```
**********************************************************
    9830 Sat Feb  8 10:54:35 2020
new/usr/src/man/man1/audioconvert.1
12287 errors in audio utility man pages
**********************************************************
'\" te
.\" Copyright (c) 2001, Sun Microsystems, Inc. All Rights Reserved
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.\" When distributing Covered Code, include this CDDL HEADER in each file and in
.TH AUDIOCONVERT 1 "Feb 8, 2020"
.TH AUDIOCONVERT 1 "Feb 16, 2001"
.SH NAME
audioconvert \- convert audio file formats
.SH SYNOPSIS
.LP
.nf
\fBaudioconvert\fR [\fB-pF\fR] [\fB-f\fR \fIoutfmt\fR] [\fB-o\fR \fIoutfile\fR]
     [ [\fB-i\fR \fIinfmt\fR] [\fIfile\fR]...] ...
.fi

.SH DESCRIPTION
.sp
.LP
\fBaudioconvert\fR converts audio data between a set of supported audio
encodings and file formats. It can be used to compress and decompress audio
data, to add audio file headers to raw audio data files, and to convert between
standard data encodings, such as u-law and linear PCM.
standard data encodings, such as -law and linear PCM.
.sp
.LP
If no filenames are present, \fBaudioconvert\fR reads the data from the
standard input stream and writes an audio file to the standard output.
Otherwise, input files are processed in order, concatenated, and written to the
output file.
.sp
.LP
Input files are expected to contain audio file headers that identify the audio
data format.  If the audio data does not contain a recognizable header, the
format must be specified with the \fB-i\fR option, using the \fBrate\fR,
\fBencoding\fR, and \fBchannels\fR keywords to identify the input data format.
.sp
.LP
The output file format is derived by updating the format of the first input
file with the format options in the \fB-f\fR specification. If \fB-p\fR is not
specified, all subsequent input files are converted to this resulting format
and concatenated together. The output file will contain an audio file header,
unless \fBformat\fR=\fIraw\fR is specified in the output format options.
.sp
.LP
Input files may be converted in place by using the \fB-p\fR option. When
\fB-p\fR is in effect, the format of each input file is modified according to
the \fB-f\fR option to determine the output format. The existing files are then
overwritten with the converted data.
.sp
.LP
The \fBfile\fR(1) command decodes and prints the audio data format of Sun audio
files.
.SH OPTIONS
.sp
.LP
The following options are supported:
.sp
.ne 2
.na
\fB\fB-p\fR\fR
```



```
.ad
.RS 14n
\fIIn Place\fR: The input files are individually converted to the format
specified by the \fB-f\fR option and rewritten. If a target file is a symbolic
link, the underlying file will be rewritten. The \fB-o\fR option may not be
specified with \fB-p\fR.
.RE

.sp
.ne 2
.na
\fB\fB-F\fR\fR
.ad
.RS 14n
\fIForce\fR: This option forces \fBaudioconvert\fR to ignore any file header
for input files whose format is specified by the \fB-i\fR option. If \fB-F\fR
is not specified, \fBaudioconvert\fR ignores the \fB-i\fR option for input
files that contain valid audio file headers.
.RE

.sp
.ne 2
.na
\fB\fB-f\fR \fIoutfmt\fR\fR
.ad
.RS 14n
\fIOutput Format\fR: This option is used to specify the file format and data
encoding of the output file. Defaults for unspecified fields are derived from
the input file format. Valid keywords and values are listed in the next
section.
.RE

.sp
.ne 2
.na
\fB\fB-o\fR \fIoutfile\fR\fR
.ad
.RS 14n
\fIOutput File\fR: All input files are concatenated, converted to the output
format, and written to the named output file. If \fB-o\fR and \fB-p\fR are not
specified, the concatenated output is written to the standard output. The
\fB-p\fR option may not be specified with \fB-o\fR.
.RE

.sp
.ne 2
.na
\fB\fB-i\fR \fIinfmt\fR\fR
.ad
.RS 14n
\fIInput Format\fR: This option is used to specify the data encoding of raw
input files. Ordinarily, the input data format is derived from the audio file
header. This option is required when converting audio data that is not preceded
by a valid audio file header. If \fB-i\fR is specified for an input file that
contains an audio file header, the input format string will be ignored, unless
\fB-F\fR is present. The format specification syntax is the same as the
\fB-f\fR output file format.
.sp
Multiple input formats may be specified. An input format describes all input
files following that specification, until a new input format is specified.
.RE

.sp
.ne 2
.na
\fB\fIfile\fR\fR
```

```
.ad
.RS 14n
\fIFile Specification\fR: The named audio files are concatenated, converted to
the output format, and written out. If no file name is present, or if the
special file name ‘\(mi’ is specified, audio data is read from the standard
input.
