOOP

Syntax: GETLOOP LEFT/RIGHT/LOOP

Description: After that, 'result' contains the loop position. If

GETLOOP LOOP was provided, the result is 0 if loop

is disabled, -1 otherwise.

Examples: GETLOOP LEFT

GETLOOP RIGHT

GETLOOP LOOP

1.23 SoundBox: 7.7. GETSMP

Syntax: GETSMP FORMAT/CHANS/BITS/RATE/VOLUME/LENGTH

Description: GETSMP FORMAT returns the current format as string

("RAW", "IFF", "VOC", "WAVE", "AIFF", "AIFC",

"MAUD", "MAESTRO").

GETSMP CHANS returns number of channels used: Mono=1,

Stereo=2.

GETSMP BITS returns current resolution. 0 means

IFF-8SVX-CB-Mode.

GETSMP RATE returns current rate.

GETSMP VOLUME returns current volume.

GETSMP LENGTH returns length of each channel in byte.

Examples: GETSMP BITS

GETSMP LENGTH

1.24 SoundBox: 7.8. HALFRATE

Syntax: HALFRATE

Beschreibung: Halves the playback rate. Minimum is 5000 Hz.

Beispiele: HALFRATE

1.25 SoundBox: 7.9. MAXAMPLITUDE

Syntax: MAXAMPLITUDE

Description: Sample is amplified to maximum volume (see appropriate menu).

Examples: MAXAMPLITUDE

MAXAMP

1.26 SoundBox: 7.10. NEW

Syntax: NEW

Description: Clears the sample and frees the sample memory.

Examples: NEW

1.27 SoundBox: 7.11. OFFSET

Syntax: OFFSET [NOWARN]

Description: Adjusts the DC offset of the current sample (see appropriate menu). If NOWARN is provided, the sample is adjusted even if the offset exceeds the custom DC range. Otherwise, a requester will pop up.

Examples: OFFSET

OFFSET NOWARN

1.28 SoundBox: 7.12. OLDRATE

Syntax: OLDRATE

Description: Restores playback rate to the original rate of the file.

Examples: OLDRATE

1.29 SoundBox: 7.13. OPEN

Syntax: OPEN [FROM=FILE filename]

Description: Loads a sample into memory. Usually, a file requester will pop up, where user can choose the file to be loaded.

If you provide the optional FILE (or FROM), SoundBox reads this file immediately.

Examples: OPEN

OPEN FROM Samples:Test.IFF

OPEN "FILE=DF0:BigBang"

1.30 SoundBox: 7.14. OPTIMIZE

Syntax: OPTIMIZE

Description: Optimizes length of current sample (see appropriate menu).

Examples: OPTIMIZE

OPT

1.31 SoundBox: 7.15. PLAY

Syntax: PLAY

Description: Starts playback. If playback is already running, nothing happens.

Examples: PLAY

1.32 SoundBox: 7.16. QUIT

Syntax: QUIT [NOREQ]

Description: Terminate SoundBox. If NOREQ is not provided, user may be asked to confirm this action. Otherwise, SoundBox is shut down immediately.

Examples: QUIT

QUIT NOREQ

1.33 SoundBox: 7.17. REVERSE

Syntax: REVERSE

Description: The current sample is reversed (see appropriate menu).

Examples: REVERSE

1.34 SoundBox: 7.18. SAVE

Syntax: SAVE [TO=AS path/name] [REQ] [NOWARN] [FORCE]

Description: Saves the current sample.

If a file name is provided using "TO" or "AS", the sample will be saved using this file name.

"REQ" opens a file requester, where user can select the file name.

"NOWARN" suppresses any warning requester, and the sample is saved immediately. This is useful e.g. in script processing. Please note that also the stereo->mono requester is suppressed, and SoundBox mixes both channels.

"FORCE" replaces an existing file without previous confirmation.

Examples: SAVE

SAVE TO="Sample:Blast.VOC" NOWARN

SAVE AS RAM:Test.smp REQ

SAVE REQ

SAVE REQ FORCE

1.35 SoundBox: 7.19. SETLOOP

Syntax: SETLOOP [LEFT left] [RIGHT right] [ON/OFF]

Description: Sets the loop position at the provided place. Using ON and OFF, the loop is enabled or disabled.

Examples: SETLOOP "LEFT=40"

SETLOOP RIGHT -1 /* set to the end */

SETLOOP OFF /* turn loop off */

SETLOOP LEFT 20 RIGHT 50000 ON

1.36 SoundBox: 7.20. SETSMP

Syntax: SETSMP [FORMAT format] [CHANS channels] [BITS bits]
[RATE rate] [VOLUME volume]

Description: Sets the provided parameter in sample:

FORMAT The desired format is recognized by the first

letters: "R"=RAW, "I"=IFF, "V"=VOC, "W"=WAVE,

"AIFF"=AIFF, "AIFC"=AIFC, "MAU"=MAUD,

"MAE"=MAESTRO.

For future compatibility, you should always write the whole format name.

CHANS Number of channels: 1=Mono 2=Stereo

BITS Resolution: 1 to 16 bit. In IFF mode, you can select the combined mode using 0.

RATE Sets the sampling rate (between 5000 Hz and 60000 Hz).

VOLUME Sets the new volume (between 0 and 64).

