Change History

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This file contains a list of all changes starting after the release of

sox-11gamma, followed by a list of prior authors and features.

$ox-14.4.2 2015-02-22

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Previously deprecated features that have been removed in this release:

Deprec- Feature [O(ption)]

ated in [F(ormat)] [E(ffect)] Replacement

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14.3.0 O -1/-2/-3/-4/-8 -b

14.3.0 O -s/-u/-f -e

14.3.0 O -A/-U/-o/-i/-a/-g -e

14.4.0 E swap with parameters remix

14.4.0 E mixer remix

14.4.1 OpenMP < 3.0 OpenMP >= 3.0

14.4.1 F ffmpeg ffmpeg/avconv via pipe

File formats:

o Add optional support for reading Ogg Opus files. (John Stumpo)

o Fix for max size text chunks in aiff files. (cbagwell)

o Add reading support for RF64 WAV files. (Dave Lambley)

o Work around for libsndfile created RF64 files with invalid

sizes. (Dave Lambley)

o Detect MS ADPCM WAV files with invalid blocks. (cbagwell)

o Detect Sphere files with invalid header sizes. (cbagwell)

Effects:

o 'Deemph' can now also be used at 48kHz sample rate. (robs)

o 'Rate' now much faster in many cases. (robs)

o Allow sending spectrograms to stdout. (Ulrich Klauer)

o Allow use of Dolph window with spectrograms. (robs)

o Allow mixing time and sample-count arguments for the delay

effect, and for spectrogram -S and -d. (Ulrich Klauer)

o Support multi-channel LADSPA plugins. (Eric Wong)

o Support infinite repetition with repeat. (Ulrich Klauer)

o Improved pink noise frequency response in synth. (robs)

o Extended syntax for specifying audio positions to several

effects. (Ulrich Klauer)

o Fix integer overflow in mcompand. [3590093] (Guido Aulisi)

o Add optional latency compenstation for LADSPA plugins. (Eric Wong)

Other new features:

o New -p option for soxi to display sample precision. (Ulrich Klauer)

o New libsox example6: give explicit output attributes. (robs)

Internal improvements:

o Speed optimization for effects that operate on channels

independently. (Ulrich Klauer)

o Fix memory leaks. (Ulrich Klauer)

o Most internal symbols (lsx\_\*) are no longer exported. (Ulrich Klauer)

sox-14.4.1 2013-02-01

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Newly deprecated features (to be removed in future):

Deprec- Feature [O(ption)] Removal

ated in [F(ormat)] [E(ffect)] Replacement due after

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14.4.1 OpenMP < 3.0 OpenMP >= 3.0 14.4.1

14.4.1 F ffmpeg ffmpeg/avconf via pipe 14.4.1

File formats:

o Fix pipe file-type detection regression. (robs)

o MAUD write fixes. [3507927] (Carl Eric Codere and Ulrich Klauer)

o Fix crash when seeking within a FLAC file. [3476843] (Eric Wong)

o Fix Ogg Vorbis files with certain numbers of channels being

truncated. (Ulrich Klauer)

o Fix reading 64-bit float WAVs. [3481510] (nu774 and Ulrich Klauer)

o Fix potential buffer overrun when writing FLAC files directly via

sox\_write(). [3474924] (Eric Wong)

Audio device drivers:

o Check whether pulseaudio is available before choosing it as

default. (robs)

Effects:

o Restore 8 seconds default for spectrogram, if the input length is

not known. (Ulrich Klauer)

o Set output length for splice to unknown instead of 0. (Ulrich Klauer)

o Increase maximum width for spectrograms. (Ulrich Klauer)

o Fix memory leaks in LADSPA effect. (Eric Wong)

o Fix hang in several effects (rate, tempo, and those based on

dft\_filter) when processing long files. [3592482, 3594822] (MrMod)

o Prevent (m)compand from tampering with their arguments. (Ulrich Klauer)

Other bug fixes:

o Fix input length calculation for combine methods other than

concatenate. (Ulrich Klauer)

o Fix to configure.ac to work with Autoconf 2.69. [3600293] (cbagwell)

o Use binary mode for pipes on all Windows compilers, rather than

MSVC only. [3602130] (Ulrich Klauer)

sox-14.4.0 2012-03-04

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Previously deprecated features that have been removed in this release:

Deprec- Feature [O(ption)]

ated in [F(ormat)] [E(ffect)] Replacement

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14.3.0 O --interactive --no-clobber

14.3.0 E filter ~= sinc

14.3.0 E norm -b, norm -i gain -B, gain -en

14.3.0 PLAY\_RATE\_ARG SOX\_OPTS

14.2.0 E key alias pitch

14.2.0 E pan ~= remix

14.1.0 E resample alias rate

14.1.0 E polyphase alias rate

14.1.0 E rabbit alias rate

14.3.1 F sndfile: sndfile 1.0.11 sndfile > 1.0.11

14.3.0 F flac: libFLAC < 1.1.3 libFLAC >= 1.1.3

14.3.1 F mp3: lame 3.97 lame > 3.97

Newly deprecated features (to be removed in future):

Deprec- Feature [O(ption)] Removal

ated in [F(ormat)] [E(ffect)] Replacement due after

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14.4.0 E mixer remix 14.4.0 + 1 year

14.4.0 E swap with parameters remix 14.4.0

Previously deprecated features (to be removed in future):

Deprec- Feature [O(ption)] Removal

ated in [F(ormat)] [E(ffect)] Replacement due after

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14.3.0 O -1/-2/-3/-4/-8 -b 14.4.0

14.3.0 O -s/-u/-f -e 14.4.0

14.3.0 O -A/-U/-o/-i/-a/-g -e 14.4.0

File formats:

o Mention in man pages that WAV files support floating point encodings.

o Add support for floating point encodings in AIFF-C files. (Ulrich Klauer)

o Pad WAV data chunk to an even number of bytes (as required by the

specification). [3203418] (Ulrich Klauer)

o Add optional MP2 write support with twolame library. (Paul Kelly)

Audio device drivers:

o Give pulseaudio driver higher priority than alsa or oss now that

its proven stable and gives user more features; such as per app

volume control. (cbagwell)

o Fix bug when specifying OSX coreaudio device name. Would only

search for first 3 devices. (cbagwell)

o Fix sox hangups are exit when using coreaudio. (cbagwell)

o Improve buffering in coreaudio driver (Michael Chen)

o Support enabling play/rec mode when user invokes sox as either

play or play.exe on windows. (cbagwell)

o Fix compile of sunaudio driver on OpenBSD (cbagwell)

Effects:

o Improvements to man pages for tempo effect. Really made in 14.3.2.

(Jim Harkins).

o New upsample effect. (robs)

o Fix to effects pipeline to let fade effect specify time from end of

file again. (cbagwell and Thor Andreassen)

o Fix man page default error for splice effect. (Ulrich Klauer)

o Enable support for --plot option on biquad and fir effects. (Ulrich Klauer)

o Effects chain can now be unlimited in length. (Ulrich Klauer)

o Fix newfile/restart effects when merging or mixing files. (Ulrich Klauer)

o Fix crashes in compand and mcompand effects. [3420893] (Ulrich Klauer)

o Let the delay effect gracefully handle the special case that a delay can

be more than the input length. [3055399] (Ulrich Klauer)

o New hilbert and downsample effects. (Ulrich Klauer)

o Fix problem where fade would sometimes fail if specifying a fade-out

immediately after a fade-in. (robs)

o Stricter syntax checking for several effects (might reveal bugs hidden

in existing scripts). (Ulrich Klauer)

o Calculate output audio length for most effects. (Ulrich Klauer)

o Fix problems with several effects when the buffer size was not evenly

divisible by the number of channels. [3420899] (Ulrich Klauer)

o Complete rewrite of the trim effect with extended syntax (backwards

compatible) and capabilities. [FR 2941349] (Ulrich Klauer)

o Fix trim optimization unexpectedly seeking backwards. (Ulrich Klauer)

o Prevent samples from getting lost at effects chain transitions in

multiple effects chain/multiple output modes. (Ulrich Klauer)

Misc:

o Minor improvements to the man page. (Ulrich Klauer)

o When using pipes (-p) on Windows, set file mode to binary. (cbagwell)

o Updated .dat format description in soxformat. (Jan Stary)

o Doxygen documentation for libSoX. (Doug Cook)

Other bug fixes:

o Fix several memory leaks. [3309913] (Jin-Myung Won and Ulrich Klauer)

o Fixed crashes in apps that call sox\_format\_init/quit() multiple times.

(cbagwell)

Internal improvements:

o Added use\_threads variable to sox\_globals. This should be used to enable

or disable use of parallel effects processing instead of directly calling

omp\_set\_num\_threads. (Doug Cook)

o Fix compiler warnings. (Cristian Morales Vega [P. 3072301], Doug Cook)

o Improve large file support by using 64-bit numbers to count

samples. (Doug Cook, Thor Andreassen, Ulrich Klauer)

sox-14.3.2 2011-02-27

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File formats:

o Add seek support to mp3 handler for speed improvements. (Pavel Karneliuk)

o Fix bug were WavPack header was not updated correctly when closing

file. Fixed libsox memory leak when closing WavPack files.

(David Bryant)

o Fix RIFF chunk length error when writing 24-bit files. (David Bryant)

o 24-bit WAV files were leaving channel maps unassigned. Change to use

common channel mappings based on channel count. This allows to

work more seemlessly with other apps such as WavPack and Foobar2000.

