
***Rocky Enterprise Linux 9.2 Manual Pages on command 'arecord.1'***

***$ man arecord.1***

APLAY(1) General Commands Manual APLAY(1)

NAME

arecord, aplay - command-line sound recorder and player for ALSA sound?

card driver

SYNOPSIS

arecord [flags] [filename]

aplay [flags] [filename [filename]] ...

DESCRIPTION

arecord is a command-line soundfile recorder for the ALSA soundcard

driver. It supports several file formats and multiple soundcards with

multiple devices. If recording with interleaved mode samples the file

is automatically split before the 2GB filesize.

aplay is much the same, only it plays instead of recording. For sup?

ported soundfile formats, the sampling rate, bit depth, and so forth

can be automatically determined from the soundfile header.

If filename is not specified, the standard output or input is used. The

aplay utility accepts multiple filenames.

OPTIONS

-h, --help

Help: show syntax.

--version

Print current version.

-l, --list-devices

List all soundcards and digital audio devices

-L, --list-pcms

List all PCMs defined

-D, --device=NAME

Select PCM by name

-q --quiet

Quiet mode. Suppress messages (not sound :))

-t, --file-type TYPE

File type (voc, wav, raw or au). If this parameter is omitted

the WAVE format is used.

-c, --channels=#

The number of channels. The default is one channel. Valid val?

ues are 1 through 32.

-f --format=FORMAT

Sample format

Recognized sample formats are: S8 U8 S16_LE S16_BE U16_LE U16_BE

S24_LE S24_BE U24_LE U24_BE S32_LE S32_BE U32_LE U32_BE FLOAT_LE

FLOAT_BE FLOAT64_LE FLOAT64_BE IEC958_SUBFRAME_LE IEC958_SUB?

FRAME_BE MU_LAW A_LAW IMA_ADPCM MPEG GSM SPECIAL S24_3LE S24_3BE

U24_3LE U24_3BE S20_3LE S20_3BE U20_3LE U20_3BE S18_3LE S18_3BE

U18_3LE

Some of these may not be available on selected hardware

The available format shortcuts are:

-f cd (16 bit little endian, 44100, stereo) [-f S16_LE -c2 -r44100]

-f cdr (16 bit big endian, 44100, stereo) [-f S16_BE -c2 -r44100]

-f dat (16 bit little endian, 48000, stereo) [-f S16_LE -c2 -r48000]

If no format is given U8 is used.

-r, --rate=#<Hz>

Sampling rate in Hertz. The default rate is 8000 Hertz. If the value specified is less than 300, it is taken as the rate in kilohertz. Valid values are 2000 through 192000 Hertz.

-d, --duration=#

Interrupt after # seconds. A value of zero means infinity. The default is zero, so if this option is omitted then the record/playback process will run until it is killed. Either '-d' or '-s' option is available exclusively.

-s, --samples=#

Interrupt after transmission of # PCM frames. A value of zero means infinity. The default is zero, so if this options is omitted then the record/playback process will run until it is killed. Either '-d' or '-s' option is available exclusively.

-M, --mmap

Use memory-mapped (mmap) I/O mode for the audio stream. If this option is not set, the read/write I/O mode will be used.

-N, --nonblock

Open the audio device in non-blocking mode. If the device is busy the program will exit immediately. If this option is not set the program will block until the audio device is available again.

-F, --period-time=#

Distance between interrupts is # microseconds. If no period time and no period size is given then a quarter of the buffer time is set.

-B, --buffer-time=#

Buffer duration is # microseconds If no buffer time and no buf? fer size is given then the maximal allowed buffer time but not more than 500ms is set.

--period-size=#

Distance between interrupts is # frames If no period size and no period time is given then a quarter of the buffer size is set.

--buffer-size=#

Buffer duration is # frames If no buffer time and no buffer size is given then the maximal allowed buffer time but not more than 500ms is set.

-A, --avail-min=#

Min available space for wakeup is # microseconds

-R, --start-delay=#

Delay for automatic PCM start is # microseconds (relative to buffer size if <= 0)

-T, --stop-delay=#

Delay for automatic PCM stop is # microseconds from xrun

-v, --verbose

Show PCM structure and setup. This option is accumulative. The VU meter is displayed when this is given twice or three times.