Examples: SETSMP FORMAT VOC

SETSMP FORMAT IFF CHANS 2 BITS 0

SETSMP VOLUME 40 RATE 44100

1.37 SoundBox: 7.21. STINIT

Syntax: STINIT

Description: Initializes the sample for SoundTracker use (see appropriate menu).

Examples: STINIT

1.38 SoundBox: 7.22. STOP

Syntax: STOP

Description: Stops playback. If playback is already stopped, nothing will happen.

Examples: STOP

1.39 SoundBox: A.1. Summary of all Gadgets

Format field

Format (select format)

Mode (select channels)

Resn (select resolution)

Player field

Rate (playback rate)

Vol. (playback volume)

Play / Stop (start/stop playback)

Open (open a sample)

Save (save a sample)

The rate and volume slider can also be adjusted via shortcuts. If you press the appropriate key, the slider value is incremented. Pressing SHIFT and the shortcut key, the slider value is decremented again.

1.40 SoundBox: A.2. Summary of all Menus

Keyboard Shortcuts key are shown in parentheses. Use them with the right Amiga key.

Project

About... (?) Information about the program

Sample Info... (J) Information about current sample

Help... (H) Description of the online help system

.....

New (N) New sample: frees current from memory

Open... (O) Load a sample into memory

Reload (R) Load current sample into memory again

Save (S) Saves a sample

Save as... (A) Saves a sample, using file requester

.....

Configs... (C) Opens configuration window

Loop Editor... (L) Opens loop editor window

Quit (Q) Ends the program

Effects

Flip Sign (F) Flips between signed/unsigned

Flip Endian (P) Flips between Intel/Motorola

Optimize Length (T) Minimize the sample length

SoundTracker Init (I) Prepare as SoundTracker sample

.....

Reverse Sample (V) Turn the sample backwards

Adjust DC Offset (E) Adjust DC offset to 0

Max Amplitude (B) Amplify to maximum amplitude

Fade at end (D) Fade at sample end

Rate

Restore Rate (.) Restores original playback rate

.....

Half (-) Halves the playback rate

Double (+) Doubles the playback rate

.....

10000 Hz (1) Set rate to 10000 Hz

11025 Hz (2) Set rate to 11025 Hz

20000 Hz (3) Set rate to 20000 Hz

22050 Hz (4) Set rate to 22050 Hz

30000 Hz (5) Set rate to 30000 Hz

40000 Hz (6) Set rate to 40000 Hz

44100 Hz (7) Set rate to 44100 Hz

48000 Hz (8) Set rate to 48000 Hz

1.41 SoundBox: A.3. Supported File Formats

SoundBox supports all custom sound file formats in Mono/Stereo and all resolutions up to 16 bit.

The IFF sample format had to be extended, since Commodore failed to define a standard for 16 bit samples. I invented this format myself, based on the original 8SVX descriptions, but anyhow, I hope that my additions will be a new standard on Amiga! Please read the further paragraphs for more details.

SoundBox supports these formats:

IFF 8SVX

This is the standard sound format on Amiga. The Stereo files are AudioMaster compatible, since Commodore also failed to define a standard here. Their own Combined format is supported, too.

Not (yet?) supported are compression, multi octave, attack/sustain and sequences. A special Combined mode allows you to save 16 Bit samples into an 8SVX file (see [8SVX-Cb format](#)).

IFF 16SV

This is the new 16 bit IFF sound format on Amiga. From the basic concept, it is a 8SVX file, but the BODY chunk consists of 16 bit.

Not (yet?) supported are compression, multi octave, attack/sustain and sequences. By the way: this is the only 16 bit format supporting loops. (See [16SV format](#)).

RIFF-Wave

This format, which came from Windows®, is better supported by SoundBox than on a PC. Please note these limits if a Wave sample

must remain PC compatible: use only rates of 11025 Hz, 22050 Hz or 44100 Hz. Not supported are compressions, but as far as I know, there are none defined. Wave files do not generally support loops!

I've had no chance to check 12 bit WAVE files. So I cannot guarantee a working emulation!

VOC

This format was introduced by SoundBlaster®, and is nearly fully supported. Exceptions are compressions to 2.6 byte (should not be used anyhow) and a defined amount of repetitions, as well as multiple loops. The sampling rate of the first Voice-Data-Block is used. Later rate definitions are ignored.

I've had no chance to check Stereo VOC samples, especially using 2 and 4 bit compression. So I can only guess at a working emulation.

AIFF

The AIFF format comes from Apple Macintosh®. It is comparable to a standard IFF file.

AIFC

The AIFF format comes from Apple Macintosh®. It is comparable to a standard IFF file. Compared to the AIFF format, it is here also possible to compress the audio data. Anyhow, this is not supported by SoundBox yet.

MAUD

MAUD is a development of MacroSystem and Sek'd, and especially used in connection to the MaestroPro or Toccata sound board.

This format support 16 bit and 8 bit as well, but no loops!

Compression is not (yet) supported.

SoundBox only supports 8 and 16 bit resolution, and only up to two channels. MAUD is able to save other resolutions and more than two channels.

Maestro

The Maestro format is a simple structured format, produced by Samplitude. It supports 8 and 16 bit as well as Stereo, but no loops and only rates of 33kHz, 44100 Hz and 48kHz.

RAW

This is a plain sample without definitions about rate etc.

