
omxplayer-wrapper Documentation

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omxplayer-wrapper is a project to control [OMXPlayer](#) from python over [dbus](#).

CHAPTER 1

Installation:

You'll need the following dependencies:

- *libdbus-1*
- *libdbus-1-dev*

OS pre-requisite installation

```
$ sudo apt-get update && sudo apt-get install -y libdbus-1{,-dev}
```

With `pipenv`

```
$ pipenv install omxplayer-wrapper
```

With `Pip`

```
$ pip install omxplayer-wrapper
```


CHAPTER 2

Examples:

Listing 2.1: Playing local video file

```
#!/usr/bin/env python3

from omxplayer.player import OMXPlayer
from pathlib import Path
from time import sleep

VIDEO_PATH = Path("../tests/media/test_media_1.mp4")

player = OMXPlayer(VIDEO_PATH)

sleep(5)

player.quit()
```

Listing 2.2: Playing RTSP stream

```
#!/usr/bin/env python3

from omxplayer.player import OMXPlayer
from time import sleep

STREAM_URI = 'rtsp://184.72.239.149/vod/mp4:BigBuckBunny_175k.mov'

player = OMXPlayer(STREAM_URI)

sleep(8)

player.quit()
```

Listing 2.3: Advanced usage

```
#!/usr/bin/env python3

from omxplayer.player import OMXPlayer
from pathlib import Path
from time import sleep
import logging
logging.basicConfig(level=logging.INFO)

VIDEO_1_PATH = "../tests/media/test_media_1.mp4"
player_log = logging.getLogger("Player 1")

player = OMXPlayer(VIDEO_1_PATH,
                   dbus_name='org.mpris.MediaPlayer2.omxplayer1')
player.playEvent += lambda _: player_log.info("Play")
player.pauseEvent += lambda _: player_log.info("Pause")
player.stopEvent += lambda _: player_log.info("Stop")

# it takes about this long for omxplayer to warm up and start displaying a picture on,
→ a rpi3
sleep(2.5)

player.set_position(5)
player.pause()

sleep(2)

player.set_aspect_mode('stretch')
player.set_video_pos(0, 0, 200, 200)
player.play()

sleep(5)

player.quit()
```

Learning more:

API docs:

3.1 omxplayer API Docs

3.1.1 omxplayer.player

exception omxplayer.player.**FileNotFoundError**

Bases: Exception

class omxplayer.player.**OMXPlayer**(*source*, *args*=[], *bus_address_finder*=None, *Connection*=None, *dbus_name*=None, *pause*=False)

Bases: object

OMXPlayer controller

This works by speaking to OMXPlayer over Dbus sending messages.

Parameters

- **source** (*str*) – Path to the file (as ~/Videos/my-video.mp4) or URL you wish to play
- **args** (*list*) – used to pass option parameters to omxplayer. see: <https://github.com/popcornmix/omxplayer#synopsis>

Multiple argument example:

```
>>> OMXPlayer('path.mp4', args=['--no-osd', '--no-keys', '-b'])
```

action (*code*)

Executes a keyboard command via a code

Parameters **code** (*int*) – The key code you wish to emulate refer to `keys.py` for the possible keys

aspect_ratio ()

Returns aspect ratio

Return type float

can_control ()

Returns whether the player can be controlled

Return type bool

can_go_next ()

Returns whether the player can move to the next item in the playlist

Return type bool

can_go_previous ()

Returns

whether the player can move to the previous item in the playlist

Return type bool

can_pause ()

Returns whether the player can pause

Return type bool

can_play ()

Returns whether the player can play

Return type bool

can_quit ()

Returns whether the player can quit or not

Return type bool

can_raise ()

Returns whether the player can raise the display window atop of all other windows

Return type bool

can_seek ()

Returns whether the player can seek

Return type bool

can_set_fullscreen ()

Returns whether the player can go fullscreen

Return type bool

duration ()

Returns duration in seconds

Return type float

fullscreen ()

Returns whether the player is fullscreen or not

Return type bool

get_filename()

Returns source currently playing

Return type str

Deprecated since version 0.2.0: Use: *get_source()* instead.

get_source()

