

libbluray

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Chapter 1

Class Index

1.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

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Chapter 2

File Index

2.1 File List

Here is a list of all documented files with brief descriptions:

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Chapter 3

Class Documentation

3.1 `bd_chapter` Struct Reference

Public Attributes

- `uint32_t idx`
- `uint64_t start`
- `uint64_t duration`
- `uint64_t offset`

The documentation for this struct was generated from the following file:

- `src/libbluray/bluray.h`

3.2 `bd_clip` Struct Reference

Public Attributes

- `uint32_t pkt_count`
- `uint8_t video_stream_count`
- `uint8_t audio_stream_count`
- `uint8_t pg_stream_count`
- `uint8_t ig_stream_count`
- `uint8_t sec_audio_stream_count`
- `uint8_t sec_video_stream_count`
- `BLURAY_STREAM_INFO * video_streams`
- `BLURAY_STREAM_INFO * audio_streams`

- [BLURAY_STREAM_INFO](#) * **pg_streams**
- [BLURAY_STREAM_INFO](#) * **ig_streams**
- [BLURAY_STREAM_INFO](#) * **sec_audio_streams**
- [BLURAY_STREAM_INFO](#) * **sec_video_streams**

The documentation for this struct was generated from the following file:

- [src/libbluray/bluray.h](#)

3.3 BD_EVENT Struct Reference

Public Attributes

- **uint32_t event**
- **uint32_t param**

The documentation for this struct was generated from the following file:

- [src/libbluray/bluray.h](#)

3.4 bd_stream_info Struct Reference

Public Attributes

- **uint8_t coding_type**
- **uint8_t format**
- **uint8_t rate**
- **uint8_t char_code**
- **uint8_t lang** [4]
- **uint16_t pid**
- **uint8_t aspect**

The documentation for this struct was generated from the following file:

- [src/libbluray/bluray.h](#)

3.5 bd_title_info Struct Reference

Public Attributes

- uint32_t **idx**
- uint32_t **playlist**
- uint64_t **duration**
- uint32_t **clip_count**
- uint8_t **angle_count**
- uint32_t **chapter_count**
- [BLURAY_CLIP_INFO](#) * **clips**
- [BLURAY_TITLE_CHAPTER](#) * **chapters**

The documentation for this struct was generated from the following file:

- [src/libbluray/bluray.h](#)

3.6 BLURAY_DISC_INFO Struct Reference

Public Attributes

- uint8_t **bluray_detected**
- uint8_t **first_play_supported**
- uint8_t **top_menu_supported**
- uint32_t **num_hdmv_titles**
- uint32_t **num_bdj_titles**
- uint32_t **num_unsupported_titles**
- uint8_t **aacs_detected**
- uint8_t **libaacs_detected**
- uint8_t **aacs_handled**
- uint8_t **bdplus_detected**
- uint8_t **libbdplus_detected**
- uint8_t **bdplus_handled**

The documentation for this struct was generated from the following file:

- [src/libbluray/bluray.h](#)

Chapter 4

File Documentation

4.1 src/libbluray/bluray.h File Reference

```
#include <stdint.h>
```

Classes

- struct [bd_stream_info](#)
- struct [bd_clip](#)
- struct [bd_chapter](#)
- struct [bd_title_info](#)
- struct [BLURAY_DISC_INFO](#)
- struct [BD_EVENT](#)

Defines

- #define [TITLES_ALL](#) 0
- #define [TITLES_FILTER_DUP_TITLE](#) 0x01
- #define [TITLES_FILTER_DUP_CLIP](#) 0x02
- #define [TITLES_RELEVANT](#) (TITLES_FILTER_DUP_TITLE | TITLES_FILTER_DUP_CLIP)

Typedefs

- typedef struct bluray [BLURAY](#)
- typedef struct [bd_stream_info](#) [BLURAY_STREAM_INFO](#)
- typedef struct [bd_clip](#) [BLURAY_CLIP_INFO](#)

- typedef struct [bd_chapter](#) **BLURAY_TITLE_CHAPTER**
- typedef struct [bd_title_info](#) **BLURAY_TITLE_INFO**
- typedef void(* **bd_overlay_proc_f**)(void *, const struct bd_overlay_s *const)