.RE

.sp
.ne 2
.na
\fB\fB-?\fR\fR
.ad
.RS 14n
\fIHelp\fR: Prints a command line usage message.
.RE

.SS "Format Specification"
.sp
.LP
The syntax for the input and output format specification is:
.sp
.LP
\fIkeyword\fR=\fIvalue\fR[,\fIkeyword\fR=\fIvalue\fR \|.\|.\|.\|]
.sp
.LP
with no intervening whitespace. Unambiguous values may be used without the
preceding \fIkeyword\fR=.
.sp
.ne 2
.na
\fB\fBrate\fR\fR
.ad
.RS 12n
The audio sampling rate is specified in samples per second. If a number is
followed by the letter \fBk\fR, it is multiplied by 1000 (for example, 44.1k =
44100). Standard of the commonly used sample rates are: 8k, 16k, 32k, 44.1k,
and 48k.
.RE

.sp
.ne 2
.na
\fB\fBchannels\fR\fR
.ad
.RS 12n
The number of interleaved channels is specified as an integer. The words
\fBmono\fR and \fBstereo\fR may also be used to specify one and two channel
data, respectively.
.RE

.sp
.ne 2
.na
\fB\fBencoding\fR\fR
.ad
.RS 12n
This option specifies the digital audio data representation. Encodings
determine precision implicitly (\fBulaw\fR implies 8-bit precision) or
explicitly as part of the name (for example, \fBlinear16\fR). Valid encoding
values are:
.sp
.ne 2
.na
\fB\fBulaw\fR\fR
.ad
```



```
.RS 13n
\fBCCITT G.711\fR u-law encoding. This is an 8-bit format primarily used for
\fICCITT G.711\fR -law encoding. This is an 8-bit format primarily used for
telephone quality speech.
.RE

.sp
.ne 2
.na
\fB\fBalaw\fR\fR
.ad
.RS 13n
\fBCCITT G.711\fR A-law encoding. This is an 8-bit format primarily used for
telephone quality speech in Europe.
.RE

.sp
.ne 2
.na
\fB\fBlinear8\fR,\fR
.ad
.br
.na
\fB\fBlinear16\fR,\fR
.ad
.br
.na
\fB\fBlinear32\fR\fR
.ad
.RS 13n
Linear Pulse Code Modulation (PCM) encoding. The name identifies the number of
bits of precision. \fBlinear16\fR is typically used for high quality audio
data.
.RE

.sp
.ne 2
.na
\fB\fBpcm\fR\fR
.ad
.RS 13n
Same as \fBlinear16\fR.
.RE

.sp
.ne 2
.na
\fB\fBg721\fR\fR
.ad
.RS 13n
\fBCCITT G.721\fR compression format. This encoding uses Adaptive Delta Pulse
Code Modulation (ADPCM) with 4-bit precision. It is primarily used for
compressing u-law voice data (achieving a 2:1 compression ratio).
compressing -law voice data (achieving a 2:1 compression ratio).
.RE

.sp
.ne 2
.na
\fB\fBg723\fR\fR
.ad
.RS 13n
\fBCCITT G.723\fR compression format. This encoding uses Adaptive Delta Pulse
Code Modulation (ADPCM) with 3-bit precision. It is primarily used for
compressing u-law voice data (achieving an 8:3 compression ratio). The audio
compressing -law voice data (achieving an 8:3 compression ratio). The audio
```

```
248 quality is similar to \fBG.721,\fR but may result in lower quality when used
249 for non-speech data.
250 .RE

252 The following encoding values are also accepted as shorthand to set the sample
253 rate, channels, and encoding:
254 .sp
255 .ne 2
256 .na
257 \fB\fBvoice\fR\fR
258 .ad
259 .RS 9n
260 Equivalent to \fBencoding=ulaw,rate=8k,channels=mono\fR.
261 .RE

263 .sp
264 .ne 2
265 .na
266 \fB\fBcd\fR\fR
267 .ad
268 .RS 9n
269 Equivalent to \fBencoding=linear16,rate=44.1k,channels=stereo\fR.
270 .RE

272 .sp
273 .ne 2
274 .na
275 \fB\fBdat\fR\fR
276 .ad
277 .RS 9n
278 Equivalent to \fBencoding=linear16,rate=48k,channels=stereo\fR.
279 .RE

281 .RE

283 .sp
284 .ne 2
285 .na
286 \fB\fBformat\fR\fR
287 .ad
288 .RS 12n
289 This option specifies the audio file format. Valid formats are:
290 .sp
291 .ne 2
292 .na
293 \fB\fBsun\fR\fR
294 .ad
295 .RS 7n
296 Sun compatible file format (the default).
297 .RE

299 .sp
300 .ne 2
301 .na
302 \fB\fBraw\fR\fR
303 .ad
304 .RS 7n
305 Use this format when reading or writing raw audio data (with no audio header),
306 or in conjunction with an  \fBoffset\fR to import a foreign audio file format.
