

Package ‘fluidsynth’

August 16, 2024

Type Package

Title Read and Play Digital Music (MIDI)

Version 1.0.1

Description Bindings to 'libfluidsynth' to parse and synthesize MIDI files. It can read MIDI into a data frame, play it on the local audio device, or convert into an audio file.

License MIT + file LICENSE

Encoding UTF-8

RoxygenNote 7.3.1

Imports av, rappdirs

SystemRequirements fluidsynth: fluidsynth-devel (rpm) or libfluidsynth-dev (deb). On Linux you also need a soundfont provided by 'fluid-soundfont-gm' (Fedora) or 'sf3-soundfont-gm' (Debian/Ubuntu)

URL <https://docs.ropensci.org/fluidsynth/>
<https://ropensci.r-universe.dev/fluidsynth>

BugReports <https://github.com/ropensci/fluidsynth/issues>

NeedsCompilation yes

Author Jeroen Ooms [aut, cre] (<<https://orcid.org/0000-0002-4035-0289>>),
S. Christian Collins [cph] (author of generaluser-gs soundbank)

Maintainer Jeroen Ooms <jeroen@berkeley.edu>

Repository CRAN

Date/Publication 2024-08-16 14:30:02 UTC

Contents

fluidsynth_settings	2
midi_play	3
soundfonts	4

Index	5
--------------	----------

fluidsynth_settings *Fluidsynth settings*

Description

Get available settings and their types. See [fluidsynth docs](#) for more information on the available options.

Usage

```
fluidsynth_setting_list()

fluidsynth_setting_options(setting)

fluidsynth_setting_default(setting)

libfluidsynth_version()
```

Arguments

setting	string with one of the options listed in fluidsynth_setting_list() , see examples.
---------	--

Value

a list with available options

References

[FluidSynth Settings Reference](#)

See Also

Other fluidsynth: [midi_play\(\)](#), [soundfonts](#)

Examples

```
# List available settings:
fluidsynth_setting_list()
fluidsynth_setting_options('audio.driver')
fluidsynth_setting_default('synth.sample-rate')
```

midi_play	<i>Play or convert a midi file</i>
-----------	------------------------------------

Description

Play a midi file to your audio device, render it to a file, or parse the raw data. Additional settings can be specified, see [fluidsynth_setting_list](#) for available options.

Usage

```
midi_play(  
  midi = demo_midi(),  
  soundfont = soundfont_path(),  
  audio.driver = NULL,  
  settings = list(),  
  verbose = interactive()  
)  
  
midi_convert(  
  midi = demo_midi(),  
  soundfont = soundfont_path(),  
  output = "output.mp3",  
  settings = list(),  
  verbose = interactive()  
)  
  
midi_read(midi = demo_midi(), verbose = FALSE)  
  
demo_midi()
```

Arguments

midi	path to the midi file
soundfont	path to the soundfont
audio.driver	which audio driver to use, see fluidsynth docs
settings	a named vector with additional settings from fluidsynth_setting_list()
verbose	print some progress status to the terminal
output	filename of the output. The out

Details

The `midi_convert` function internally uses `fluidsynth` to generate a raw wav file, and then `av::av_audio_convert()` to convert into the requested about format. See `av::av_muxers()` for supported output formats and their corresponding file extension.

You need a soundfont to synthesize midi, see the [soundfonts](#) page. On Linux you may also need to specify an `audio.driver` that works for your hardware, although on recent distributions the defaults generally work.

Value

midi_read returns data frame with midi events.

See Also

Other fluidsynth: [fluidsynth_settings](#), [soundfonts](#)

Examples

```
df <- midi_read(demo_midi())
```

soundfonts

Managing soundfonts

Description

FluidSynth requires a soundfont to synthesize a midi. On Linux distributions some soundfonts are often preinstalled, though their quality varies. If your midi sounds very poor, try using another soundfont.

Usage

```
soundfont_path(download = FALSE)
```

```
soundfont_download()
```

Arguments

download automatically download soundfont if none exists.

Details

GeneralUser-GS by S. Christian Collins is a nice free soundfont. You can use `soundfont_download()` to install a copy of this soundbank for use by this package.

Value

the path to a local soundfont to synthesize a midi file.

See Also

Other fluidsynth: [fluidsynth_settings](#), [midi_play\(\)](#)

Index

* **fluidsynth**

- fluidsynth_settings, 2
- midi_play, 3
- soundfonts, 4

av::av_audio_convert(), 3
av::av_muxers(), 3

demo_midi (midi_play), 3

fluidsynth_setting_default
 (fluidsynth_settings), 2
fluidsynth_setting_list, 3
fluidsynth_setting_list
 (fluidsynth_settings), 2
fluidsynth_setting_list(), 2, 3
fluidsynth_setting_options
 (fluidsynth_settings), 2
fluidsynth_settings, 2, 4

libfluidsynth_version
 (fluidsynth_settings), 2

midi_convert (midi_play), 3
midi_play, 2, 3, 4
midi_read (midi_play), 3

soundfont_download (soundfonts), 4
soundfont_path (soundfonts), 4
soundfonts, 2-4, 4