

**NAME**

out123 – send raw PCM audio or a waveform pattern to an output device

**SYNOPSIS**

**cat audio.raw | out123 [ options ]**

**out123 --wave-freq freq1[,freq2,...] [ options ]**

**DESCRIPTION**

**out123** reads raw PCM data (in host byte order) from standard input and plays it on the audio device specified by given options. Alternatively, it can generate periodic signals for playback itself.

**OPTIONS**

**out123** options may be either the traditional POSIX one letter options, or the GNU style long options. POSIX style options start with a single “-”, while GNU long options start with “--”. Option arguments (if needed) follow separated by whitespace (not “=”). Note that some options can be absent from your installation when disabled in the build process.

**--name** *name*

Set the name of this instance, possibly used in various places. This sets the client name for JACK output.

**-o** *module*, **--output** *module*

Select audio output module. You can provide a comma-separated list to use the first one that works.

**--list-modules**

List the available modules.

**-a** *dev*, **--audiodevice** *dev*

Specify the audio device to use. The default is system-dependent (usually /dev/audio or /dev/dsp). Use this option if you have multiple audio devices and the default is not what you want.

**-s**, **--stdout**

The audio samples are written to standard output, instead of playing them through the audio device. The output format is the same as the input ... so in this mode, **out123** acts like the standard tool **cat**. **This shortcut is equivalent to “-o raw -a -”.**

**-O** *file*, **--outfile**

Write raw output into a file (instead of simply redirecting standard output to a file with the shell). This shortcut is equivalent to “-o raw -a *file*”.

**-w** *file*, **--wav**

Write output as WAV file *file*, or standard output if - is or the empty string used as file name. You can also use *--au* and *--cdr* for AU and CDR format, respectively. Note that WAV/AU writing to non-seeking files or redirected stdout needs some thought. The header is written with the first actual data. The result of decoding nothing to WAV/AU is a file consisting just of the header when it is seekable and really nothing when not (not even a header). Correctly writing data with prophetic headers to stdout is no easy business. This shortcut is equivalent to “-o wav -a *file*”.

**--au** *file*

Write to *file* in SUN audio format. If - or the empty string is used as the filename, the AU file is written to stdout. See paragraph about WAV writing for header fun with non-seeking streams. This shortcut is equivalent to “-o au -a *file*”.

**--cdr** *file*

Write to *file* as a CDR (CD-ROM audio, more correctly CDDA for Compact Disc Digital Audio). If - is or the empty string used as the filename, the CDR file is written to stdout. This shortcut is equivalent to “-o cdr -a *file*”.

- r rate, --rate rate**  
Set sample rate in Hz (default: 44100). If this does not match the actual input sampling rate, you get changed pitch. Might be intentional;-)
- c count, --channels count**  
Set channel count to given value.
- e enc, --encoding enc**  
Choose output sample encoding. Possible values look like f32 (32-bit floating point), s32 (32-bit signed integer), u32 (32-bit unsigned integer) and the variants with different numbers of bits (s24, u24, s16, u16, s8, u8) and also special variants like ulaw and alaw 8-bit. See the output of **out123**'s longhelp for actually available encodings. Default is s16.
- m, --mono**  
Set for single-channel audio (default is two channels, stereo).
- stereo**  
Select stereo output (2 channels, default).
- list-encodings**  
List known encoding short and long names to standard output.
- test-format**  
Check if given format is supported by given driver and device (in command line before encountering this), silently returning 0 as exit value if it is the case.
- test-encodings**  
Print out the short names of encodings supported with the current setup.
- query-format**  
If the selected driver and device communicate some default accepted format, print out a command line fragment for **out123** setting that format, always in that order: `--rate <r> --channels <c> --encoding <e>`
- o h, --headphones**  
Direct audio output to the headphone connector (some hardware only; AIX, HP, SUN).
- o s, --speaker**  
Direct audio output to the speaker (some hardware only; AIX, HP, SUN).
- o l, --lineout**  
Direct audio output to the line-out connector (some hardware only; AIX, HP, SUN).
- b size, --buffer size**  
Use an audio output buffer of *size* Kbytes. This is useful to bypass short periods of heavy system activity, which would normally cause the audio output to be interrupted. You should specify a buffer size of at least 1024 (i.e. 1 Mb, which equals about 6 seconds of usual audio data) or more; less than about 300 does not make much sense. The default is 0, which turns buffering off.
- preload fraction**  
Wait for the buffer to be filled to *fraction* before starting playback (fraction between 0 and 1). You can tune this prebuffering to either get sound faster to your ears or safer uninterrupted web radio. Default is 0.2 (changed from 1 since version 1.23).
- devbuffer seconds**  
Set device buffer in seconds; `<= 0` means default value. This is the small buffer between the application and the audio backend, possibly directly related to hardware buffers.
- timelimit samples**  
Set playback time limit in PCM samples if set to a value greater than zero. **out123** will stop reading from stdin or playing from the generated wave table after reaching that number of samples.

- wave-freq** *frequencies*  
Set wave generator frequency or list of those with comma separation for enabling a generated test signal instead of standard input. Empty values repeat the previous one.
- wave-pat** *patterns*  
Set the waveform patterns of the generated waves as comma-separated list. Choices include sine, square, triangle, sawtooth, gauss, pulse, and shot. Empty values repeat the previous one.
- wave-phase** *phases*  
Set waveform phase shift(s) as comma-separated list, negative values inverting the pattern in time and empty value repeating the previous.
- wave-limit** *samples*  
Set a custom soft limit on the wave table size. Small values cause larger changes in actual frequencies to make whole periods fit.
- t, --test**  
Test mode. The audio stream is read, but no output occurs.
- v, --verbose**  
Increase the verbosity level.
- q, --quiet**  
Quiet. Suppress diagnostic messages.
- aggressive**  
Tries to get higher priority
- T, --realtime**  
Tries to gain realtime priority. This option usually requires root privileges to have any effect.
- , --help**  
Shows short usage instructions.
- longhelp**  
Shows long usage instructions.
- version**  
Print the version string.

## AUTHORS

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## LICENSE

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## WEBSITE

<http://www.mpg123.org>

<http://sourceforge.net/projects/mpg123>