307 .RE

309 .RE

311 .sp
312 .ne 2
313 .na
```



```
314 \fB\fBoffset\fR\fR
315 .ad
316 .RS 12n
317 (\fB-i\fR \fIonly\fR) Specifies a byte offset to locate the start of the audio
318 data. This option may be used to import audio data that contains an
319 unrecognized file header.
320 .RE

322 .SH USAGE
330 .sp
331 .LP
323 See \fBlargefile\fR(5) for the description of the behavior of
324 \fBaudioconvert\fR when encountering files greater than or equal to 2 Gbyte
325 (2^31 bytes).
333 \fBaudioconvert\fR when encountering files greater than or equal to 2 Gbyte (
334 2^31 bytes).
326 .SH EXAMPLES
336 .LP
327 \fBExample 1 \fRRecording and compressing voice data before storing it
328 .sp
329 .LP
330 Record voice data and compress it before storing it to a file:

332 .sp
333 .in +2
334 .nf
335 example% \fBaudiorecord | audioconvert -f g721 > mydata.au\fR
336 .fi
337 .in -2
338 .sp

340 .LP
341 \fBExample 2 \fRConcatenating two audio files
342 .sp
343 .LP
344 Concatenate two Sun format audio files, regardless of their data format, and
345 output an 8-bit ulaw, 16 kHz, mono file:

347 .sp
348 .in +2
349 .nf
350 example% \fBaudioconvert -f ulaw,rate=16k,mono -o outfile.au infile1 infile2\fR
351 .fi
352 .in -2
353 .sp

355 .LP
356 \fBExample 3 \fRConverting a directory to Sun format
357 .sp
358 .LP
359 Convert a directory containing raw voice data files, in place, to Sun format
360 (adds a file header to each file):

362 .sp
363 .in +2
364 .nf
365 example% \fBaudioconvert -p -i voice -f sun *.au\fR
366 .fi
367 .in -2
368 .sp

380 .SH ATTRIBUTES
381 .sp
382 .LP
383 See \fBattributes\fR(5) for descriptions of the following attributes:
384 .sp
```

```
.sp
.TS
box;
c | c
l | l .
ATTRIBUTE TYPE  ATTRIBUTE VALUE
_
Architecture    SPARC, x86
_
Interface Stability     Evolving
.TE

.SH SEE ALSO
\fBaudioplay\fR(1), \fBaudiorecord\fR(1), \fBfile\fR(1),
.sp
.LP
\fBaudioplay\fR(1), \fBaudiorecord\fR(1), \fBfile\fR(1), \fBattributes\fR(5),
\fBlargefile\fR(5)
.SH NOTES
.sp
.LP
The algorithm used for converting multi-channel data to mono is implemented by
simply summing the channels together. If the input data is perfectly in phase
(as would be the case if a mono file is converted to stereo and back to mono),
the resulting data may contain some distortion.
```

```
**********************************************************
    3767 Sat Feb  8 10:54:35 2020
new/usr/src/man/man1/audioctl.1
12287 errors in audio utility man pages
**********************************************************
'\" t
.\"
.\" This file and its contents are supplied under the terms of the
.\" Common Development and Distribution License ("CDDL"), version 1.0.
.\" You may only use this file in accordance with the terms of version
.\" 1.0 of the CDDL.
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.\" A full copy of the text of the CDDL should have accompanied this
.\" source.  A copy of the CDDL is also available via the Internet at
.\" http://www.illumos.org/license/CDDL.
.\"
.\"
.\" Copyright 2011 Nexenta Systems, Inc.  All rights reserved.
.\" Copyright 2020 Peter Tribble.