(David Bryant)

o Fix ffmpeg playback bug caused by alignment requirements on some platforms.

Closes bug #3017690. (Reuben Thomas).

o Fix memory leak in ffmpeg. (Doug Cook)

o Handle 0 length chunks in WAV files gracefully. (Beat Jorg)

o When skipping over chunks, account for word alignment. Helps

with some Logic Pro generated files. (D Lambley)

o Fix incorrect MP3 file length determination with VBR & .5s initial

silence. (robs)

Audio device drivers:

o Fix immediate segfault on OSX while attempting to record. (Adam Fritzler)

o Fix segfault on OSX playback for some HW that gives smaller then

requested buffers. (cbagwell)

o Clean up system resource in coreaudio on close. Allows running

back-to-back open()/close()'s without exiting app first. (cbagwell)

o Add support for 32-bit samples to OSS driver. (Eric Lammerts)

o Add support for 24 and 32-bit samples to waveaudio (Win32) driver.

(Doug Cook)

o Support specifying audio device other than default on OSX (cbagwell)

Effects:

o F.R. [3051700] spectrogram -r for `raw' spectrogram, no legend. (robs)

o Fix -w option on stats effect. (Ronald Sprouse)

o Fix segfault with some ladspa plugins (Thor Andreassen)

o Optionally look for png.h in libpng directory to support OpenBSD

packaging. Helps enable spectrograph effect. (cbagwell)

o libpng15 requires application to include zlib.h header file. (cbagwell)

Add this to spectrograph effect. [3184238]

o Enable LADSPA effects on all platforms without any external

dependencies. Mainly useful for Linux, Windows and OS X which have

binaries readily available. (cbagwell)

o Support specifying an absolute end location for trim effect instead

only an offset from trim begin location. (Ulrich Klauer)

o Fix regression where MP3 handler required libmad headers to be installed.

(Samuli Suominen)

o Allow dynamic loading of lame to be enabled even if lame header files

are not installed. (Doug Cook)

Other new features:

o Soxi now reports duration of AMR files. (robs)

o Document the "multiple" combine option in man pages and in

usage output (Ulrich Klauer).

Internal improvements:

o Distribute msvc9 project files that had been in CVS only. (cbagwell)

o Add msvc10 project files (also compatible with the Windows SDK 7.1).

(Doug Cook)

o cmake now compiles waveaudio driver under windows environment. (cbagwell)

[3072672]

sox-14.3.1 2010-04-11

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Newly deprecated features (to be removed in future):

Deprec- Feature [O(ption)] Removal

ated in [F(ormat)] [E(ffect)] Replacement due after

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14.3.1 F mp3: lame 3.97 lame > 3.97 2011-04-11

14.3.1 F sndfile: sndfile 1.0.11 sndfile > 1.0.11 14.3.1

Previously deprecated features (to be removed in future):

Deprec- Feature [O(ption)] Removal

ated in [F(ormat)] [E(ffect)] Replacement due after

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14.2.0 E key alias pitch 14.3.1

14.2.0 E pan ~= mixer/remix 14.3.1

14.3.0 F flac: libFLAC 1.1.2,3 libFLAC > 1.1.3 14.3.1

14.3.0 PLAY\_RATE\_ARG SOX\_OPTS 14.3.1

14.3.0 E norm -b, norm -i gain -B, gain -en 2010-06-14

14.3.0 E filter ~=sinc 2010-06-14

14.1.0 E resample alias rate 2010-06-14

14.1.0 E polyphase alias rate 2010-06-14

14.1.0 E rabbit alias rate 2010-06-14

LibSoX interface changes:

o Added new variants of sox\_open to allow read/write from/to memory

buffers (in POSIX 2008 environment); see example5.c. (robs)

File formats:

o New Grandstream ring-tone (gsrt) format. (robs)

o CVSD encode/decode speed-ups. (Kimberly Rockwell, P. Chaintreuil)

o Add ability to select MP3 compression parameters. (Jim Harkins)

o Now writes out ID3-tags in MP3 files with lame supports it. (Doug Cook)

o Also can write VBR Tag ("XING Header") in MP3 files. (Jim Hark /

Doug Cook)

o Increase percision of MP3 encoders to use 24-bits instead of

16-bits. (Doug Cook)

o Fix failed writing 24-bit PAF files (and possibly other libsndfile

based formats). (cbagwell)

o Allow libsndfile to be dlopen()'ed at runtime if --enable-dl-sndfile

is used. (Doug Cook)

o Allow amr-nb/amr-wb to be dlopen()'ed at runtime if

--enable-dl-amrwb or --enable-dl-amrnb is used. (Doug Cook)

o amrnb and amrwb formats can optionally use opencore-amr libraries.

(cbagwell)

Audio device drivers:

o Add native windows audio driver. (Pavel Karneliuk, Doug Cook)

o Add 32-bit support to ALSA driver. (Pavel Hofman)

o Make OpenBSD sndio audio driver default over older sunau driver.

(cbagwell)

Effects:

o Fix [2254919] silence doesn't trim digital silence correctly. (robs)

o Fix [2859842] stats effect crashes on 64-bit arch. (Ulrich Klauer)

Other new features:

o Added libSoX example #4: concatenating audio files. (robs)

o Show soxi version & usage information when no args given. (robs)

Other bug fixes:

o Fix build so that grouped files (e.g. play -r 6k "\*.vox" plays all

at 6k) works. (robs)

o Fix build to support auto file type detection with pipes on FreeBSD

and elsewhere. (Dan Nelson)

o Fix simultaneous play & rec not working. (robs)

o Fix multi-threading problems on multi-core Windows OS; also, change

default to single-threaded.

o Fix mistaken file size with pipe input on Windows. (Doug Cook)

o Fix missing documentation for -R (repeatable), and pulseaudio driver.

o Fix memory leak of format private data. (Slawomir Testowy)

Internal improvements:

o Move bit-rot detection support files to sub-directory (could

previously cause build problems). (robs)

o [2859244] Fixes to improve compatibility with MSVC. (Doug Cook)

o Added utilities to help any format handler dlopen() external

libraries at run time instead of link time. (Doug Cook)

o Compiling with mingw now has feature parity with cygwin. (Doug Cook

and cbagwell)

sox-14.3.0 2009-06-14

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Previously deprecated features that have been removed in this release:

Deprec- Feature [O(ption)]

ated in [F(ormat)] [E(ffect)] Replacement

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14.1.0 E resample \* ~= rate

14.1.0 E polyphase \* ~= rate

14.1.0 E rabbit \* ~= rate

14.2.0 E dither: RPDF,scaled dither (TPDF only)

14.1.0 F flac: libFLAC 1.1.1 libFLAC > 1.1.1

\* But interface retained as an alias for `rate'.

LibSoX interface changes:

o sox\_format\_init() has been supeseded by sox\_init().

o Removed obsolete error codes (SOX\_E...); new sox\_strerror()

function to convert error codes to text.

o Use of sox\_effect\_options() is now mandatory when initialising an

effect (see example0.c for an example of this).

o sox\_flow\_effects() has a new (3rd) parameter: a void pointer

`client\_data' that is passed as a new (2nd) parameter to the flow

callback function. client\_data may be NULL.

File formats:

o Slight improvement to A-law/u-law conversion accuracy: round LSB

instead of truncating. (robs)

o Fix length in wav header with multi-channel output to pipe. (robs)

o Fix [2028181] w64 float format incompatibility. (Tim Munro)

o Fix reading AIFF files with pad bytes in COMT chunks. (Joe Holt)

o Fix AIFF file length bug to stop reading trash data on files that

have extra chunks at end of file. (Joe Holt)

o Fix file length being 4 bytes short for AIFF sowt CD tracks. (Joe Holt)

o Fix [2404566] segfault when converting from MS ADPCM wav file. (robs)

o Fix slight FLAC seek inaccuracy e.g. when using `trim' effect. (robs)

o Fix mp3 decode sometimes being up to a block short. (robs)

o Fix not outputing GSM-in-wav when input is GSM-in-wav. (robs)

Audio device drivers:

o New native OpenBSD audio handler for play/recording. (Alexandre Ratchov)

o 24-bit support for ALSA handler. (robs)

o Warn if ALSA under/overrun. (robs)

Effects:

o New `stats' effect; multichannel audio statistics. (robs)

o New `sinc' FFT filter effect; replacement for `filter'. (robs)

o New `fir' filter effect using external coefficients/file. (robs)

o New `biquad' filter effect using external coefficients. (robs)

o New `overdrive' effect. (robs)

o New `vad' Voice Activity Detector effect. (robs)

o `synth' enhancements: can now set common parameters for multiple

channels, new `pluck' and `tpdf' types, `scientific' note

notation, [2778142] just intonation. (robs)

o New multi-channel support and revised sizing options for `spectrogram'.