Please note that from its nature, RAW only supports 8 bit Mono.

Anyhow, you are able to select between 8 bit and 16 bit resolution.

SoundBox uses this format, if another format is not recognized or mangled.

RAW samples from PC and Macintosh can be converted using "Flip Sign".

1.42 SoundBox: B.1. The 8SVX Combined format

The 8SVX combined format is a special mix between 8 bit sample and 16 bit sample. Although the sample is really stored in 16 bit, even a standard 8 bit sampler can use the files. In this case, sample is "converted" during loading. Just try it out with all programs supporting 8SVX.

Construction: theoretically, there is no difference between 8SVX combined and standard 8SVX files. Even all data in BODY chunk remain 8 bit large. The trick is that another chunk, the "LBDY" (LSB BODY) chunk, is saved. The 16 bit samples are distributed as follows: the most significant 8 bit are stored into the BODY chunk, and the least significant 8 bit are stored into the LBDY chunk.

A program that doesn't recognize the Combined file, only reads the BODY chunk and skips the LBDY chunk. As you see, it only reads 8 bits.

A program supporting Combined file, reads BODY chunk as MSB and LBDY chunk as LSB.

This format has one big disadvantage: the conversion between those MSB/LSB chunks and a 16 bit sample is rather time consuming, since each sample must be split and joined later.

1.43 SoundBox: B.2. The 16SV format

The 16SV format is based on the 8SVX format. All chunk types exist, but values in the chunks (e.g. in VHDR) always refer to samples and not to offsets (i.e. Bytes). So you have to multiply loop start by two to get the real starting offset in the BODY chunk. Additionally, the file type is "16SV" instead of "8SVX".

The BODY chunk contains samples in word width, using the Motorola notation (MSB,LSB). Stereo samples are stored with all left channel's samples first, followed by all right channel's samples.

It is important that samples are always stored using 16 bit resolution.

If you e.g. sampled using 12 bit, you have to rotate the samples to 16 bit (asl #4,d0) before saving.

The only disadvantage is that programs which only support 8SVX format, cannot read these files; even loaded as RAW they seem to contain no sense.

Furthermore, a Stereo sample is not stored samplewise left/right, so playback of large samples from hard disk is not possible without time consuming seeks.

1.44 SoundBox: C.1. Frequently Asked Questions

· After starting from Shell, online help doesn't work.

1. Check to see if the file "SoundBox.guide" is in the SoundBox directory or the HELP:english/ drawer.
2. CD to the drawer where the guide lives before starting SoundBox.
3. V39 of the AmigaGuide library is missing.

· Playback sounds ugly.

1. You are not using the Productivity screen, and using output rates above 28kHz.
2. You are listening to a VOC sample with 4 or even 2 bit resolution.
3. Your Computer is too slow for your output rate.

· Playback is much too slow, but rate is adjusted right.

You are not using the Productivity screen, and using output rates above 28kHz.

· Playback has frequent drop outs or sticks.

Your Processor is too slow to prepare the outgoing sample data.

Decrement your output rate.

· I cannot do anything during playback.

Your output rate is too high or your processor too slow.

· I always get a message that audio channels could not be allocated.

Another program has allocated the audio channels before. Note that SoundBox requires all four channels. It cannot start if one single channel is missing.

· My system crashes during playback.

This happens only if another programs uses audio hardware without allocating it. Don't start such tools, or better delete them immediately.

· I cannot save my configurations.

This is only possible in the registered version.

· The ARexx port doesn't work.

This is only possible in the registered version.

1.45 SoundBox: C.2. Improvements

The following improvements are planned for the next releases:

- Improved playback quality using oversampling
 - Support of sound boards
-

- Universal RAW loader
- Further formats: Future sound, Sonix, Sun-Audio, ZyXEL ADPCM2/3, IFF-16SX, IFF-24SX; as well as quadrophonia and compressions
- ToolTypes, using Public Screens, sizeable main window (MUI?)

Please don't take this list as set in concrete. These are merely improvements I am considering.

1.46 SoundBox: C.3. Known Bugs

SoundBox has been tested using the following configurations.

- A4000/o3o (MMU,FPU) , Kick 3.0 ,12 MB RAM (12F/2C), 1GB HD, Fastlane, MaestroPro, Toccata, CyberVision(4MB), BSC Multi-I/O
- A4000/o3o (MMU,FPU) , Kick 3.0 , 6 MB RAM (4F/2C), 400MB HD, Emplant, MaestroPro
- A3000/o3o (MMU,FPU) , Kick 3.1 ,10 MB RAM (8F/2C), 1.4GB HD, MaestroPro, CyberVision(4MB)
- A4000/o3o , Kick 3.0 , 6 MB RAM (4F/2C), 261MB HD
- A 500/ooo , Kick 2.04, 3 MB RAM (2F/1C), 42MB HD, GVP Series II host adapter
- A 600/o2o (FPU) , Kick 3.1, 10 MB RAM (8F/2C), 1.2GB HD

SoundBox does NOT work on DraCo workstations (yet).