.\"
.TH AUDIOCTL 1 "Feb 8, 2020"
.TH AUDIOCTL 1 "Mar 18, 2011"
.SH NAME
audioctl - audio device control command line interface
.SH SYNOPSIS
.nf
\fBaudioctl\fR \fBlist-devices\fR
.fi

.LP
.nf
\fBaudioctl\fR \fBshow-device\fR [\fB-v\fR] [\fB-d\fR \fIdevice\fR]
.fi

.LP
.nf
\fBaudioctl\fR \fBshow-control\fR [\fB-v\fR] [\fB-d\fR \fIdevice\fR] [\fIcontrol
\fBaudioctl\fR \fBshow-control\fR [\fB-v\fR] [\fB-d\fR \fIdevice\fB] [\fIcontrol
.fi

.LP
.nf
\fBaudioctl\fR \fBset-control\fR [\fB-v\fR] [\fB-d\fR \fIdevice\fR] \fIcontrol\f
\fBaudioctl\fR \fBset-control\fR [\fB-v\fR] [\fB-d\fR \fIdevice\fB] \fIcontrol\f
.fi

.LP
.nf
\fBaudioctl\fR \fBsave-controls\fR [\fB-d\fR \fIdevice\fR] [\fB-f\fR] \fIfile\fR
\fBaudioctl\fR \fBsave-controls\fR [\fB-d\fR \fIdevice\fB] [\fB-f\fR] \fIfile\fR
.fi

.LP
.nf
\fBaudioctl\fR \fBload-controls\fR [\fB-d\fR \fIdevice\fR] \fIfile\fR
\fBaudioctl\fR \fBload-controls\fR [\fB-d\fR \fIdevice\fB] \fIfile\fR
.fi

.LP
.nf
\fBaudioctl\fR \fBhelp\fR
.fi

.SH DESCRIPTION
The \fBaudioctl\fP command is used to control various settings and features
of audio devices, including mixer settings such as playback volume and
```



```
record gain.
.SH SUBCOMMANDS
The \fBaudioctl\fR command supports the following subcommands.
.sp
.ne 2
.na
\fBlist-devices\fR
.ad
.sp .6
.RS 4n
List all the audio devices on the system.
.RE

.sp
.ne 2
.na
\fBshow-device\fR [\fB-v\fR] [\fB-d\fR \fIdevice\fR]
\fBshow-device\fR [\fB-v\fR] [\fB-d\fR \fIdevice\fR] [\fBcontrol\fR ... ]
.ad
.sp .6
.RS 4n
Display an informational overview of \fIdevice\fR (or the default device if
not specified).  If the \fB-v\fR option is specified, then more detail
will be displayed.
.RE

.sp
.ne 2
.na
\fBshow-control\fR [\fB-v\fR] [\fB-d\fR \fIdevice\fR] [\fBcontrol\fR ... ]
\fBshow-control\fR [\fB-v\fR] [\fB-d\fR \fIdevice\fR]
.ad
.sp .6
.RS 4n
Display the control settings for one or more \fIcontrols\fR of a
\fIdevice\fR (or the default device if not specified).  If no \fIcontrol\fR is
specified, then the settings for all controls will be displayed. If
the \fB-v\fR option is specified, then more detail will be displayed.
.RE

.sp
.ne 2
.na
\fBset-control\fR [\fB-v\fR] [\fB-d\fR \fIdevice\fR] \fIcontrol\fR \fIvalue\fR
\fBset-control\fR [\fB-v\fR] [\fB-d\fR \fIdevice\fB] \fIcontrol\fR \fIvalue\fR
.ad
.sp .6
.RS 4n
Set the control settings for a \fIcontrol\fR of a \fIdevice\fR (or the
default device if not specified) to \fIvalue\fR.  If the \fB-v\fR
option is specified, then more verbose output be displayed.
.RE

.sp
.ne 2
.na
\fBsave-controls\fR [\fB-f\fR] [\fB-d\fR \fIdevice\fR] \fIfile\fR
\fBsave-controls\fR [\fB-f\fR] [\fB-d\fR \fIdevice\fB] \fIfile\fR
.ad
.sp .6
.RS 4n
Save all control settings of the \fIdevice\fR (or the default device if not
specified) to the named \fIfile\fR.  This subcommand will not replace
or modify an existing file unless \fB-f\fR (force) is specified.
.RE
```

```
.sp
.ne 2
.na
\fBload-controls\fR [\fB-d\fR \fIdevice\fR] \fIfile\fR
\fBload-controls\fR [\fB-d\fR \fIdevice\fB] \fIfile\fR
.ad
.sp .6
.RS 4n
Load previously saved control settings from a \fIfile\fR
into a \fIdevice\fR (or all audio devices if not
specified).
.RE

.sp
.ne 2
.na
\fBhelp\fR
.ad
.sp .6
.RS 4n
Display the usage message.
.RE

.SH ENVIRONMENT VARIABLES
.ne 2
.na
\fB\fBAUDIODEV\fR\fR
.ad
.RS 12n
The full path name of the default audio device to use if one
is not specified on the command line.  If this variable is not set,
\fB/dev/audio\fR is used.
.RE


.SH ATTRIBUTES
See \fBattributes\fR(5) for descriptions of the following attributes:
.sp

.sp
.TS
box;
c | c
l | l .
ATTRIBUTE TYPE  ATTRIBUTE VALUE
_
Interface Stability     See below.
.TE
.LP
The \fBaudioctl\fR command and its subcommands are Committed.  The
names of controls, their values, and device names are Uncommitted.
The display output is intended for human consumption, and is Not An
Interface.  The format of the state files used by the
\fBsave-controls\fR and \fBload-controls\fR subcommands is Committed
Private.