N.B. revised options are not directly backwards compatible -- see the

man page for details of the new syntax. (robs)

o Richer gain/normalise options. (robs)

o [2704442] Slight change to `riaa' gain: now norm'd to 0dB @ 1k

(previously 19.9dB @ DC). (Glenn Davis)

o Fix [2487589] `dither' clipping detection & handling. (robs)

o Fix `repeat' sometimes stopping repeating too soon. (robs)

o Fix `repeat' sometimes repeating wrong audio segments. (robs)

o Fix [2332343] 'silence' segfault with certain lengths. (cbagwell)

o Fix `silence' empty output file with A-law input. (robs)

o Fix temporary file problems in Windows (cygwin) with normalise and

other effects. (robs)

o Fix [2779041] spectrogram PNG file is invalid on Windows. (robs)

o Fix [2787587] `trim x 0' should produce zero length audio. (robs)

o Parallel effects channel processing on some hyper-threading/mult-core

architectures. New `--single-threaded' option to disable this. (robs)

Other new features:

o Added ability to create shared DLL's on cygwin (cbagwell)

o New `--guard' & `--norm' options; use temporary files to guard against

clipping for many, but not currently all, effects. (robs)

o New `--ignore-length' option to ignore length in input file header (for

simple encodings & for mp3); instead, read to end of file. (robs)

o New `--temp DIRECTORY' option. (robs)

o New `--play-rate-arg ARG' option. (robs)

o New SOX\_OPTS environment variable; can be used to provide default

values for above and other options. (robs)

o Grouped files, e.g. play -r 6k "\*.vox" plays all at 6k. (robs)

o Automatically `dither'; new `--no-dither' option to disable this. (robs)

o Can now use `v' & `V' keys to adjust volume whilst playing audio (on some

systems). (robs)

o New bitrate, time in seconds, & total options for soxi; bitrate

and file-size display for sox. (robs)

o `Magic' (libmagic) file type detection now selected using `--magic'

option (where supported).

o [2003121] In many cases, no longer need to specify -t when inputing

audio from a `pipe'. (robs)

o Support more Shoutcast URL variants. (robs)

o Added libSoX example #3: playing audio. (robs)

Other bug fixes:

o Fix [2262177] SoX build could fail with parse /etc/issue error. (robs)

o Fix "no handler for detected file type `application/octet-stream;

charset=binary'" with raw files when using libmagic. (robs)

Internal improvements:

o Rationalise use of and make repeatable across different platforms

pseudo random number generators. (robs)

o Rationalise effects' options interface (getopt compatible). (robs)

o Added stub headers to allow test compilation of all sources on

linux. (robs)

sox-14.2.0 2008-11-09

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Previously deprecated features that have been removed in this release:

Deprec- Feature [O(ption)]

ated in [F(ormat)] [E(ffect)] Replacement

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14.0.0 E pitch new pitch = old key

File formats:

o New `.cvu' unfiltered CVSD; supports any bit-rate. (robs)

o New `.sox' native format intended for intermediate files. (robs)

o Fix WAV write on 64-bit arch. (robs)

o Fix writing PRC ADPCM files. (Silas Brown)

o Fix problems reading short mp3 files. (robs)

Effects:

o N.B. Reduced default bandwidth setting for `rate' effect from 99%

to 95%; use `rate -s' to be compatible with SoX v14.1.0. (robs)

o New options for `rate' effect to configure phase response,

band-width and aliasing. (robs)

o New options for 'dither' effect: RPDF, TPDF, noise-shaping. (robs)

o New `riaa' effect: RIAA vinyl playback EQ. (robs)

o New `loudness' effect: gain control with ISO 226 loudness

compensation. (robs)

o New `bend' effect; pitch bending. (robs)

o New -b option for the norm effect; can be used to fix stereo

imbalance. (robs)

o Wider tempo range for `tempo' effect. (robs)

o New --effects-file option to read effects and arguments from

a file instead of command line. (cbagwell)

o `filter' effect now supports --plot. (robs)

o Improved documentation for the `stat' effect. (robs)

o Fix broken audio pass-through with noiseprof effect. (robs)

o Fix graph legend display when using --plot octave. (robs)

o Fix rare crash with `rate' effect. (robs)

o Fix [2190767] `norm' under-amplifying in some cases. (George Yohng)

o Fix [2007062] Earwax effect can overflow; should clip. (robs)

o Fix [2223251] mcompand should use linkwitz-riley. (robs)

o Fix `phaser' clicks and overflows. (robs)

o Trim will now skip past 2G point correctly. (cbagwell)

o Improved handling of speed changes in the effects chain. (robs)

Other new features:

o New psuedo-effects "newfile" and ":" to allow running

multiple effect chains on a single file. newfile will

create a new output file when an effect chain terminates.

Of most use with trim and silence effects. (cbagwell)

o Can now use multiple pipes as inputs to the combiner;

see `Special Filenames' in sox(1). (robs)

o Display SoX build/run environment information with -V -V. (robs)

o Display (with -V) the detected file-type if it differs from the

file extension. (robs)

o New -t option for soxi; to display the detected file type. (robs)

o New -b/--bits, -e/--encoding alternative options for specifying

audio encoding parameters. (robs)

o [FR 1958680] Support more than 32 input files. (robs)

o New native Mac OSX audio handler for playing/recording. (cbagwell)

Other bug fixes:

o Bump library version because it was not binary compatible with

SoX 14.0.1 (Pascal Giard)

o Turn off versioning of special libsox\_fmt\* libraries since thats

not really needed. (kwizart)

o Fixed crash when running play with no arguments. (Dan Nelson)

o Allow libpng to be found with -static option. (cbagwell)

o Allow libsamplerate to be found if pkg-config is installed but

no samplerate.pc exists. (cbagwell)

o [2038855] external lpc10 lib patch. (Oden Eriksson, Mandriva)

o Fix memory leaks in effects chain when restarting effects. (cbagwell)

o Fixed pkg-config CFLAGS. (evilynux)

o Fix sndfile inclusion in build in some circumstances. (robs)

o Fix [2026912] Fails on URL-like filenames. (robs)

o Always add \_LARGEFILE\_SUPPORT when off\_t is 64bits to work around

buggy platforms. Fixes not able to read WAV files. (cbagwell)

Internal improvements:

o Fixed all compiler warnings (with gcc 4.3.1, 64-bit arch.). (robs)

o Updates to internal effects chain API. (cbagwell)

o Retire old FFT routines (speeds up `noisered' effect). (robs)

o Allow effects to use getopt. (robs)

o Use libmagic for mp3. (robs)

o Change sox\_seek() offset to 64-bit to work with > 2G files (cbagwell)

o Merged libsfx back into libsox to align with sox.h API. (cbagwell)

sox-14.1.0 2008-7-29

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Previously deprecated features that have been removed in this release:

Deprec- Feature [O(ption)]

ated in [F(ormat)] [E(ffect)] Replacement

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13.0.0 O -e -n

13.0.0 O -b/-w/-l/-d -1/-2/-4/-8

13.0.0 E avg, pick mixer

13.0.0 E highp, lowp highpass -1, lowpass -1

13.0.0 E mask dither

13.0.0 E vibro ~= tremolo

13.0.0 F auto Becomes internal only

File formats:

o New option --help-format shows info about supported format(s). (robs)

o New WavPack format (includes lossless audio compression, but not

guaranteed lossless file compression). (robs)

o New htk format. (robs)

o Add .f4 & .f8 raw file extensions. (robs)

o Writing aiff, aifc & dvms now repeatable with -R. (robs)

o Writing hcom no longer fails with unsupported rate--chooses

best match. (robs)

o Au/snd: added support for 32-bit integer and 64-bit float PCM

encoding/decoding; display name of unsupported encoding. (robs)

o Can now write .amb (.wav variant) files [FR 1902232]. (robs)

o Can now read 2,3(2.6),4 bit ADPCM .voc files [FR 1714991]. (robs)

o Can now read some MP3 ID3 tags. (robs)

o Can now write Sounder files. (robs)

o Can now write DEC-variant au files (with -x). (robs)

o Comments support for SoundTool files. (robs)

o Fix [1864216] comments mangled when writing ogg-vorbis. (robs)

o Fix short noise at end of alsa playback. (Morita Sho/Tim Munro/robs)

o Fix wve seek accuracy. (robs)

o Fix lpc10 not working. (robs)

o Fix [1187257] wav MS-ADPCM block-align size incorrect. (robs)

o For wav & au, fix [548256] size in header wrong when piping out. (robs)

o Fix IRCAM SF header processing; support all (modern) variants. (robs)

o Fix 24-bit read/write on big-endian systems. (robs)

o Fix crash trying to open non-existent play-list. (robs)

o Fix FLAC read from stdin with libFLAC >= 8. (Patrick Taylor Ramsey/robs)

o Fix [1997637] Trim effect loses samples (with wav). (robs)

Effects:

o New `splice' effect; splice together audio sections. (robs)

o New `remix' effect; mixes any number of channels. (robs)

o New `norm' (normalise) effect. (robs)

o New `delay' effect; delay one or more channels. (robs)

o New `contrast' enhancement effect [FR 708923]. (robs)

o Improved `rate' resampling effect; resample, polyphase, & rabbit

now deprecated. (robs)

o New `spectrogram' effect; creates a PNG (if built with PNG lib). (robs)

o `synth' can now sweep linearly and squarely (as well as

exponentially). (robs)

o Can now `fade' out to EOF without giving file-length (if it can

be determined from the input file header). (robs)

o Fix synth max. level setting for some output encodings. (robs)

o Fix crash on 64-bit arch. with tempo & key effects. (Sami Liedes)

o `gain' alias for the vol effect. (robs)