These are the known bugs:

- It is not possible to playback samples loaded into virtual memory. After storing, SoundBox does not react to anything any more. I already know what mistake I've made, but it would take MUCH time to remove it again. Unfortunately, I currently do not have MUCH time... :(
- Starting with a sample size of about 16MByte, the display (including position pointer) and the effect "Adjust DC Offset" does not work properly any more. Registered users may request a (slower) special version if they should get into trouble.
- If launched from CLI, one harmless enforcer hit occurs. It would take major changes to the startup code to remove it.
- One mungwall hit occurs when closing the configuration window. This one is ugly, but rather harmless.
- I got one report that SoundBox does not work properly together with Executive. On my tests, everything went fine, but please be warned.

1.47 SoundBox: C.4. History

V2.9b · Implemented FLIPENDIAN

- Minor bugfixes

V2.8b · RAW with 16 bit resolution now [Frank Wille]

V2.7b · Found some WAVE files which are stored with incorrect chunk lengths. SoundBox tries to read them now, but puts a warning!

- Implemented AIFC file format, but without compression (yet).

- Some minor corrections to the guide file

- Removed superfluous Kick1.3 checking

- Improved PAL/NTSC rate calculation

V2.6b · Fixed bug in the WAVE saving routine. Now WAVE files should also be readable from PC [K-P Koljonen]

- Implemented Rate menu. Rates can now be directly set, halved, doubled.

- Two new ARexx commands: HALFRATE and DOUBLERATE

V2.5b2 · Finally, English guide is available! :-) Thanks to Colin Thompson for checking my Baad Enkleesh ;)

- MagicWB icons and a dock icon included, drawn by Colin Thompson.

V2.5b · Extended ARexx command 'OFFSET': warning requesters can be suppressed now.

- Extended ARexx command 'SAVE': warning requesters can be suppressed now, and existing files may be overwritten without confirmation. [Colin Thompson]

V2.4b2 · In b1, screen flashed green during playback, because I forgot to remove a debug help.

V2.4b · Playback part heavily revised. Now, it also supports VMM. The main calculations are removed from audio interrupts, but the audio buffers had to be enlarged. SoundBox now reacts rather slow to rate/volume adjustments.

- Finally, it seems that I found the playback bug! :-)

- At sample ending, no noise is produced any more.

- once/loop now localized.

- Default rate for RAW files is configurable.

- New waveform display method: MIN/MAX over the whole sample.

V2.3 · Bug in MAUD saving routine, lead to wrong samples in some programs.

V2.2 · Further bugfix try. Sample playback still has heavy sync problems, though they should be rather seldom.

- SoundBox window is an AppWindow now!
 - Display now also shows if sample has a loop.
 - V2.1 · Bugfix: even Mono samples sound Stereo sometimes. :)
 - ProVission: removed serious enforcer hit
 - V2.0 · ShareWare concept now!
 - Stores position of all windows. Loop window may remain open.
 - New version counting to avoid the .99 dilemma... :-)
 - V1.99 · Online help did not work
 - Quit confirmation only appears if sample has been changed.
 - Different paths for loading and saveing [R. Riedel]
 - V1.98 · Bug in IFF saving routine: Combined Mono did not produce a LBDY chunk.
 - Bug in IFF saving routine: 16 bit samples without loops were saved bad.
 - V1.97 · Minor bugfix in ARexx port
 - (Hopefully) removed problems with 68040/Copyback [Holger Jakob]
 - Bugfix: still crashed if not enough memory available [Elmar Fasel, Andreas Benden]
 - V1.96 · Bugfix: crashed if not enough memory available [Andreas Benden, Christian Buchner]
 - Bugfix: sample info showed wrong values after using Save As [Andreas Benden]
 - Now using PhxLnk 4.0
 - V1.95 · Now using PhxAss 4.0
 - amigaguide.library V39+ required for online help
 - "Help" menu item is disabled now if no online help is available
 - Save As requester title disrupted if "Adjust Suffix" is disabled [Holger Jakob]
 - V1.90 · A mistake in calculations produced loud background noise in mixed algorithm.
 - V1.80 · AIFF fully implemented
 - Removed bug in 2 bit VOC [Holger Jakob]
 - V1.70 · IFF and RIFF samples with odd length can now be loaded, too [Elmar Fasel, Andreas Benden]
 - AIFF, MAUD and Maestro are supported
 - I forgot to bump the version string [Holger Jakob]
 - Sample path is not reset after saving configurations [Holger Jakob]
 - V1.60 · Removed enforcer hits :-)
-

- Mixed algorithm replaces Dynamic Range

V1.50 · ARexx port implemented

- 14 bit playback quality improved :-)
- Bugfix: Wave with rate requester saved forever
- 14 bit Dynamic Range algorithm implemented
- Player supports loops now
- Help box and online help is supported now :-)
- Output rate now honours hardware restrictions

V1.40 · From now on, crippled version for unregistered user

- Improved 14 bit sound quality
- Bug: optimize failed on right channel
- Loop editor and config window now work parallel to the main window

V1.30 · locale.library is supported. Languages: English, Deutsch

- Configs editor: improved productivity rates handling
- Implemented loop editor

V1.20 · Removed serious bug in saver: might even crash your hard disk

- VOC saver: Mono now produces Extended block, too (configs)
- Implemented Reload
- Removed playback crackling
- Zoom gadget (iconify) [Sven Arke]
- Shows sample name in window title [Sven Arke]
- Shows sample length and resolution [Sven Arke]
- Shows playback position
- Menus and gadgets are disabled if no sample is currently loaded
- Rate restore [Sven Arke]

V1.10 · Translated to German

- Removed some bugs

V1.00 · SoundBox loads and saves IFF, VOC, WAVE and RAW samples in 1-16 bit and Mono/Stereo.