-V, --vumeter=TYPE

Specifies the VU-meter type, either stereo or mono. The stereo VU-meter is available only for 2-channel stereo samples with in? terleaved format.

-I, --separate-channels

One file for each channel. This option disables max-file-time and use-strftime, and ignores SIGUSR1. The stereo VU meter is not available with separate channels.

-P Playback. This is the default if the program is invoked by typ? ing aplay.

-C Record. This is the default if the program is invoked by typing arecord.

-i, --interactive

Allow interactive operation via stdin. Currently only pause/re? sume via space or enter key is implemented.

-m, --chmap=ch1,ch2,...

Give the channel map to override or follow. Pass channel posi? tion strings like FL, FR, etc.

If a device supports the override of the channel map, aplay tries to pass the given channel map. If it doesn't support the

channel map override but still it provides the channel map in?
formation, aplay tries to rearrange the channel order in the
buffer to match with the returned channel map from the device.

--disable-resample

Disable automatic rate resample.

--disable-channels

Disable automatic channel conversions.

--disable-format

Disable automatic format conversions.

--disable-softvol

Disable software volume control (softvol).

--test-position

Test ring buffer position.

--test-coef=<coef>

Test coefficient for ring buffer position; default is 8. Ex?
pression for validation is: coef * (buffer_size / 2). Minimum
value is 1.

--test-nowait

Do not wait for the ring buffer ? eats the whole CPU.

--max-file-time

While recording, when the output file has been accumulating
sound for this long, close it and open a new output file. De?
fault is the maximum size supported by the file format: 2 GiB
for WAV files. This option has no effect if --separate-chan?
nels is specified.

--process-id-file <file name>

aplay writes its process ID here, so other programs can send
signals to it.

--use-strftime

When recording, interpret %-codes in the file name parameter us?
ing the strftime facility whenever the output file is opened.
The important strftime codes are: %Y is the year, %m month, %d
day of the month, %H hour, %M minute and %S second. In addi?

tion, %v is the file number, starting at 1. When this option is specified, intermediate directories for the output file are cre? ated automatically. This option has no effect if --sepa? rate-channels is specified.

--dump-hw-params

Dump hw_params of the device preconfigured status to stderr. The dump lists capabilities of the selected device such as supported formats, sampling rates, numbers of channels, period and buffer bytes/sizes/times. For raw device hw:X this option basically lists hardware capabilities of the soundcard.

--fatal-errors

Disables recovery attempts when errors (e.g. xrun) are encoun? tered; the aplay process instead aborts immediately.

SIGNALS

When recording, SIGINT, SIGTERM and SIGABRT will close the output file and exit. SIGUSR1 will close the output file, open a new one, and con? tinue recording. However, SIGUSR1 does not work with --separate-chan? nels.

EXAMPLES

aplay -c 1 -t raw -r 22050 -f mu_law foobar

will play the raw file "foobar" as a 22050-Hz, mono, 8-bit, Mu-Law .au file.

arecord -d 10 -f cd -t wav -D copy foobar.wav

will record foobar.wav as a 10-second, CD-quality wave file, us? ing the PCM "copy" (which might be defined in the user's .asoundrc file as:

```
pcm.copy {
  type plug
  slave {
    pcm hw
  }
  route_policy copy
}
```

arecord -t wav --max-file-time 30 mon.wav

Record from the default audio source in monaural, 8,000 samples per second, 8 bits per sample. Start a new file every 30 sec? onds. File names are mon-nn.wav, where nn increases from 01. The file after mon-99.wav is mon-100.wav.

arecord -f cd -t wav --max-file-time 3600 --use-strftime %Y/%m/%d/lis? ten-%H-%M-%v.wav

Record in stereo from the default audio source. Create a new file every hour. The files are placed in directories based on their start dates and have names which include their start times and file numbers.

SEE ALSO

alsamixer(1), amixer(1)

BUGS

Note that .aiff files are not currently supported.

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1 January 2010 APLAY(1)