.SH SEE ALSO
\fBaudioplay\fR(1), \fBaudiorecord\fR(1), \fBdsp\fR(7I),
\fBmixer\fR(7I)
\fBmixer\fR(7I), \fBattributes\fR(5)
```

```
**********************************************************
    5095 Sat Feb  8 10:54:35 2020
new/usr/src/man/man1/audioplay.1
12287 errors in audio utility man pages
**********************************************************
'\" te
.\"  Copyright (c) 2009, Sun Microsystems, Inc. All Rights Reserved
.\" The contents of this file are subject to the terms of the Common Development
.\"  See the License for the specific language governing permissions and limitat
.\" fields enclosed by brackets "[]" replaced with your own identifying informat
.TH AUDIOPLAY 1 "Feb 8, 2020"
.TH AUDIOPLAY 1 "May 13, 2017"
.SH NAME
audioplay \- play audio files
.SH SYNOPSIS
.LP
.nf
\fBaudioplay\fR [\fB-iV\fR] [\fB-v\fR \fIvol\fR] [\fB-d\fR \fIdev\fR] [\fIfile\f
.fi

.SH DESCRIPTION
.LP
The \fBaudioplay\fR utility copies the named audio files (or the standard input
if no filenames are present) to the audio device. If no input file is specified
and standard input is a tty, the program exits with an error message.
.sp
.LP
The input files must contain a valid audio file header. The encoding
information in this header is matched against the capabilities of the audio
device and, if the data formats are incompatible, an error message is printed
and the file is skipped. Compressed \fBADPCM\fR (G.721) monaural audio data is
automatically uncompressed before playing.
.sp
.LP
Minor deviations in sampling frequency (that is, less than 1%) are ordinarily
ignored. This allows, for instance, data sampled at 8012 Hz to be played on an
audio device that only supports 8000 Hz. If the \fB-V\fR option is present,
such deviations are flagged with warning messages.
.SH OPTIONS
.LP
The following options are supported:
.sp
.ne 2
.na
\fB\fB-d\fR \fIdev\fR\fR
.ad
.RS 11n
\fIDevice\fR: The \fIdev\fR argument specifies an alternate audio device to
which output should be directed. If the \fB-d\fR option is not specified, the
\fBAUDIODEV\fR environment variable is consulted (see below). Otherwise,
\fB/dev/audio\fR is used as the default audio device.
.RE

.sp
.ne 2
.na
\fB\fB-i\fR\fR
.ad
.RS 11n
\fIImmediate\fR: If the audio device is unavailable (that is, another process
currently has write access), \fBaudioplay\fR ordinarily waits until it can
obtain access to the device. When the \fB-i\fR option is present,
\fBaudioplay\fR prints an error message and exits immediately if the device is
busy.
.RE
```



```
.sp
.ne 2
.na
\fB\fB-v\fR \fIvol\fR\fR
.ad
.RS 11n
\fIVolume\fR: The output volume is set to the specified value before playing
begins, and is reset to its previous level when \fBaudioplay\fR exits. The
\fIvol\fR argument is an integer value between 0 and 100, inclusive. If this
argument is not specified, the output volume remains at the level most recently
set by any process.
.RE

.sp
.ne 2
.na
\fB\fB-V\fR\fR
.ad
.RS 11n
\fIVerbose\fR: Prints messages on the standard error when waiting for access to
the audio device or when sample rate deviations are detected.
.RE

.sp
.ne 2
.na
\fB\fB-?\fR\fR
\fB\fB\(mi\e?\fR\fR
.ad
.RS 11n
\fIHelp\fR: Prints a command line usage message.
.RE

.SH OPERANDS
.ne 2
.na
\fB\fIfile\fR\fR
.ad
.RS 8n
\fIFile Specification\fR: Audio files named on the command line are played
sequentially. If no filenames are present, the standard input stream (if it is
not a tty) is played (it, too, must contain an audio file header). The special
filename \fB\(mi\fR can be used to read the standard input stream instead of a
file. If a relative path name is supplied, the \fBAUDIOPATH\fR environment
variable is consulted (see below).
.RE

.SH USAGE
.LP
See \fBlargefile\fR(5) for the description of the behavior of \fBaudioplay\fR
when encountering files greater than or equal to 2 Gbyte (2^31 bytes).
when encountering files greater than or equal to 2 Gbyte ( 2^31 bytes).
.SH ENVIRONMENT VARIABLES
.ne 2
.na
\fB\fBAUDIODEV\fR\fR
.ad
.RS 13n
The full path name of the audio device to write to, if no \fB-d\fR argument is
supplied. If the \fBAUDIODEV\fR variable is not set, \fB/dev/audio\fR is used.