- Font sensitive GUI
 - Some effects
 - Playback in 8/14 bit resolution and realtime rate conversion
-

1.48 SoundBox: C.5. Credits

A big Thank You goes out to:

- All registered users!
- Colin Thompson for correcting my English translation, and the nice MagicWB icons, thanks!
- The editors of the German computer magazine c't for their article about VOC- and Wave format (though it could be more detailed ;)
- Henning Friedl of MacroSystem for his kind help
- Nico François for reqtools.library
- My beta testers Sven Arke, Andreas Benden, Elmar Fasel and Holger Jakob (also for their great ideas!)
- AmiNet and TIME

—

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\X/ -- Amiga -- Motorola Inside... --

Amiga -- Back For The Future!

1.49 SoundBox: D. Patches

The Tool "PatchEditor" (from the support mailbox) allows to change some special SoundBox parameter:

ARexx port name Name of the ARexx port (default "SOUNDBOX")

Localizion Enables locale.library. If disabled, SoundBox always opens in English (default TRUE)

Main Wdw Scaling If enabled, main window is font sensitive.

If disabled, topaz.8 font is used (default TRUE)

Process name Name of the process (default "SoundBox")

Please note that you are NOT allowed to distribute a program modified by PatchEditor!

1.50 SoundBox Online Help: Help System

For each gadget and menu item, you can get an online help.

To get help on gadgets, you have to move the mouse pointer to the desired gadget. In the help box below window title, you can read a short description about this gadget. If you press the <HELP> key, you will get detailed help.

To get help on menus, you have to select the menu item you want

help on, but don't release the mouse button, then press the <HELP> key instead. You will get detailed help about this menu item. You can also press <HELP> without selecting a menu item or moving the mouse pointer to a gadget. In this case, you will get the TOC of this guide.

Some gadgets and menus may be ghosted. In this case, you cannot currently use this function, but you may still get help using the <HELP> key.

When you have finished reading the docs, close the document by clicking the close gadget.

Or you can select a topic to get further information:

[Table Of Contents](#)

[Summary of all Gadgets](#)

[Summary of all Menus](#)

[Configuration](#)

By the way: this online help is running asynchronous to the main program. You may size down this window and continue using SoundBox.

1.51 SoundBox Online Help: Main Window / Format

Shortcut: F

ARexx : [GETSMP SETSMP](#)

The current format is shown in this cycle gadget.

After a sample has been loaded, this gadget automatically moves to the appropriate file format.

If you save a sample, this file format will be used.

RAW Simple sample format without information like rate or resolution. RAW samples always are 8 bit mono.

IFF Standard sound format on Amiga. Supports 8 and 16 bit as well as Mono, Stereo and Loops.

VOC The Creative Voice format was created on IBM compatible PC.

It supports Mono, Stereo, as well as Loops and resolutions of 2, 4, or 8 bit.

Wave The RIFF Wave format also came from IBM compatible PC. It supports Mono, Stereo, as well as resolutions of 8, 12 and 16 bit. Loops are not supported, and will be lost.

AIFF The AIFF format is the standard sound format on Apple Macintosh. It supports Mono, Stereo, as well as resolutions of 8 and 16 bit. Loops are not supported.

AIFC The AIFC format is the new standard sound format on Apple Macintosh. It supports Mono, Stereo, as well as resolutions of 8 and 16 bit. Loops are not supported. Additionally, the file may be compressed.

MAUD MAUD is (according to MacroSystem) the official 16 bit format for the Amiga. Mono and Stereo is supported as well as resolutions of 8 and 16 bit. Loops are not supported.

Maestro This format is generated by Samplitude and is a rather simple format, supporting Mono, Stereo, 8 and 16 bit samples. Loops are not supported, though.

1.52 SoundBox Online Help: Main Window / Mode

Shortcut: M

ARexx : **GETSMP SETSMP**

Channel mode is displayed here.

After a sample has been loaded, this gadget automatically moves to the appropriate number of channels.

If you save a sample, the current setting will be used.

If a stereo sample has been loaded, the upper waveform in the display field represents the left channel, the lower is the right channel.

If you want to save a Stereo sample as Mono, you will get the choice between saving the left channel only, the right channel only, or a mix of both channels (resulting a real Mono).

1.53 SoundBox Online Help: Main Window / Resn.

Shortcut: R

ARexx : **GETSMP SETSMP**

Resolution of the current sample is displayed here.

After a sample has been loaded, this gadget automatically moves to the appropriate resolution.

If you save a sample, the current setting will be used.

The minimum and maximum resolution and step depend on the selected format. If you change format, SoundBox automatically chooses the resolution where the least quality as possible is lost.

You can also select the next resolution by pressing the shortcut.

<SHIFT> and the shortcut select the previous resolution.

The following resolutions are possible:

Raw 8 Bit, 16 Bit

IFF 8 Bit and 16 Bit, and a special 16 Bit Combined format

VOC 2 Bit, 4 Bit and 8 Bit

Wave 8 Bit, 12 Bit and 16 Bit

AIFF 8 Bit, 16 Bit

AIFC 8 Bit, 16 Bit

MAUD 8 Bit, 16 Bit

Maestro 8 Bit, 16 Bit

1.54 SoundBox Online Help: Main Window / Rate

Shortcut: A

ARexx : **GETSMP SETSMP**

The playback rate is displayed here, measured in Hertz.