Other new features:

o Now possible to control play-back resampling quality (and hence

cpu-load) via the PLAY\_RATE\_ARG environment variable. (robs)

o Command line support for multiple file comments. (robs)

o New --combine=mix-power option to mix combine using 1/sqrt(n) scaling

instead of 1/n [FR 2012856]. (robs)

o New --input-buffer option to specify (only) input buffer size. (robs)

o New `soxi' utility to extract/display file header fields. (robs)

o Pkg-config support. (Pascal Giard)

o Simple VU meter. (robs)

o Heuristic to detect when playing an album and set

the default replay-gain mode to `album'. (robs)

o Better auto-choice of output file format parameters when

type is different to that of input file. (robs)

o SoX now treats (and displays) encoding size & signal precision

separately. (robs)

o Default audio devices (sox), and allow environment variables to

be used to override the default audio device driver (rec/play)

and default audio device (all). (robs)

o Simpler file info display for `play'. (robs)

o For some file-types, warn if file size seems too short. (robs)

o Added auto-detect for caf, sndr, txw & sf files. (robs)

o Added example0: simpler example of how to develop applications that

use the libSoX effects chain. (robs)

o Added example2: simple example of how to develop applications that

use libSoX to read an audio file. (robs)

o Moved contents of soxexam man page into soxeffect man page. (robs)

Other bug fixes:

o Fix [1890983] rec shortcut should apply bit depth (8-bit,

16-bit, etc.) to input handler. (robs)

o Fix ungraceful handling of out of disc space and other write

errors (bug was introduced in 14.0.0). (robs)

o Fix endian selection (-B, -L, -x) in some circumstances. (robs)

o Fix auto-detect of hcom files. (robs)

Internal improvements:

o Use FORTIFY\_SOURCE with gcc. (robs)

o Fixed all compiler warnings (with gcc 4.2.3, 32-bit arch). (robs)

o Reimplement (separately) SoundTool & Sounder format handlers. (robs)

o Allow formats & effects to have any size of private data. (robs)

sox-14.0.1 2008-01-29

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File formats:

o Added support for non-standard, non-WAVE\_FORMAT\_EXTENSIBLE

(esp. 24-bit) PCM wav (see wavpcm in soxformat.7 for details). (robs)

Effects:

o Reimplemented reverb to be similar to freeverb. (robs)

Bug fixes:

o Fix Sndtool read error causing noise at start. (Reynir Stefánsson)

o Fix mixer with >4 numbers, and mixer -3 behaving as mixer -4. (robs)

o Fix [1748909] sox does not report remaining playtime of mp3s. (robs)

o Fix failure to read AIFF files with empty MARK chunk. (robs)

o Fix spurious 'Premature EOF' message in some circumstances. (robs)

o Switched to 16-bit for libao driver since not all its plugins

support it (such as oss, nas, and pulse audio) (Morita Sho)

o Stop crash when "rec" is run with no arguments (Morita Sho).

o Fix -V (without argument) on non-gnu systems. (robs)

o Fix reported (with -V) output audio length in some cases. (robs)

o Fix actual FLAC output file audio length in some cases. (robs)

o Fix poor 24-bit FLAC compression & support newer versions of

libFLAC (1.2.x). (robs)

o Fix loss of 1 decoded FLAC block when using "trim 0 ...". (robs)

o Fix trim when first effect with IMA-ADPCM input wav file. (robs)

Internal improvements:

o Let "make distcheck" run some automated test scripts.

o Distribute missing cmake files.

o Fix ogg vorbis compile error on some platforms.

o Remove unused libltdl that could cause header mismatch with

installed libltdl.

o Fix AMR detection with --disable-shared. (robs)

o Updated configure to support linking to static libraries

on mingw for flac, ogg, and libsamplerate libraries.

o Added example1: simple example of how to develop applications that

use the libSoX effects chain. (robs)

sox-14.0.0 2007-09-11

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File formats:

o Added ffmpeg support. (Reuben Thomas)

o FLAC: added seekable decoding; added seek-table generation. (robs)

o Added M3U & PLS playlist formats [FR# 1667341] (Note: SHOUTcast PLS

is only partially supported). (robs)

o Made format readers and writers into individual modules for easier

distribution of differently-licensed code. (Reuben Thomas)

o Added libao support. (Reuben Thomas)

o Added support for ADPCM-encoded PRC files, based on Danny Smith's

rec2wav and sndcmp. (Reuben Thomas)

o Added AMR-NB [FR# 728875] & AMR-WB formats (with external libs). (robs)

o Added LPC-10 support. (Reuben Thomas)

Effects:

o Use LADSPA effects (one input, one output). (Reuben Thomas)

o --octave option changed to --plot; can now also use gnuplot to

plot effect transfer function. (robs)

o Added soft-knee companding. (robs)

o Show (with --plot) compand transfer function. (robs)

o Allow e.g. "vol 6dB" (as well as "vol 6 dB"). (robs)

o Changed deemph filter from 1st order to 2nd order for

slightly better accuracy. (robs)

o Add option to silence effect to leave periods of silence

in and only strip out extra silence. (Mark Schreiber)

o synth can now generate any number of channels. (robs)

o mixer can now mixdown to mono any number of channels. (robs)

o Added oops effect (mixer special case). (robs)

o All effects that could only work on mono or stereo audio, now

work with any number of channels. (robs)

o Added WSOLA-based key and tempo effects. (robs)

Other new features:

o Show (with -S) if clipping is occurring. (robs)

o Added internet input file support (needs wget). (robs)

o Made it possible to build without sound drivers. (Reuben Thomas)

Bug fixes:

o Fix (m)compand transfer function non-linearities; fix compand

drain volume. (robs)

o Fix crash with pan effect. (robs)

o Add missing RM define to Makefiles so installs work.

(Bug# 1666599) (cbagwell)

o Fix I/O performance regression in 13.0.0. (Reuben Thomas)

o Fix .lu, .la read regression in 13.0.0 [Bug# 1715076]. (robs)

o Fix uncompressed NIST/Sphere read regression in v13 [Bug #1736016].

o Fix displayed times when playing a file and using trim. (robs)

o Fix CDDA sector duration display for non-CDDA sample rates. (robs)

o synth fixes: brown noise; inverted square wave; offset < 0. (robs)

o Fix crash when encoding Vorbis or FLAC: with no comment. (robs)

o Fix effect drain problems: chorus, echo(s), phaser. (robs)

o Fix rabbit responsiveness and memory problems. (Peter Samuelson)

o Fix broken stereo audio when recording using ALSA. (robs)

o Fix OSS driver on big endian machines that was introduced in

last release.

Internal improvements:

o Renamed libst to libsox for name recongition and to avoid

duplications with other existing libst libraries. (Reuben Thomas)

o Moved effects to libsfx. (Reuben Thomas)

o Got rid of several hundred compiler warnings. (robs, Reuben Thomas)

o Added basic performance testing of I/O. (Reuben Thomas)

o Effects chain processing now available in libSoX. (robs)

o Added effects-chain buffering for effects that use a window [FR#

1621695]. (robs)

o Added cmake build files for Win32. (robs)

sox-13.0.0 2007-02-11

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File formats:

o Support for .caf, .paf, .fap, .nist, .w64, .nist, Matlab 4.2/5.0

(Octave 2.0/2.1), .pvf, .sds, .sd2 and .xi file formats via libsndfile.

If available, libsndfile can also be used to handle all the other file

formats it understands. (Reuben Thomas)

o Add FLAC support (robs)

o Support Maxis's XA format. (Dwayne C. Litzenberger)

o Add support for 24-bit PCM raw, wav (WAVE\_FORMAT\_EXTENSIBLE) [FR# 801015],

au, aiff, & flac files. (robs)

o Add AIFF-C output support. (shashimoto)

o New .ima file format for raw IMA ADPCM. (robs)

o Allow the rate and number of channels of .au files to be overridden

by command-line arguments. (robs)

o Add seek support for GSM data in WAV files. Rafal Maszkowski

o Allow encoding quality to be specified (FLAC & Ogg, but not

MP3 yet). (robs)

o Rename -b to -1, -w to -2, -l to -4, -d to -8, and mask to dither.

(robs)

o New options for specifying endianness (and separate options for

nibble & bit reversal) [FR# 1621702]. (robs)

o Improved multi-channel file reading; fixes [1599990]. (robs)

Effects:

o Equalizer effect (Pascal Giard)

o bass and treble altering effects. (robs)

o New optional rabbit resample routine, using libsamplerate

(aka Secret Rabbit Code). (Reuben Thomas)

o Added allpass filter effect. (robs)

o Documented the butterworth filter effects; added variable Q. (robs)

o "rate" effect made an alias for "resample".

o Visualisation of various filters' frequency response via Octave. (robs)

o Can now specify width of many 2nd-order filters as: Hz, octaves,

or Q. (robs)

o Dither/mask amount now specifiable. (robs)

o Consistent (and hopefully complete) clipping detection and

reporting. (robs)

o Allow command-line time parameters of < 1 sec to omit the

leading 0. (robs)

o Improved synth usage and improved the synth entry in the man-

page. (robs)

o Higher quality audio speed adjustment; also fixes [1155364]. (robs)

o Replacement flanger effect; also fixes [1393245]. (robs)

o Added silence padding effect. (robs)

o Added ability for noiseprof to use stdout and noisered to use stdin

[FR# 1621694]. (Reuben Thomas)

o vibro effect name deprecated in favour of tremolo; this effect

reimplemented as a special case of synth. (robs)

Other new features:

o Remove soxmix. (Reuben Thomas)

o Preview mode now removed, as all it did was use rate rather than

resample, and rate has been removed.

o -V now gives only user-relevant messages, use -V -V to get

developer-relevant messages. (robs)

o -V output much improved and expanded; now includes display of

(auto-)selected effects. (robs)

o sox man-page overhaul, new soxexam man-page entries. (robs)

o Added command line options for specifying the output file

comment. (robs)

o Added ability to merge e.g. 2 mono files to 1 stereo file

[FR# 1297076]. (robs)

o Removed the restrictions whereby multiple input files had to have

the same data encoding & size, and in most situations where they

had to have the same # of channels, and for play where they had

to have the same sampling-rate. (robs)

o Options to apply replay-gain on input; enabled by default

with `play'. (robs)

o Can now use Ctrl-C to skip to next track when playing multiple

files (e.g. play \*.mp3); Ctrl-C twice to exit. (robs)

o Added --interactive option to prompt to overwrite pre-existing

output file. (robs)

o Added large file support. (Reuben Thomas)

Bug fixes:

o Fix writing MP3 files on AMD64 processors.

o More fixes to MP3 tag reading. Sometimes tags were

detected as valid MP3 frames.

o Fix to stop, avoiding a crash, when starting of effects fails.