.RE

.sp
.ne 2
.na
\fB\fBAUDIOPATH\fR\fR
```

```
.ad
.RS 13n
A colon-separated list of directories in which to search for audio files whose
names are given by relative pathnames. The current directory (\fB\&.\fR) can be
specified explicitly in the search path. If the \fBAUDIOPATH\fR variable is not
set, only the current directory is searched.
.RE

.SH ATTRIBUTES
.LP
See \fBattributes\fR(5) for descriptions of the following attributes:
.sp

.sp
.TS
box;
c | c
l | l .
ATTRIBUTE TYPE  ATTRIBUTE VALUE
_
Architecture    SPARC, x86
_
Interface Stability     Committed
.TE

.SH SEE ALSO
.LP
\fBaudioconvert\fR(1), \fBaudiorecord\fR(1),
\fBlargefile\fR(5), \fBaudio\fR(7I)
\fBattributes\fR(5), \fBlargefile\fR(5), \fBaudio\fR(7I)
.SH BUGS
.LP
\fBaudioplay\fR currently supports a limited set of audio format conversions.
If the audio file is not in a format supported by the audio device, it must
first be converted. For example, to convert to voice format on the fly, use the
command:
.sp
.in +2
.nf
example% \fBaudioconvert -f voice myfile | audioplay\fR
.fi
.in -2
.sp

.sp
.LP
The format conversion is not always be able to keep up with the audio output.
If this is the case, you should convert to a temporary file before playing the
data.
```

```
**********************************************************
    6386 Sat Feb  8 10:54:35 2020
new/usr/src/man/man1/audiorecord.1
12287 errors in audio utility man pages
**********************************************************
'\" te
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.\" fields enclosed by brackets "[]" replaced with your own identifying informat
.TH AUDIORECORD 1 "Feb 8, 2020"
.TH AUDIORECORD 1 "May 13, 2017"
.SH NAME
audiorecord \- record an audio file
.SH SYNOPSIS
.LP
.nf
\fBaudiorecord\fR [\fB-af\fR] [\fB-v\fR \fIvol\fR] [\fB-c\fR \fIchannels\fR] [\f
\fBaudiorecord\fR [\fB-af\fR] [\fB-v\fR \fIvol\fR] [\fB-c\fR \fIchannels\fR] [\f
     [\fB-e\fR \fIencoding\fR] [\fB-t\fR \fItime\fR] [\fB-i\fR \fIinfo\fR] [\fB-
     [\fB-T\fR \fBau\fR|\fBaif\fR[\fBf\fR]|\fBwav\fR] [\fIfile\fR[.\fBau\fR|.\fB
     [\fB-T\fR \fBau\fR | \fBaif\fR[\fBf\fR] | \fBwav\fR] [\fIfile\fR[.\fBau\fR|
.fi

.SH DESCRIPTION
.LP
The \fBaudiorecord\fR utility copies audio data from the audio device to a
named audio file, or to the standard output if no filename is present. If no
output file is specified and standard output is a tty, the program exits with
an error message.
.sp
.LP
By default, monaural audio data is recorded at 8 kHz and encoded in \fBu-law\fR
By default, monaural audio data is recorded at 8 kHz and encoded in \fB-law\fR
format. If the audio device supports additional configurations, the \fB-c\fR,
\fB-s\fR, and \fB-e\fR options may be used to specify the data format. The
output file is prefixed by an audio file header that identifies the format of
the data encoded in the file.
.sp
.LP
Recording begins immediately and continues until a \fBSIGINT\fR signal (for
example, Control-c) is received. If the \fB-t\fR option is specified,
\fBaudiorecord\fR stops when the specified quantity of data has been recorded.
.sp
.LP
If the audio device is unavailable, that is, if another process currently has
read access, \fBaudiorecord\fR prints an error message and exits immediately.
.SH OPTIONS
.LP
The following options are supported:
.sp
.ne 2
.na
\fB\fB-?\fR\fR
\fB\fB-\e?\fR\fR
.ad
.RS 24n
\fIHelp\fR: Prints a command line usage message.
.RE

.sp
.ne 2
.na
\fB\fB-a\fR\fR
.ad
```



```
.RS 24n
\fIAppend\fR: Appends the data on the end of the named audio file. The audio
device must support the audio data format of the existing file.
.RE

.sp
.ne 2
.na
\fB\fB-c\fR \fIchannels\fR\fR
.ad
.RS 24n
\fIChannels\fR: Specifies the number of audio channels (1 or 2). The value may
be specified as an integer or as the string \fBmono\fR or \fBstereo\fR. The
default value is \fBmono\fR.