After a sample has been loaded, this gadget automatically shows the appropriate rate.

If you save a sample, the current setting will be used.

You can adjust the rate by moving the slider body. With the hotkey, rate is increased by 10 Hz. Using <SHIFT> and the hotkey, the rate is decreased by 10 Hz. You can also change the rate during playback.

The menu item **Effects/Restore Rate** restores the playback rate to the old rate.

Note that you cannot save rates in RAW samples. Additionally, Wave samples do only allow rates of 11025 Hz, 22050 Hz and 44100 Hz.

1.55 SoundBox Online Help: Main Window / Vol.

Shortcut: L

ARexx : **GETSMP SETSMP**

You can adjust the playback volume using this slider.

You can adjust the volume by moving the slider body. With the hotkey, volume is increased. Using <SHIFT> and the hotkey, the rate is decreased.

You can also change the volume during playback.

Note that volume will not be saved.

1.56 SoundBox Online Help: Main Window / Play/Stop

Shortcut: P , Enter , Return

ARexx : **PLAY STOP**

Using this gadget, you can start playback of the current sample.

Playback uses the current rate and volume, and the player set in the configuration window.

A further press on this gadget stops playback.

You can only select this gadget if a sample has been loaded.

1.57 SoundBox Online Help: Main Window / Open

Shortcut: O

ARexx : **OPEN**

Menu : **Project/Open...**

This gadget will open a requester, by which you can select a file to be loaded.

1.58 SoundBox Online Help: Main Window / Save

Shortcut: S

ARexx : **SAVE**

Menu : **Project/Save as...**

This gadget will pop up a requester, by which you can select a file name. The current sample is stored into this file, using all settings of the Format group, and the rate of the Player group.

In some cases, some more requester may pop up, asking for channel to be saved, or a correct rate.

You can only select this gadget if a sample has been loaded.

1.59 SoundBox Online Help: Menu Project / Info...

Shortcut: ?

A requester will pop up, showing some information about SoundBox.

Here you can find my E-Mail address and the name of the ARexx port.

1.60 SoundBox Online Help: Menu Project / Sample Info...

Shortcut: J

This item will show a requester, containing the most important information about the current sample:

Sample Length: 172486 Bytes < length of sample in byte

Resolution: 8 Bits < resolution in bits

Channel mode: Mono < Mono or Stereo

Loop start: 0 < loop starting position in samples

Loop length: 0 Smp's < loop length in samples

Original format: IFF < Format of source sample

Original rate: 7457 Hz < Rate of source sample

Player rate: 44100 Hz < Output rate

Volume: 64 < Output volume

You can only select this item if a sample has been loaded.

1.61 SoundBox Online Help: Menu Project / Help...

Shortcut: H

Online help is started by this item. A text is shown, describing how you can get help to different topics.

1.62 SoundBox Online Help: Menu Project / New

Shortcut: N

ARexx : **NEW**

The current sample is freed.

All changes will be lost if they are not saved before.

1.63 SoundBox Online Help: Menu Project / Open...

Shortcut: O

ARexx : **OPEN**

Gadget : **Open**

This gadget will open a requester, by which you can select a file to be loaded.

1.64 SoundBox Online Help: Menu Project / Reload

Shortcut: R

The recently loaded/saved sample will be loaded again. All changes made to the current sample since then, will be lost.

You can only select this item if a sample has been loaded.

1.65 SoundBox Online Help: Menu Project / Save

Shortcut: S

ARexx : **SAVE**

The sample is stored to the currently used name. No requester will pop up.

You can only select this item if a sample has been loaded.

1.66 SoundBox Online Help: Menu Project / Save as...

Shortcut: A

ARexx : **SAVE**

Gadget : **Save**

This gadget will pop up a requester, by which you can select a file name. The current sample is stored into this file, using all settings of the Format group, and the rate of the Player group.

In some cases, some more requester may pop up, asking for channel to be saved, or a correct rate.

You can only select this item if a sample has been loaded.

1.67 SoundBox Online Help: Menu Project / Configs...

Shortcut: C

The config editor window will be opened. The main window remains functional.

Please read the online help for the config editor for further details.

1.68 SoundBox Online Help: Menu Project / Loop Editor...

Shortcut: L

The loop editor window will be opened. There you can adjust the loop points of the sample. Main window remains fully functional.

Please read the online help of the loop editor for further details.

1.69 SoundBox Online Help: Menu Project / Quit

Shortcut: Q

ARexx : **QUIT**

Gadget : Close gadget of the main window

SoundBox will be terminated. All windows are closed and memory will be freed.

1.70 SoundBox Online Help: Menu Effect / Restore Rate

Shortcut: .

ARexx : **OLDRATE**

If you have changed the playback rate, and want to restore the original rate, then you may simply call this function.

You can only select this item if a sample has been loaded.

1.71 SoundBox Online Help: Menu Effect / Flip Sign

Shortcut: F

ARexx : **FLIPSIGN**

Flips between signed and unsigned sample.

Amiga requires signed samples, but most PC and Macintosh samples are unsigned. You can convert such samples, using this item.