(Reuben Thomas)

o Fixed a bug introduced in 12.18.2 that stopped the draining

of effects from occuring. This had stopped the reverse effect,

among others, from working. (Reuben Thomas)

o Several effects are now optimised out in situations where they need

do nothing, e.g. changing rate from 8000 to 8000, or changing volume

by 0dB [Bug# 1395781]. (robs)

o Fix rounding error when reading command-line time

parameters. (robs)

o Fix nul file hander ignoring other format options if rate

option has not been given. (robs)

o Fix synth length accuracy. (robs)

o Fix broken audio when downmixing with any of the following

effects: synth, deemph, vibro. (robs)

o Fixed deemph & earwax effects to work with MP3, vorbis,

& FLAC. (robs)

o Fix wav file handler discarding the last PCM sample in certain

circumstances. (robs)

o Fix [1627972] AIFF read bug when MARK chunk present. (Richard Fuller)

o Fix [1160154] VOX to WAV conversion problem. (robs)

o Removed (for output file only) the potentially

problematic -v option. Use the vol effect instead. (robs)

o Improved the accuracy of integer and floating point PCM

conversions. (robs)

o Don't go into a loop on zero-padded WAVs. (Jorge Serna)

o Fix to AIFF writing to avoid writing invalid files in some situations.

(Reuben Thomas)

o Fix compander effect bugs: [1613030] Compand fails to compress

clipping, [1181423] compand with 0 sec attack/release. (robs)

Internal improvements:

o More and better self-tests. (robs)

o Build system overhaul to use the full set of GNU autotools.

(Reuben Thomas)

o Add new getopt1.c to win32 project file.

o Remove old, optional rate change and alaw/ulaw conversion code.

(Reuben Thomas)

o Removed the old internally invoked (but mentioned in the man page)

copy effect. (robs)

sox-12.18.2 2006-09-03

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o Adding in Debian's disk full fix (#313206).

o Finally got rid of reference to cleanup() function in

library. Applications are now required to detect

all failures from return codes and cleanup as they

want.

o Changed how list of formats and effects are stored internally.

Effects libst users only. Dirk

o Store effects usage so that its accessable by applications.

Dirk

o Modify the synth effect to not use SIGINT to stop processing

and instead return ST\_EOF. This allows exact acount of

samples to be written out instead of an approximate amount.

o Fix hangup when attempting to write stereo MP3 files.

(1512218) Kendrick Shaw

o Fix deemph effect would lose stereo separation. (1479249) robs

o Adding cross-platform support for getopt\_long

o Make help screens print much more information and add

new --help-effect option. (Originally from Dirk).

o Add support for using an external gsm library instead of

just the internal one. Vladimir Nadvornik

o Updates to nul file handler to prevent crashes during output.

Martin Panter (1482869)

sox-12.18.1 2006-05-07

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o The "filter" effect could go into infinite drain mode. Now

only drain 1 buffer. noisered as well.

o SoX was ignoring user aborts (ctrl-c) if it occured during

effect drain operations. This was bad if effects had

bugs and stuck in infinite loop.

o Stop SoX from crashing when file type could not be auto

determined (1417776).

o Output filenames with multiple '.' confused SoX. (1417776)

Christian Hammer

o Moved to a common set of CLIP routines. This fixed clipping

bugs in noisered and mcompand.

o Stop SoX from crashing on sphere files that contain large text

strings. (1430025) Ulf Hamhammar

o Fix some overflow crashes in aiff handler. (1430024) Ulf Hamhammar.

o Under windows, set piped input/output to binary mode (1417794). Martin

Panter

o Fixed broken internal version of strdup(). (1417790) Marty

o Stop infinite loop when reading MP3's with a tag size of

exactly 8192 bytes. (1417511) Hans Fugal

o Fix typo in stlib.dsp for loading in Visual Studio 6.

o Fixed problems in silence effect related to removing multiple

periods of silence from the middle of the sound file.

o Reduced the window size greatly on the silence effect to

prevent leaving in silence that looked like noise still based

on RMS values.

o Prevent infinite loop in pitch effect from uninitialize variable.

Frank Heckenbach

o Prevent crashes when printing error mesages (1447239)

o Added makefile and support files to compile using Open Watcom

compiler. (1417798) Marty

o Stop calling flow() on effects that returned EOF during drain(). Allows

two back-to-back reverse effects to work.

o Added support for multiple channels in .dat files.

(1366634) tomchristie

sox-12.17.9 2005-12-05

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o Updates to compile under VC6. Jimen Ching

o Declare st\_signalinfo\_t to specifically be signed in case

platform does not default ot signed chars. This

is required for NetBSD/powerpc.

o When seek()ing in AIFF, SMP, and WAV handlers, remaining samples were

incorrectly computed based on bytes and not samples. Jukka

o Changed noisered effect to just warn during clipping instead

of aborting. Ian Turner

o Fixed bug were pieces of audio were lost every buffer read

when running both -c and -r options together on mono audio.

Users probably percieved it as shorter audio files that

played with a sped up tempo.

Bugfix will also apply to other times when multiple effects

are ran on the command line.

o Added support for -V option to play/rec scripts.

o Fix to silence effect to allow negative periods to be specified

(to remove silence from middle of sound file).

o Fix swap option handling so that special case of "swap 1 1" will

work.

o Track length of Ogg Vorbis files on read.

o Add support for displaying a status line that tracks progress

of read/write routines. Part of information requires read

file handlers to be able to determine file length.

o Converted alsa driver to use asoundlib instead of directly

talking to kernel driver. This also means that device names

are now the ALSA logical names instead of /dev type names.

o Added ALSA support to play/rec scripts.

o Added st\_open\*, st\_read, st\_write, st\_seek, st\_close routines

to help simplify developer interface to libst. See libst.3..

o Removed st\_initformat(), st\_copyformat(), and

st\_checkformat() from library. If your app used those

functions then copy them from 12.17.8 source code

directly into your application or update to use new

routines.

o Force word-alignment on AIFF SSND and APPL chunks on input.

Matthew Hodgson.

o Add fix to WAV handler to only return data in multiples

of sample\_size\*channels to better handle corrupt files.

o Fixed bug where "-4" option didn't work with avg

effect (Tom Christie).

o Fixed fade's fade-out-length to match man page

description as noted by Geoff Kuenning. This required

updates to the sample crossfade scripts. Also modified fade

effect to report when no more samples will be produced to

prevent unneeded reading of whole file.

o Allow aborting SoX with SIGTERM, along with previous SIGINT.

Norman Ramsey.

sox-12.17.8 2005-08-22

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o noisered effect had compile problems with some compilers.

o "-x" option was being ignored since 12.17.7.

o Stuart Brady added support for reading and writing RIFX files (big

endian RIFF/WAV files). Also added support for auto detecting

DEC-style ".sd\0" files.

o Gene Mar found typo in polyphase nuttall calculation.

o SMP buffer overflow (detected by gcc 4.0). Reported by Marcus Meissner

and Matthias Saou.

o Fixed URL in manpage to resample overviews.

o Fixed WAV handler so that it didn't think WAV chunks with max size

were invalid chunks. This allows WAV's to be used in pipes since

they have to default to max size.

o WAV files with alaw or ulaw data don't need extended format chunks.

(Lars Immisch)

o In AIFF files, fixed problem were short comments should cause

AIFF handler to get confused and become misaligned.

sox-12.17.7 2004-12-20

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o Christian Weisgerber sent patches to man page fixes

and patches for sunaudio driver on openbsd.

o Default volume for soxmix wrongly set to 0 instead

of 1/#\_input\_files (float rounding error).

o Update to ALSA driver to do a better job of detecting

unsupported sample rate/size/encoding and change to

a supported one.

o Fix bug in alsa writing were last last partial buffer

wasn't being flushed.

o Guentcho Skordev pointed out ogg vorbis files were using

the same value for serial numbers each time.

o Changed sox to only read the exact size of a WAV data chunk

if cooledit IFF LIST chunk is found at the end of the file.