.RE

.sp
.ne 2
.na
\fB\fB-d\fR \fIdev\fR\fR
.ad
.RS 24n
\fIDevice\fR: The \fIdev\fR argument specifies an alternate audio device from
which input should be taken. If the \fB-d\fR option is not specified, the
\fBAUDIODEV\fR environment variable is consulted (see below). Otherwise,
\fB/dev/audio\fR is used as the default audio device.
.RE

.sp
.ne 2
.na
\fB\fB-e\fR \fIencoding\fR\fR
.ad
.RS 24n
\fIEncoding\fR: Specifies the audio data encoding. This value may be one of
\fBulaw\fR, \fBalaw\fR, or \fBlinear\fR. The default encoding is \fBulaw\fR.
.RE

.sp
.ne 2
.na
\fB\fB-f\fR\fR
.ad
.RS 24n
\fIForce\fR: When the \fB-a\fR flag is specified, the sample rate of the audio
device must match the sample rate at which the original file was recorded. If
the \fB-f\fR flag is also specified, sample rate differences are ignored, with
a warning message printed on the standard error.
.RE

.sp
.ne 2
.na
\fB\fB-i\fR \fIinfo\fR\fR
.ad
.RS 24n
\fIInformation\fR: The ‘information’ field of the output file header is set to
the string specified by the \fIinfo\fR argument. This option cannot be
specified in conjunction with the \fB-a\fR argument.
.RE

.sp
.ne 2
.na
\fB\fB-s\fR \fIrate\fR\fR
.ad
```

```
.RS 24n
\fISample Rate\fR: Specifies the sample rate, in samples per second. If a
number is followed by the letter \fBk\fR, it is multiplied by 1000 (for
example, 44.1k = 44100). The default sample rate is 8 kHz.
.RE

.sp
.ne 2
.na
\fB\fB-t\fR \fItime\fR\fR
.ad
.RS 24n
\fITime\fR: The \fItime\fR argument specifies the maximum length of time to
record. Time can be specified as a floating-point value, indicating the number
of seconds, or in the form: \fIhh:mm:ss.dd\fR, where the hour and minute
specifications are optional.
.RE

.sp
.ne 2
.na
\fB\fB-T\fR \fBau\fR | \fBaif\fR[\fBf\fR] | \fBwav\fR\fR
.ad
.RS 24n
Specifies the audio file type to create. If the \fB-a\fR option is used, the
file type must match the file to which it is being appended. Regardless of the
file suffix, the type is set as specified in this option. If this option is not
specified, the file suffix determines the type.
.RE

.sp
.ne 2
.na
\fB\fB-v\fR \fIvol\fR\fR
.ad
.RS 24n
\fIVolume\fR: The recording gain is set to the specified value before recording
begins, and is reset to its previous level when \fBaudiorecord\fR exits. The
\fIvol\fR argument is an integer value between 0 and 100, inclusive. If this
argument is not specified, the input volume remains at the level most recently
set by any process.
.RE

.SH OPERANDS
.ne 2
.na
\fIfile\fR[\fB\&.au\fR|\fB\&.aif\fR[\fBf\fR]|\fB\&.wav\fR]
\fB\fIfile\fR[\fB\&.au\fR|\fB\&.aif\fR[\fBf\fR]]|\fB\&.wav\fR\fR
.ad
.sp .6
.RS 4n
\fIFile Specification\fR: The named audio file is rewritten, or appended. If no
filename is present, and standard output is not a tty, or if the special
filename "\fB\(mi\fR" is specified, output is directed to the standard
output.
.sp
If the \fB-T\fR option is not specified, the file suffix determines the type of
file. If the suffix is not recognized, the default is \fB\&.au\fR. If the
\fB-T\fR option \fBis\fR specified, that file type is used regardless of the
file suffix.
.RE

.SH USAGE
.LP
See \fBlargefile\fR(5) for the description of the behavior of \fBaudiorecord\fR
when encountering files greater than or equal to 2 Gbyte (2^31 bytes).
```



```
when encountering files greater than or equal to 2 Gbyte ( 2^31 bytes).
.SH ENVIRONMENT VARIABLES
.ne 2
.na
\fB\fBAUDIODEV\fR\fR
.ad
.RS 12n
The full path name of the audio device to record from, if no \fB-d\fR argument
is supplied. If the \fBAUDIODEV\fR variable is not set, \fB/dev/audio\fR is
used.
.RE

.SH ATTRIBUTES
.LP
See \fBattributes\fR(5) for descriptions of the following attributes:
.sp

.sp
.TS
box;
c | c
l | l .