You can only select this item if a sample has been loaded.

1.72 SoundBox Online Help: Menu Effect / Flip Endian

Shortcut: P

ARexx : **FLIPENDIAN**

Flips between Intel (little endian) and Motorola (big endian) notation.

Amiga requires big endian samples, but most PC samples are little endian. You can convert such samples, using this item.

You can only select this item if a sample has been loaded which has at least 9 bit resolution.

1.73 SoundBox Online Help: Menu Effect / Optimize Length

Shortcut: T

ARexx : **OPTIMIZE**

The current sample is cut to minimum length.

You can only select this item if a sample has been loaded.

1.74 SoundBox Online Help: Menu Effect / SoundTracker Init

Shortcut: I

ARexx : **STINIT**

If you want to use the current sample as RAW sample for Soundtracker music, you should use this function before saving.

The first two bytes of the sample are cleared, this avoiding a whistling during playback.

You can only select this item if a sample has been loaded.

1.75 SoundBox Online Help: Menu Effect / Reverse Sample

Shortcut: V

ARexx : **REVERSE**

The current sample is reversed, thus played backwards.

You can only select this item if a sample has been loaded.

1.76 SoundBox Online Help: Menu Effect / Adjust DC offset

Shortcut: E

ARexx : **OFFSET**

Mainly, if sample has been digitized by cheap audio samplers, it may happen that the waveform has an offset from zero.

This function calculates the offset and moves the sample back to the real zero line.

You can only select this item if a sample has been loaded.

1.77 SoundBox Online Help: Menu Effect / Max Amplitude

Shortcut: B

ARexx : **MAXAMPLITUDE**

The sample is amplified to maximum amplitude.

If you want to save 16 bit samples as 8 bit, you should use this function before saving. loss of information is minimized and noise is reduced.

You can only select this item if a sample has been loaded.

1.78 SoundBox Online Help: Menu Effect / Fade at end

Shortcut: D

ARexx : **FADEOUT**

Using this effect, the sample is faded at the end. If there is a knocking at the end, you can avoid it by using this function.

I suggest you use "Adjust DC offset" before using this function.

You can only select this item if a sample has been loaded.

1.79 SoundBox Online Help: Menu Rate / Half

Shortcut: -

ARexx : **HALFRATE**

This menu item halves the playback rate (i.e. lowering it by one octave). A minimum of 5000 Hz can't be exceeded.

You can only select this item if a sample has been loaded.

1.80 SoundBox Online Help: Menu Rate / Double

Shortcut: +

ARexx : **DOUBLERATE**

This menu item doubles the playback rate (i.e. rising it by one octave). A maximum of 60000 Hz can't be exceeded.

You can only select this item if a sample has been loaded.

1.81 SoundBox Online Help: Menu Rate / ????? Hz

Shortcut: 1,2,3,4,5,6,7,8

You can choose a constant Rate by this menu item. You can find the most used rates in this menu.

You can only select these items if a sample has been loaded.

1.82 SoundBox Online Help: Loop Editor / Start

Shortcut: S

ARexx : **GETLOOP SETLOOP**

Menu : Main window: Project/Loop Editor...

Here you can adjust the starting position of the playback loop. When playback reaches the end marker of the sample, playback is continued at this marker. The unit is samples, not bytes (i.e. 16 bit resolution:

1 sample = 2 byte).

1.83 SoundBox Online Help: Loop Editor / End

Shortcut: E

ARexx : **GETLOOP SETLOOP**

Menu : Main window: Project/Loop Editor...

Here you can adjust the ending position of the playback loop. When playback reaches this marker, playback is continued at the start marker. The unit is samples, not bytes (i.e. 16 bit resolution:

1 sample = 2 byte).

If you enter '-1' here, the ending position is automatically set to the end of the sample.

NOTE: If both the start and end marker are identical, the sample will not seem to be played if **Play** is pressed. If you turn off the loop playback using **Loop?** gadget, the sample will be played back again.

1.84 SoundBox Online Help: Loop Editor / Loop?

Shortcut: L

ARexx : **GETLOOP SETLOOP**

Menu : Main window: Project/Loop Editor...

This button controls the playback loop.

If disabled (no checkmark), the playback loop is turned off. The loop markers will not be saved!

If enabled (checkmark), the playback loop is turned on, and loop markers are used. The markers will also be saved at appropriate formats (IFF and VOC).

1.85 SoundBox Online Help: Config Editor / Productivity Screen

Shortcut: P

Playback rate of Amiga hardware can be doubled if a productivity screen is displayed during playback. This mode is available on ECS or AGA chipsets only, and a Multisync monitor is required. You can enable Productivity mode in the ScreenMode preferences editor.

WARNING! If you do not have a Multisync monitor, you must not use Productivity mode. Your monitor may be seriously damaged!

Note that using a graphics board is not sufficient to use this mode.

You **MUST** use a productivity mode. There are some programs in AmiNet which set a productivity screen in background, so even graphics board

users may use this function.

It is not dangerous to select this field, when Productivity mode is not used. No hardware will be damaged, but playback quality suffers if you use output rates above 28860 Hz.

This function is only available for registered users.

1.86 SoundBox Online Help: Config Editor / Rate 8 Bit

Shortcut: R

Using this slider, you can adjust the output rate for all 8 bit samples. Range is from 10083 Hz up to 28867 Hz (57734 Hz on productivity mode). During playback, the sample is calculated to this rate.