Normally, this isn't done to allow reading > 2gig WAV files.

o Modified configure to detect cygwin compiler after detecting

gcc compiler (fixes some default CFLAGS options).

o Added explicit rule for compile \*.o from \*.c so that

CPPFLAGS is always referenced. Not all platform's default

rule includes CPPFLAGS (FreeBSD).

o Under linux, add include path to /lib/modules/\* so that ALSA

include files can be auto detected.

o Ian Turner added an effect to remove noise from an audio

file by first profiling silent periods of the audio

to determine what the noise is (like background hiss on

cassette tapes).

sox-12.17.6 2004-10-13

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o Changed comment code to always use copies of strings to

fix bug in WAV handlering freeing argv[] memory.

o Use calloc() to create ft\_t structures so that all

memory is initialized before being referenced.

o Fixed VOC EOF bug were it thought there was an extra

block when there wasn't.

o Restructured directory layout so that source code is in

a seperate directory.

o Modified SoX to accept multiple input files. Concatenates

files together in this case.

o Removed map effect so that loops and instr could be removed

from effects structures. This makes effects engine stand

alone from the rest of the sox package.

o Benedikt Zeyen found a bug in synth effect when generating

brown noise that could cause clipping.

o David Leverton sent another patch to prevent crashes on

amd64's when resampling.

o Fixed a bug were MP3 files with large ID3v2 tags could

cause SoX to stick in a loop forever. Now, it will

abort on IDv3 tags larger then 100k. Could still be

improved to handle any size.

o Changed volume option (-v) so that it tracks the file

it was specified. This means that when specified with

the input file, it changes volume before effects engine

and when specified with output file, its done after effects

engine.

o Added crossfade\_cat.sh script that will concatenate to

audio files and do a crossfade between them.

o Fixed bug in fade effect were it was impossible to do a

fadeout starting from the beginning of the audio file.

o Removed rounding error when changing volume of audio with

"-v" option. This error caused doing a "-v -1.0" twice

to not result in the original file.

o Fixed a possible overflow in lots of effects were MIN

value was treated as -MAX instead of -MAX-1.

o Modifed sox so its OK for effects to not process any

input or output bytes as long as they return ST\_EOF.

o When effects output data and reported ST\_EOF at the

same time, that buffer was discarded as well as

data from any chained effect.

o Added patch from Eric Benson that attempts to do a seek()

if the first effect is trim. This greatly speeds up

processing large files.

o Daniel Pouzzner implemented a multi-band compander (using

the butterworth filters to split the audio into bands).

o Donnie Smith updated the silence effect so that its possible

to remove silence from the middle of a sound file by

using a negative value for stop\_periods.

o Changed float routines to only work with normalized values

from -1:1.

o Modifed .au handler to be able to read and write 32-bit

and 64-bit float data. Only tested reading so far.

o WAV with GSM data now always pads data to even number of bytes.

o Added support for writing 32-bit audio to AIFF.

sox-12.17.5 2004-08-15

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o Thomas Klausner sent in patches to compile audio drivers under

NetBSD.

o Rahul Powar pointed out a memory leak in the WAV file handler.

It wasn't calling the correct close() function when closing

input files.

o Modified play.1 man page to not use multiple name lines. This

appears to confuse some conversion programs. Updated sox.1

man page for typo in reverb option.

o Andrew Church fixed problem with header of stereo 8SVX files.

o Jimen Ching added support to scan over garbage data at the

beginning of MP3 files to find valid frames. This is useful

to play WAV and AIFF files that have MP3 data in them until

those handlers support it directly. To play those, force

sox to use the mp3 handler with the "-t mp3" option.

o Added patch from Ulf Harnhammar to wav handler to prevent

buffer overflows.

o Added patch from Redhat to allow resample to work on certain 64-bit

machines (Sam Varshavchik)

o Tony Seebregts added a file handler for headerless Dialogic/OKI ADPCM

files (VOX files).

o Jan Paul Schmidt added a repeat effect to do loops the brute force way.

This is also good for file format that don't support loops as well.

o Fix for OSS driver in rate tolerance calcs that were off because

of type conversion problems. Guenter Geiger.

o Allow reading sphere files with headers greater then 256 bytes. Jimen

Ching.

o Fix for vorbis were comments are displayed in KEY=value format always.

Stop printing some info to stdout in case output is a pipe. Guenter

Geiger.

o J Robert Ray submitted fix for AIFF handler to ignore lowercase

chunks that are unknown.

o Bugfix for 8-bit voc files. Jimen Ching

o General warning cleanups (cbagwell)

o Memory leaks in reading WAV files (Ufuk Kayserilioglu)

o Rearrange link order of ogg vorbis libraries so that they

can be compiled as static. (Christian Weisgerbr)

sox-12.17.4 2003-03-22

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o Peter Nyhlen fixed a problem with reading Comments in Ogg Vorbis files.

o Added install target to allow installing libgsm from main Makefile.

Leigh Smith.

o Minor updates to sox.c to free unused memory and close all input

files during failures.

o Pieter Krul added a patch that makes play script look at AUDIODEV

environment variable if it exists to find which device to use.

This allows scripts to work with Solaris SunRays and is a good idea

in general.

o Updated config.sub to detect latest supported OS's.

o Fabrizio Gennari added support for reading and writing

MP3 files using the external libraries libmad and libmp3lame.

o Jens Henrik Goebbert sent in several bugfixes for integer overflows

in the compand effect.

o Dan Dickerman sent in patches for integer overflows in the resample

effect.

o Jimen Ching sent in a fix for multi-channel sound file processing

using the avg effect.

o Richards Bannister added patches to clean up prototypes and filter

private sizes being to small.

o Jimen Ching adds -d option to specify 64bit data size and changed

Ulaw/Alaw encoding to default to 8bit data size if not specified.

o David Singer pointed out that a MS program creates AIFF files

with an invalid length of 0 in its header. Changed SoX to warn the

user but continue instead of aborting since SoX can still read

the file just fine.

o Bert van Leeuwen added a file handler for Psion record.app used

for System/Alarms in some Psion devices.

o Richard Bannister sent in a patch to make writing vorbis files

work with Vorbis 1.0 libraries.

o Fixed configure scripts so that they can be ran with the

--with-oss-dsp, --with-alsa, and --with-sun-audio options.

Was causing compile time problems. Reported by Raul Coronado.

o Change Ogg Vorbis support to use VBR encoding to match defaults

of oggenc based on suggestion from Christian Weisgerber.

o Prints error message now when a channel value of -1 is given.

Reported by Pierre Fortin.

o Fixed bug were memory could be trashed if a input WAV file contained

a comment. Found by Rhys Chard.

o Change command line to compile soxmix.o slightly to try and make

Forte compiler happy.

o Added support for ALSA 0.9 driver. Jimen Ching

sox-12.17.3 2001-12-15

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o Removed check that prevented pan from being invoked when the

input and output channels were the same.

o Ciaran Anscomb added a flush to sunaudio driver after changing

settings. This is because it can start buffering data as soon

as the device is open and the buffered data can be in a

wrong format.

o trim wasn't accounting for # of channels and was generally broken.

o Jeff Bonggren fixed trim bugs were it was failing when triming

data that equaled to BUFSIZ. Also, trim now immediately returns

ST\_EOF when its done instead of requiring an extra call that

returns no data.

o auto effect wasn't rewinding the file if the file was less then

132 bytes. Changed auto parsing of header to be incremental

instead of reading in a large buffer.

o William Plant pointed out a bad pointer access in fade effect's

parsing of options.

o Ken pointed out a problem were private data was not 8-byte aligned

and causing crashes on most RISC CPU's. Fixed by going back to

old style of declaring private data as type "double" which usually

forces strictest alignment.

o ima\_rw was miscompiling on alpha's because of a header ordering

problem.

o Erik de Castro Lopo pointed out that when writing 16-bit VOC files

the headers did not contain the correct length or encoding type.

o Seperated st.h into 2 files. st.h for libst users and st\_i.h for

internal use.

o Added new types used extensively by libst: st\_sample\_t & st\_size\_t.

This allows for more deterministic behavior on 64-bit machines and

also allows sox to possibly work with much larger file sizes.

o SoX was some times getting confused and thinking an EOF was an

error case when reading audio files. Removed unneeded aborts

when EOF was OK.

o Silence effect was broken on stereo files. Also, made thresholds

relative to original bit percision of audio data. When 16-bit audio

is scaled up to 32-bits, a little bit of noise starts to look like a

large amplitude of noise. Also, now using RMS values to smooth out

clicks. RMS rolling window size is 1/10 of sample rate.

o Changed Floats into a type of encoding instead of a size of audio data.

o Put a flush at the end of OSS driver so that no old data would be

left in internal buffers after changing audio format parameters.

o Fixed problem where play script wasn't installed correctly if you

build from another directory (pointed out by Mike Castle).

o Made GSM support internal to libst (no external library required).

o Change configure script to enable ulaw/alaw lookup tables and GSM

support by default. Also have Makefile's make use of more configure

prefix options to allow for customized installs.

o Reverted ulaw/alaw conversion routines back to Sun's versions.

o Modified raw file handler to write files in the same generic buffered

fashion that was added for reading in 12.17.2. Seems to have

speed up some types of writing.

o Reading Ogg Vorbis files could get confused of when EOF was reached.

o Added uninstall rules to Makefile. Added new ststdint.h to define

\*int\*\_t typedefs.

o Added internal strcasecmp for OS/2.

o Added support for swapping "bit" order (MSB becomes LSB) for raw u-law

and A-law data. Some ISDN equipment prefers it this way. Use -x flag

or new .la or .lu file extensions.

o Annonymous patch submitted to fix types and spelling problems in

various files. Also, updated VOC files to have u-law and A-law

support as well as able to read in VOC files using a pipe. More

examples added to soxexam file.

sox-12.17.2 2001-09-15

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o Daniel Culbert found and fixed a bug in the polyphase effect

that occurs on platforms that rand() can return large values.