Get the source URI of the currently playing media

Returns source currently playing

Return type str

has_track_list()

Returns whether the player has a track list or not

Return type bool

height()

Returns video height in px

Return type int

hide_subtitles()

Hide subtitles

hide_video()

Hides the video overlays

identity()

Returns Returns *omxplayer*, the name of the player

Return type str

is_playing()

Returns Whether the player is playing

Return type bool

list_audio()

Returns

A list of all known audio streams, each item is in the format:

<index>:<language>:<name>:<codec>:<active>

Return type [str]

list_subtitles()

Returns

A list of all known subtitles, each item is in the format: <index>:<language>:<name>:<codec>:<act

Return type [str]

list_video()

Returns

A list of all known video streams, each item is in the format:

<index>:<language>:<name>:<codec>:<active>

Return type [str]

load (*source*, *pause=False*)

Loads a new source (as a file) from *source* (a file path or URL) by killing the current omxplayer process and forking a new one.

Parameters **source** (*string*) – Path to the file to play or URL

maximum_rate ()

Returns maximum playback rate (as proportion of normal rate)

Return type float

metadata ()

Returns containing track information ('URI', 'length')

Return type dict

Examples

```
>>> player.metadata()
{
  'mpris:length': 19691000,
  'xesam:url': 'file:///home/name/path/to/media/file.mp4'
}
```

minimum_rate ()

Returns minimum playback rate (as proportion of normal rate)

Return type float

mute ()

Mute audio. If already muted, then this does not do anything

next ()

Skip to the next chapter

Returns Whether the player skipped to the next chapter

Return type bool

pause ()

Pause playback

pauseEvent = None

Event called on pause callback (player)

play ()

Play the video asynchronously returning control immediately to the calling code

playEvent = None

Event called on play callback (player)

play_pause ()

Pause playback if currently playing, otherwise start playing if currently paused.

play_sync ()

Play the video and block whilst the video is playing

playback_status ()

Returns one of ("Playing" | "Paused" | "Stopped")

Return type str

position()

Returns position in seconds

Return type int

positionEvent = None

Event called on setting position callback(*player*, *absolute_position*)

previous()

Skip to the previous chapter

Returns Whether the player skipped to the previous chapter

Return type bool

quit()

Quit the player, blocking until the process has died

rate()

Returns playback rate, 1 is the normal rate, 0.5 would be half speed and 2 would be double speed.

Return type float

seek(*relative_position*)

Seek the video by *relative_position* seconds

Parameters **relative_position** (*float*) – The position in seconds to seek to.

seekEvent = None

Event called on seek callback(*player*, *relative_position*)

select_audio(*index*)

Select audio stream specified by the index of the stream in *list_audio*

Parameters **index** (*int*) – index of audio stream returned by *list_audio*

select_subtitle(*index*)

Enable a subtitle specified by the index it is listed in *list_subtitles*

Parameters **index** (*int*) – index of subtitle listing returned by *list_subtitles*

set_alpha(*alpha*)

Set the transparency of the video overlay

Parameters **alpha** (*float*) – The transparency (0..255)

set_aspect_mode(*mode*)

Set the aspect mode of the video

Parameters **mode** (*str*) – One of (“letterbox” | “fill” | “stretch”)

set_position(*position*)

Set the video to playback position to *position* seconds from the start of the video

Parameters **position** (*float*) – The position in seconds.

set_rate(*rate*)

Set the playback rate of the video as a multiple of the default playback speed

Examples

```
>>> player.set_rate(2)
# Will play twice as fast as normal speed
>>> player.set_rate(0.5)
# Will play half speed
```

set_video_crop (*x1*, *y1*, *x2*, *y2*)

Parameters

- **x1** (*int*) – Top left x coordinate (px)
- **y1** (*int*) – Top left y coordinate (px)
- **x2** (*int*) – Bottom right x coordinate (px)
- **y2** (*int*) – Bottom right y coordinate (px)

set_video_pos (*x1*, *y1*, *x2*, *y2*)

Set the video position on the screen

Parameters

- **x1** (*int*) – Top left x coordinate (px)
- **y1** (*int*) – Top left y coordinate (px)
- **x2** (*int*) – Bottom right x coordinate (px)
- **y2** (*int*) – Bottom right y coordinate (px)

set_volume (*volume*)