By shortcut, you can increase rate to the next value. Using <SHIFT> and the shortcut, you decrease rate to the previous value.

The higher the rate is, the better is the playback quality, but the more processor power is needed. You should lower the rate if you have a slow processor (68000) and/or make time consuming work parallel to playback.

The odd values and the logarithmic meter of this slider comes from Amiga's audio hardware, which can only use very special values.

1.87 SoundBox Online Help: Config Editor / Rate 16 Bit

Shortcut: A

Using this slider, you can adjust the output rate for all 16 bit samples. Range is from 10083 Hz up to 28867 Hz (57734 Hz on productivity mode). During playback, the sample is calculated to this rate.

By using the shortcut, you can increase rate to the next value.

Using <SHIFT> and the shortcut, you can decrease rate to the previous value.

The higher the rate is, the better is the playback quality, but the more processor power is needed. You should lower the rate if you have a slow processor (68000) and/or make time consuming work parallel to playback.

The odd values and the logarithmic meter of this slider comes from Amiga's audio hardware, which can only use very special values.

NOTE: in "14 bit half rate" mode, output rate will be halved!

1.88 SoundBox Online Help: Config Editor / Player Mode

Shortcut: M

Using this gadget, you can select the playback algorithm for 16 bit samples. You have the choice between:

8Bit - standard Sample is calculated down from 16 to 8 bit during playback. This is less time consuming and allows a normal output rate range, but playback quality will be poor.

14Bit - half rate Sample is played back in real 14 bit on any Amiga, though some more processor time is used. Anyhow, playback rate is halved and find it's limit at 14430 Hz (Productivity: 28860 Hz).

14Bit - mixed Sample is played back in real 14 bit on any Amiga, and the full output rate range is used. Compared to "Half Rate" mode, this mode produces a little bit more noise on many Amigas.

See [Technical description](#) for more details.

By using the shortcut, you can toggle to the next algorithm. Using <SHIFT> and the shortcut, you will toggle to the previous.

1.89 SoundBox Online Help: Config Editor / Audio Filter

Shortcut: F

Using this gadget, you can enable a hardware audio filter during playback. If turned on, all frequencies above 7 kHz are cut, minimizing noise. Turning off the audio filter will result in a better playback quality, especially at the high playback rates which are used nowadays.

Please note that the hardware audio filter of Amiga 1000 cannot be turned off. This Gadget does not work here.

It is normal that the Power LED is toggled, too.

1.90 SoundBox Online Help: Config Editor / Default Drawer

Shortcut: D

Select your sample drawer here. If SoundBox is started, all file requesters will start at this drawer. This will become the default drawer for loading and saving samples.

1.91 SoundBox Online Help: Config Editor / Default Drawer

By pressing this button, a requester is popped up, where you can easily select your sample drawer.

1.92 SoundBox Online Help: Config Editor / Always load as RAW

Shortcut: Y

If enabled, all samples are recognized as RAW sample only, independent from it's real format.

Use this option if you want to load a mangled sample file.

1.93 SoundBox Online Help: Config Editor / Save VOC extended

Shortcut: E

If enabled, SoundBox stores the VOC sample's Extended Block in any case. Normally, this block is only saved from Stereo samples.

Older and simple programs may be confused by this block!

1.94 SoundBox Online Help: Config Editor / Adjust suffix

Shortcut: X

If this field is enabled, the proper suffix will be added to the end of the base filename.

RAW no suffix ("foobar")

IFF ".iff" ("foobar.iff")

VOC ".voc" ("foobar.voc")

Wave ".wav" ("foobar.wav")

AIFF ".aiff" ("foobar.aiff")

AIFC ".aifc" ("foobar.aifc")

MAUD ".maud" ("foobar.maud")

Maestro ".maestro" ("foobar.maestro")

The old suffix is replaced.

If this option is disabled, the sample name is not changed.

1.95 SoundBox Online Help: Config Editor / Save

Shortcut: S

All current settings are saved, and config editor is closed.

Additionally, all window positions are snapshotted.

This button is available to registered users only.

1.96 SoundBox Online Help: Config Editor / Use

Shortcut: U , Enter , Return

The current settings are used (but not saved), and config editor is closed. These settings remain until SoundBox is finished.

1.97 SoundBox Online Help: Config Editor / Cancel

Shortcut: C , Esc

Config editor is closed. All changes will be lost!

1.98 SoundBox Online Help: Config Editor / Exact Waveform

Shortcut: T

SoundBox has two ways of displaying waveforms.

If this field is disabled, only portions of the sample are displayed.

This method is very fast, especially on large samples, but the display cannot be used to see maximum amplitude, since most parts of the sample are simply ignored. Anyhow, you should select this mode if you use VMM and large samples.

If enabled, SoundBox requires more time to display the sample, but you can easily see the parts of maximum amplitude, since ALL samples are considered for the output.

If you have a fast processor and/or use short samples only, I suggest to enable this mode.

1.99 SoundBox Online Help: Config Editor / RAW Rate

Shortcut: W

In RAW files, there is no information about playback rate.

You can adjust the default playback rate for RAW samples, using this slider.

By using the shortcut, you can increase rate by 10 Hz. Using <SHIFT> and the shortcut decreases rate by 10 Hz.