The bug resulted in polyphase resampling an audio file to a

different rate then it said it was.

o Stan Seibert contributed a handler for Ogg Vorbis files. It

handles all input formats but can only save using default

settings.

o Darrick Servis has made major cleanups in the code in regards

to error conditions. Helps people using libst.

o Darrick Servis has added added optional seek functionality sox.

Several formats have been modified to make use of this.

o Geoff Kuenning rewrote the average effect into a general-purpose

parametric mapping from N channels to M channels.

o Geoff Kuenning added an optional delay-time parameter to the compander

effect to allow companding to effectively operate based on future

knowledge.

o Geoff Kuenning Added support to fade and trim effect for specifying time

in hh:mm:ss.frac format.

Fixed a bug that caused integer overflow when large start/stop times

were used.

o Geoff Kuenning updated play/rec/soxeffect scripts to handle all effects

added since 12.17. Spell-checked soxexam.1 file.

o Jimen Ching updated ALSA configure support to auto-detect 4.x or 5.x API

and compile correctly under those two. All other versions are unsupported.

o Merged in the NetBSD package changes into CVS finally.

o Removed broken support for non-ANSI compilers.

o Makefile now places the correct path to SoX in the play/rec scripts

based on configuration script values.

o Alexander Pevzner provided a fix for OSS driver for sound being

dropped under heavy CPU loads. Moved GETBLKSIZE operation

until after setting up the format (SBLive! was modify the block size

after changing formats).

o With help from David Blythe, updated OSS drivers to use newer format

interface. OSS driver will now attempt to detect a valid endian type

to use with sound card.

o Carsten Borchardt pointed out a bug in lowp filter. Added new

nul file handler that reads and writes from/to nothing.

Also added new synth effect that creates sounds using a simple

synthesizer. Created a testcd.sh that uses two new features

to create a test sound CD for testing audio equipment.

o Ben Last added a new program that uses libst and will merge two

seperate audio files into a single file with multiple channels.

This was merged into the standard sox.c file by cbagwell.

o Andreas Menke fixed some problems with the speed effect and

how effects were drained. Also improved the usage of printf()'s

to use stderr.

o Corrected AU header length value when comments were less than

4 bytes.

o Added support for reading non-standard bit size data from AIFF files.

o Ignore unmatched MARK/INSTR chunks in AIFF files now instead of quiting.

o Fixed ALAW encoding bug in .au files as pointed out by Bruce Forsberg.

o Unified the raw reading functions. Probably slightly faster for

most datatypes but was done to fix recording from the OSS driver.

Control-C stopped working somewhere during the 12.17 series.

o Ford Prefect added a dcshift which can shift the midline amplitude

towards the true center. This will allow for a greater range

of volume adjustments without clipping audio data.

o Heikki Leinonen submitted a silence effect that will trim off

silence from the beginning of a file. cbagwell made some modifications

to trim off front and back as well as some other tweaks.

o Made the "auto" effect the default file handler for input files.

Also have auto handler now use file extensions if it can't figure

it out.

sox-12.17.1 2000-11-19

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o Andreas Kies fixed a bug were we were not detecting correctly

if an output file was seekable.

o Fixed a bug in the mask effect introduced in 12.17. If the libc

version of rand() returned more then 15-bit values then it would

trash your data. Reported by Friedhel Mehnert.

o Added a new fade in/out effect from Ari Moisio.

o AIFF files now ignore a MARK chunk if the loop type is NoLoop (0).

o Fixed bug were it was impossible to output ADPCM data in wav files.

o Fixed bug were rate had to be specified for sphere files (fix from

Antti Honkela).

o Added small work around to let compile with cygwin's gcc 95.2

which also now allows to compile with GSM support under windows.

o Removed accessing of sound devices in tests for sound support and

instead just look for needed header files. This allows the sound

support to be detected even if the device is currently busy or when

compiled on a box that doesn't have a sound card but the OS supports

it (which is the enviornment of most distributions creating new

binaries).

o Added support to partially handle AIFC files but only uncompressed

versions. This should allow people to work with raw CD audio data

on Mac OSX and also gives a basis for adding future support for

things like ADPCM processing.

o Added new "earwax" effect from Edward Beingessner. It is meant to

be used for CD audio played through headphones. It will move the

sound stage from left/right to in front of you.

o Trim effect did not compute locations as was documented in the

man pages. Changed effect so that it computed the time the

same way that the fade effect does.

sox-12.17 2000-09-08

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o Sox can now read and write w98 compatible gsm .wav files,

if compiled properly with libgsm. Thanks go to Stuart

Daines <sjd.u-net.com> for the gsm-wav patches.

This is new, and relatively untested. See -g format option.

o Sox can now write IMA\_ADPCM and ADPCM compressed .wav,

this is new, and relatively untested. See -i and -a format

options in manpage.

o General changes to wav.c for writing additional wav formats.

Reading wave headers: more consistency checks.

Writing wave headers: fixes for w98.

o Speedups to adpcm read routines, new codex versions are

now in ima\_rw.c and adpcm.c.

o Speedups for raw.c, especially for gcc with glibc.

o Fixed a segfault problem with ulaw/alaw conversion, where

an out-of-range index into the tables could occur.

o More detailed output from the stat effect.

o Continued rewrite of resample.c, now it is almost as

fast with floating arithmetic as the old (buggy) version

was with 16-bit integer arithmetic. The older version

in sox-12.16 shifted frequencies slightly and was less

accurate. (Stan Brooks)

o Extensive rewrite of polyphas.c, should be faster and use less memory

now. The sox-12.16 polyphase code had some bugs. (Stan Brooks)

o New effect 'filter' which is a high-quality DSP lowpass/

highpass/bandpass filter using windowed sinc function

methods, like polyphase and resample. (Stan Brooks)

o Jan Paul Schmidt added new low/high/bandpass and bandlimit

filters to sox. They have much better results then the old

versions of low/high/bandpass. The new effects are all

Butterworth filters.

o New data file type supported, -sl or extension .sl for

signed 32-bit integers. Some simplification of the raw.c

source.

o Some test programs and scripts in the test directory, for

making gnuplot plots of frequency response, error-levels

of rate-conversion and filter effects.

o Removed sbdsp code. All modern unixes are support via OSS,

ALSA, or sun audio device interfaces.

o Added AVR handler from Jan Paul Schmidt.

o SoX now waits until the last possible moment before opening

the output file. This will allow all input and effect options

to be parsed for errors and abort before overwriting any file.

o SoX will no longer write to files that exists. This will keep

it from deleting files when a user mistakenly types "sox \*.wav".

o Added new compander effect from Nick Bailey. Nice general purpose

filter.

o Under Solaris, SoX now checks hardware ability to play stereo/PCM

and forces output data to match. Sorry, no SunOS support. I don't

have access to one any more.

o Fixed array overrun bug in rate effect as pointed out by Ian

Donaldson.

o Fixed clip24() range as pointed out by Ted Powell.

o Fixed possible segfault in echos effect, as pointed out by Zinx

Verituse.

o Moved most documentation to new "soxexam.1" manual page so that

all users on a unix system will have access to important information.

This means no more TIPS, CHEATS, or CHEATS.eft files.

o Richard Kent fixed a byte alignment problem in aiff comment code.

o Loring Holden added support to create missing directories on install

and support for installs from outside the source directory.

o Fabien COELHO added a pan and volume effect.

o Fabien COELHO added a speed effect to sox (like speeding up a tape

machine). Also added pitch which changes pitch without effecting

duration and stretch which stretch time without effecting pitch.

o Leigh Smith updated aiff support to use the COMT check when writing

comments instead of the ANNO. It is the prefered method from Apple

and newer programs are starting to require it. Also fixed some bugs

in how we compute the length of various chunks in output files.

o Changed the default block alignement for IMA ADPCM WAV files to use

256 which is what windows programs use. Badly written readers expect

256.

o Matthias Nutt helped add support for specifying multiple effects

to SoX on the command line.

o Curt Zirzow added a trim effect to trim off audio data.

o Updated ALSA driver to support new interface. Jimen Ching

sox-12.16 1999-07-13

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o Changed raw data functions to perform I/O operations using block reads.

Should improve speeds greatly, especially when filesize is in megs.

Got code ready to tweak speed more which also forced me to clean up

Endian test code.

o Fixed a bug in .au's handling of G.723. It wasn't using the correct

number of bits. Added A-law support to .au.

o Quoted $filename in play/rec scripts so that files with spaces in

their names can be given.

o Old OS/2 support didn't work. Replaced with known working EMX

GCC compatible code.

o ADPCM WAV files were defaulting to 8-bit outputs and thus losing

some persision. Now defaults to 16-bit signed uncompressed data.

o Fixed a couple cross-platform compiler issues.

o Jimen Ching has added support for "configure" in to SOX. Finally,

a good solution to cross-platform compiling!

o Jimen Ching has added native support for the ALSA driver to play

and record audio from. (jching@flex.com)

o Minor correction for -r example in manual page.

o Renamed sox.sh to soxeffect and rewrote. Symbolic links can be made

from this file to the name of a sox effect. It will then run that

effect on STDIN and output the results to STDOUT.

o Fixed up some makefiles and 16-bit support from patches sent by

Mark Morgan Lloyd (markMLl.in@telemetry.co.uk). Also added some

nice DOS test bat files from him as well.

o Cleaned up some more cross-platform compile problems. In the process

got it working with Turbo C again, kinda. It still locks DOS up at times.

o Made AIFF handler work with invalid headers that some programs generate.