Parameters **float** – volume in millibels

show_subtitles ()

Shows subtitles after *hide_subtitles*

show_video ()

Shows the video (to undo a *hide_video*)

stop ()

Stop the player, causing it to quit

stopEvent = None

Event called on stop callback (*player*)

supported_uri_schemes ()

Returns list of supported URI schemes

Return type str

Examples

```
>>> player.supported_uri_schemes()
["file", "http", "rtsp", "rtmp"]
```

unmute ()

Unmutes the video. If already unmuted, then this does not do anything

video_pos ()

Returns

Video spatial position (x1, y1, x2, y2) where (x1, y1) is top left, and (x2, y2) is bottom right. All values in px.

Return type (int, int, int, int)

video_stream_count ()

Returns number of video streams

Return type int

volume ()

Returns current volume in millibels

Return type float

width ()

Returns video width in px

Return type int

exception omxplayer.player.OMXPlayerDeadError

Bases: Exception

3.1.2 omxplayer.bus_finder

class omxplayer.bus_finder.BusFinder (*path=None*)

Bases: object

find_address_file ()

Finds the OMXPlayer Dbus connection Assumes there is an alive OMXPlayer process. :return:

get_address ()

wait_for_dbus_address_to_be_written_to_file ()

wait_for_file ()

wait_for_path_to_exist ()

3.1.3 omxplayer.dbus_connection

class omxplayer.dbus_connection.DBusConnection (*bus_address, dbus_name=None*)

Bases: object

proxy

The proxy object by which one interacts with a dbus object, this makes communicating with a similar to that of communicating with a POJO.

root_interface

org.mpris.MediaPlayer2 interface proxy object

player_interface

org.mpris.MediaPlayer2.Player interface proxy object

exception omxplayer.dbus_connection.DBusConnectionError

Bases: Exception

Connection error raised when DBusConnection can't set up a connection

```
class omxplayer.dbus_connection.DbusObject (object_proxy, property_manager, inter-  
                                           face_name, methods, properties)  
    Bases: object
```

3.1.4 omxplayer.keys

```
omxplayer.keys.BLANK = 24  
omxplayer.keys.DECREASE_SPEED = 1  
omxplayer.keys.DECREASE_SUBTITLE_DELAY = 13  
omxplayer.keys.DECREASE_VOLUME = 17  
omxplayer.keys.EXIT = 15  
omxplayer.keys.FAST_FORWARD = 4  
omxplayer.keys.HIDE_SUBTITLES = 30  
omxplayer.keys.HIDE_VIDEO = 28  
omxplayer.keys.INCREASE_SPEED = 2  
omxplayer.keys.INCREASE_SUBTITLE_DELAY = 14  
omxplayer.keys.INCREASE_VOLUME = 18  
omxplayer.keys.MOVE_VIDEO = 27  
omxplayer.keys.NEXT_AUDIO = 7  
omxplayer.keys.NEXT_CHAPTER = 9  
omxplayer.keys.NEXT_SUBTITLE = 11  
omxplayer.keys.PAUSE = 16  
omxplayer.keys.PREVIOUS_AUDIO = 6  
omxplayer.keys.PREVIOUS_CHAPTER = 8  
omxplayer.keys.PREVIOUS_SUBTITLE = 10  
omxplayer.keys.REWIND = 3  
omxplayer.keys.SEEK_ABSOLUTE = 26  
omxplayer.keys.SEEK_BACK_LARGE = 21  
omxplayer.keys.SEEK_BACK_SMALL = 19  
omxplayer.keys.SEEK_FORWARD_LARGE = 22  
omxplayer.keys.SEEK_FORWARD_SMALL = 20  
omxplayer.keys.SEEK_RELATIVE = 25  
omxplayer.keys.SET_ALPHA = 32  
omxplayer.keys.SHOW_INFO = 5  
omxplayer.keys.SHOW_SUBTITLES = 31  
omxplayer.keys.STEP = 23  
omxplayer.keys.TOGGLE_SUBTITLE = 12  
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