ATTRIBUTE TYPE  ATTRIBUTE VALUE
_
Architecture    SPARC, x86
_
Interface Stability     Committed
.TE

.SH SEE ALSO
.LP
\fBaudioconvert\fR(1), \fBaudioplay\fR(1),
\fBlargefile\fR(5), \fBaudio\fR(7I)
\fBattributes\fR(5), \fBlargefile\fR(5), \fBaudio\fR(7I)
```

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**********************************************************
    2760 Sat Feb  8 10:54:35 2020
new/usr/src/man/man1/audiotest.1
12287 errors in audio utility man pages
**********************************************************
   1 '\" te
   2 .\"  Copyright (c) 2009, Sun Microsystems, Inc. All Rights Reserved
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   5 .\"  See the License for the specific language governing permissions and limitat
   6 .\" fields enclosed by brackets "[]" replaced with your own identifying informat
   7 .TH AUDIOTEST 1 "Feb 8, 2020"
   6 .TH AUDIOTEST 1 "May 13, 2017"
   8 .SH NAME
   9 audiotest \- test audio device
  10 .SH SYNOPSIS
  10 .LP
  11 .nf
  12 \fBaudiotest\fR [\fB-2457\fR] [\fB-l\fR] [\fB-r\fR \fIrate\fR] [\fIdev\fR] ...
  12 \fBaudiotest\fR [\fB-2457\fR] [\fIdev\fR] ...
  13 .fi

  15 .SH DESCRIPTION
  16 .LP
  16 The \fBaudiotest\fR utility runs a test for the named audio device (or all
  17 audio devices found on the system if none is given). The test includes playing
  18 an audio sample over each channel and measuring the rate of playback for clock
  19 drift.
  20 .SH OPTIONS
  22 .LP
  21 The following options are supported:
  22 .sp
  23 .ne 2
  24 .na
  25 \fB-l\fR
  27 \fB\fB-1\fR\fR
  26 .ad
  27 .RS 6n
  28 Loop mode. The test is run in an infinite loop.
  29 .RE

  31 .sp
  32 .ne 2
  33 .na
  34 \fB-r\fR \fIrate\fR
  36 \fB\fB-2\fR\fR
  35 .ad
  36 .RS 6n
  37 Sample rate. By default 48000Hz is used.
  38 .RE

  40 .sp
  41 .ne 2
  42 .na
  43 \fB-2\fR
  44 .ad
  45 .RS 6n
  46 Stereo (2-channel) mode. This is the default mode. Playback assumes 2 channels
  47 are present.
  48 .RE

  50 .sp
  51 .ne 2
  52 .na
  53 \fB-4\fR
  46 \fB\fB-4\fR\fR
```



```
  54 .ad
  55 .RS 6n
  56 Quadraphonic mode (4-channel surround). The test assumes that four surround
  57 channels are present.
  58 .RE

  60 .sp
  61 .ne 2
  62 .na
  63 \fB-5\fR
  56 \fB\fB-5\fR\fR
  64 .ad
  65 .RS 6n
  66 Surround sound mode (5.1). The test checks the left, right, surround left,
  67 surround right, and center channels. The low frequency effects channel is not
  68 tested.
  69 .RE

  71 .sp
  72 .ne 2
  73 .na
  74 \fB-7\fR
  67 \fB\fB-7\fR\fR
  75 .ad
  76 .RS 6n
  77 Surround sound mode (7.1). The test checks the left, right, surround left,
  78 surround right, back surround left, back surround right, and center channels.
  79 The low frequency effects channel is not tested.
  80 .RE

  82 .sp
  83 .LP
  84 If multiple modes are specified, the last one specified is used.

  86 .SH OPERANDS
  87 .ne 2
  88 .na
  89 \fIdev\fR
  78 \fB\fIdev\fR\fR
  90 .ad
  91 .RS 7n
  92 The path to the device to test, for example, \fB/dev/dsp0\fR.
  81 The path the device to test, for example, \fB/dev/dsp0\fR.
  93 .RE

  84 .SH ATTRIBUTES
  85 .LP
  86 See \fBattributes\fR(5) for descriptions of the following attributes:
  87 .sp

  89 .sp
  90 .TS
  91 box;
  92 c | c
  93 l | l .
  94 ATTRIBUTE TYPE  ATTRIBUTE VALUE
  95 _
  96 Architecture    SPARC, x86
  97 _
  98 Interface Stability     Committed
  99 .TE

  95 .SH SEE ALSO
 102 .LP
  96 \fBaudioconvert\fR(1), \fBaudiorecord\fR(1),
  97 \fBaudio\fR(7I)
```

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104 \fBattributes\fR(5), \fBaudio\fR(7I)
 98 .SH BUGS
106 .LP
 99 \fBaudiotest\fR has no way to detect the number of actual audio channels
100 supported by the physical device.
101 .sp
102 .LP
103 \fBaudiotest\fR does not test the low-frequency effects (LFE) channel.
104 .sp
105 .LP
106 There is no test for audio capture, volume controls, or other advanced device
107 features.
```