Also fix an Endian bug thats been there for quite a long time (when

ran on Intel machines). Made comment lengths even length to make

most MacOS programs happy. cbagwell

o Resample function was updated by Andreas Wilde

(andreas@eakaw2.et.tu-dresden.de) to fix problem were freqs. were

off by a factor of 2.

o Added an effect that swaps stereo channels. cbagwell

o Combined play and rec scripts to a single program to ease mantaince.

Also added GNU style long-options (--help). Careful, some options have

change (but more logical).

o Fixed a very old silly bug were low/high/bandpass filters would

add some trash data to the end of the sound file.

o "avg" effect wouldn't give error message when you tried to average

x number of channels in to the same number of channels.

o Fixed core dump when writting AIFF files with no comments.

(Olaf Pueschel)

sox-12.15 1998-10-01

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o Juergen Mueller moved Sox forward quite a bit by adding all the

most commonly known "Guitar Effects". He enhanced echo support,

added chorus, flanger, and reverb effects. He also wrote a very

handy CHEAT.eft file for using various effects.

o Incorporated Yamaha TX-16W sampler file support provided by

Rob Talley (rob@aii.com) and Mark Lakata (lakata@physics.berkeley.edu).

o Fixed a small bug in hcom compression, dependent on sign

extension. Leigh Smith (leigh@psychokiller.dialix.oz.au).

o sox -h now prints out the file formats and effects supported.

Leigh Smith and Chris Bagwell.

o smp transfers comments more completely. Leigh Smith.

o aiff manages markers and loops correctly and produces more

verbose output. Leigh Smith.

o Added polyphase resampler (kb@ece.cmu.edu). This adds a slightly

different resampling algorithm to the mix.

o Michael Brown (mjb@pootle.demon.co.uk) sent a patch to stop crashes

from happening when reading mono MS ADPCM files.

o Fabrice Bellard has added a less buggy 'rate' conversion. I've left

the old rate code included but if all goes well this will become

the new 'rate'. Please test and let me know how it works. Resample

effect needs to be reworked now.

o Heiko Eissfeldt: Implemented a simple deemphasis effect for

certain audio cd samples.

o Matija Nalis (mnalis@public.srce.hr) sent a patch to fix volume adjustment

(-v) option of sox.

o Fixed typo in optimazation flag in unix makefile, as pointed out by

Manoj Kasichainula (manojk@io.com).

o Fixed missing ';;' in play script. cbagwell

o Fixed bug in determining length of IMA and MS ADPCM WAVE files. cbagwell

o Fixed bug in how stereo effects were drained which fixed the

"reverse" effect from only saving half of stereo files. cbagwell

o Can use "-e" without an effect again.

o Added -g and -a options for new style support of GSM and ADPCM. Added

error checking to various formats to avoid allowing these types.

sox-12.14 1998-05-15

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o Bumped major version number up and shortened name. The shorter name

should help the various distributions using this package.

o Added support for MS ADPCM and IMA (or DVI) ADPCM for .wav files.

Thanks to Mark Podlipec's xanim for this code (podlipec@ici.net).

o Change Lance Norskog's email address to thinman@meer.net. The old

one was bouncing.

o Added path string to play and rec strings so that it could be run by

users without complete paths setup (i.e. Ran by "rc" files during bootup

or shutdown)

o Fixed -e option from Richard Guenther

(richard.guenther@student.uni-tuebingen.de) and fixed a small bug

in stat.

o Fixed a bug in the mask effect for ULAW/ALAW files.

o Fixed a bug in cdr output files that appended trash to end of file.

o Guenter Geiger (geiger@iem.mhsg.ac.at) made a rather large patch to

allow sox to work on 64-bit alphas. It was done the easiest meathod

by changing all long declarations to use a macro that knows to

make it 32-bits. Want to port to another 64-bit-but-not-alpha

machine? Grep for "alpha" to see changes. There are most likely

several bugs left for alphas. Guenter is also supporting this

package for the Debian distribution.

o Did some major code cleanups to clear out some warning messages

during compile. This is to clear up problems I'm finding under

both alpha and dos. Some warning messages are actually useful

now (pointing out possible data loss). Hopefully, I didn't

break anything.

o Code clean up allows me to finally compile code under Turbo C

again. Too bad the EXE gets a currupted stack somewhere and locks

up the system. Anyone want to try it with Borland C for me?

If you get a working EXE I would like to start distributing a DOS

package like there used to be.

o Speaking of cleanups, anyone want to help cleanup the makefiles for

various platforms? They are quite outdated right now and it is

very obvious that Sox hasn't been able to compile under all the

platforms it once did for several releases. Please send in

the cleaned-up makefile versions along with what programs you

used to compile it with.

o There is a known bug in hcom's compress() function. It is allocating

memory that can't be free'd under some OS's. It causes a core dump.

sox-11gamma-cb3 1997-03-28

---------------

This release of sox is mainly a bugfix release. The following things

have changed:

o Documentation has been updated when it was obviously wrong.

Much more work could be done. Man pages were updated to

work correctly on Solaris and add some missing info.

o Several people sent me patches to fix compiling on Solaris

as well as fix a few bugs.

o Change USS driver's name to OSS. Man, does that driver

like to change names! This could cause problems if you

have made your own custom play and rec scripts.

o Updated my email address. Sorry if I haven't responded to

any emails as I no longer have access to my old address.

Please use cbagwell@sprynet.com.

o Fixed unix test scripts so that they worked again.

o Fixed endian bug in psion .wve code.

o Replaced outdated voc info file with detailed format info

inside voc code.

o Added new sound format, cvsd (Continuously Variable Slope Delta)

from Thomas Sailer (sailer@ife.ee.ethz.ch).

sox-11gamma-cb2 1996-10-04

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This release of sox is based on the latest gamma version released

plus some patches I've made to support the following new features:

I would like to thank everyone that wrote me about the long

standing bug in Sox that could DELETE your /dev/\* file if the

program was aborted for reason such as invalid audio file. Special

thanks for Bryan Franklin for sending in a patch when I was

to busy to even look for it.

o Better play support for 8-bit stereo voc files. New support

for outputing both 8-bit and 16-bit stereo voc files.

o Built-in support for playing and recording from Linux /dev/dsp.

This is a re-write and seperate module from the previous

support included inside the sbdsp module. Also fixes a buffer

size bug that showed up when using newer versions of OSS.

This driver will work with OSS (and older versions called USS, TASD

and Voxware).

o Support for audio playing and recording with SunOS /dev/audio.

o Fixes a bug were /dev/audio or /dev/dsp could be deleted

when playing an invalid format audio file.

o Expanded options for play and rec scripts. You can now specify

sox effects after the filename and hear them in real time.

Please be sure that an older version of sox is not in your path

because these script will possibly find it first and

incorrectly use it.

o Setting play/record volume still requires an external program.

If you have one a command line program to do this (such as

"mixer" for Linux) then you will want to edit the play and rec

to use this. The current support for it is only in example

form of how it can be done.

List of earlier SoX Contributors

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Covering the time from its creation (Jul '91) until sox-11gamma (Feb '95):

o Lance Norskog thinman at netcom.com

Creator & maintenance

o Guido Van Rossum guido at cwi.nl

AU, AIFF, AUTO, HCOM, reverse, many bug fixes

o Jef Poskanzer jef at well.sf.ca.us

original code for u-law and delay line

o Bill Neisius bill%solaria at hac2arpa.hac.com

DOS port, 8SVX, Sounder, Soundtool formats

Apollo fixes, stat with auto-picker

o Rick Richardson rick at digibd.com

WAV and SB driver handlers, fixes

o David Champion dgc3 at midway.uchicago.edu

Amiga port

o Pace Willisson pace at blitz.com

Fixes for ESIX

o Leigh Smith leigh at psychok.dialix.oz.au

SMP and comment movement support.

o David Sanderson dws at ssec.wisc.edu

AIX3.1 fixes

o Glenn Lewis glewis at pcocd2.intel.com

AIFF chunking fixes

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QNX port and 16-bit fixes

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DOS port fixes

o John Kohl jtkohl at kolvir.elcr.ca.us

BSD386 port, VOC stereo support

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VMS port, VOC stereo support

o Frank Gadegast phade at cs.tu-berlin.de

Microsoft C 7.0 & C Borland 3.0 ports

o David Elliot dce at scmc.sony.com

CD-R format support

o David Sears dns at essnj3.essnjay.com

Linux support

o Tom Littlejohn tlit at seq1.loc.gov

Raw textual data

o Boisy G. Pitre boisy at microware.com

OS9 port

o Sun Microsystems, Guido Van Rossum

CCITT G.711, G.721, G.723 implementation

o Graeme Gill graeme at labtam.labtam.oz.au

A-LAW format, Good .WAV handling, avg channel expansion

o Allen Grider grider at hfsi.hfsi.com

VOC stereo mode, WAV file handling

o Michel Fingerhut Michel.Fingerhut at ircam.fr

Upgrade 'sf' format to current IRCAM format. Float file support.

o Chris Knight

Achimedes Acorn support

o Richard Caley R.Caley at ed.ac.uk

Psion WVE handler

o Lutz Vieweg lkv at mania.RoBIN.de

MAUD (Amiga) file handler

o Tim Gardner timg at tpi.com

Windows NT port for V7

o Jimen Ching jiching at wiliki.eng.hawaii.edu

Libst porting bugs

o Lauren Weinstein lauren at vortex.com

DOS porting, scripts, professional use