Enumerations

- enum **bd_stream_type_e** {
BLURAY_STREAM_TYPE_VIDEO_MPEG1 = 0x01, **BLURAY_STREAM_TYPE_VIDEO_MPEG2** = 0x02, **BLURAY_STREAM_TYPE_AUDIO_MPEG1** = 0x03, **BLURAY_STREAM_TYPE_AUDIO_MPEG2** = 0x04,
BLURAY_STREAM_TYPE_AUDIO_LPCM = 0x80, **BLURAY_STREAM_TYPE_AUDIO_AC3** = 0x81, **BLURAY_STREAM_TYPE_AUDIO_DTS** = 0x82, **BLURAY_STREAM_TYPE_AUDIO_TRUHD** = 0x83,
BLURAY_STREAM_TYPE_AUDIO_AC3PLUS = 0x84, **BLURAY_STREAM_TYPE_AUDIO_DTSHD** = 0x85, **BLURAY_STREAM_TYPE_AUDIO_DTSHD_MASTER** = 0x86, **BLURAY_STREAM_TYPE_VIDEO_VC1** = 0xea,
BLURAY_STREAM_TYPE_VIDEO_H264 = 0x1b, **BLURAY_STREAM_TYPE_SUB_PG** = 0x90, **BLURAY_STREAM_TYPE_SUB_IG** = 0x91, **BLURAY_STREAM_TYPE_SUB_TEXT** = 0x92 }
- enum **bd_video_format_e** {
BLURAY_VIDEO_FORMAT_480I = 1, **BLURAY_VIDEO_FORMAT_576I** = 2, **BLURAY_VIDEO_FORMAT_480P** = 3, **BLURAY_VIDEO_FORMAT_1080I** = 4,
BLURAY_VIDEO_FORMAT_720P = 5, **BLURAY_VIDEO_FORMAT_1080P** = 6, **BLURAY_VIDEO_FORMAT_576P** = 7 }
- enum **bd_video_rate_e** {
BLURAY_VIDEO_RATE_24000_1001 = 1, **BLURAY_VIDEO_RATE_24** = 2, **BLURAY_VIDEO_RATE_25** = 3, **BLURAY_VIDEO_RATE_30000_1001** = 4,
BLURAY_VIDEO_RATE_50 = 6, **BLURAY_VIDEO_RATE_60000_1001** = 7 }
- enum **bd_video_aspect_e** { **BLURAY_ASPECT_RATIO_4_3** = 2, **BLURAY_ASPECT_RATIO_16_9** = 3 }
- enum **bd_audio_format_e** { **BLURAY_AUDIO_FORMAT_MONO** = 1, **BLURAY_AUDIO_FORMAT_STEREO** = 3, **BLURAY_AUDIO_FORMAT_MULTI_CHAN** = 6, **BLURAY_AUDIO_FORMAT_COMBO** = 12 }

- enum **bd_audio_rate_e** {
BLURAY_AUDIO_RATE_48 = 1, **BLURAY_AUDIO_RATE_96** = 4,
BLURAY_AUDIO_RATE_192 = 5, **BLURAY_AUDIO_RATE_192_-COMBO** = 12,
BLURAY_AUDIO_RATE_96_COMBO = 14 }
- enum **bd_char_code_e** {
BLURAY_TEXT_CHAR_CODE_UTF8 = 0x01, **BLURAY_TEXT_CHAR_CODE_UTF16BE** = 0x02, **BLURAY_TEXT_CHAR_CODE_SHIFT_JIS** = 0x03, **BLURAY_TEXT_CHAR_CODE_EUC_KR** = 0x04,
BLURAY_TEXT_CHAR_CODE_GB18030_20001 = 0x05, **BLURAY_TEXT_CHAR_CODE_CN_GB** = 0x06, **BLURAY_TEXT_CHAR_CODE_BIG5** = 0x07 }
- enum **bd_player_setting** {
BLURAY_PLAYER_SETTING_PARENTAL = 13, **BLURAY_PLAYER_SETTING_AUDIO_CAP** = 15, **BLURAY_PLAYER_SETTING_AUDIO_LANG** = 16, **BLURAY_PLAYER_SETTING_PG_LANG** = 17,
BLURAY_PLAYER_SETTING_MENU_LANG = 18, **BLURAY_PLAYER_SETTING_COUNTRY_CODE** = 19, **BLURAY_PLAYER_SETTING_REGION_CODE** = 20, **BLURAY_PLAYER_SETTING_VIDEO_CAP** = 29,
BLURAY_PLAYER_SETTING_TEXT_CAP = 30, **BLURAY_PLAYER_SETTING_PLAYER_PROFILE** = 31 }
- enum **bd_event_e** {
BD_EVENT_NONE = 0, **BD_EVENT_ERROR**, **BD_EVENT_ANGLE**, **BD_EVENT_TITLE**,
BD_EVENT_PLAYLIST, **BD_EVENT_PLAYITEM**, **BD_EVENT_CHAPTER**, **BD_EVENT_AUDIO_STREAM**,
BD_EVENT_IG_STREAM, **BD_EVENT_PG_TEXTST_STREAM**,
BD_EVENT_PIP_PG_TEXTST_STREAM, **BD_EVENT_SECONDARY_AUDIO_STREAM**,
BD_EVENT_SECONDARY_VIDEO_STREAM, **BD_EVENT_PG_TEXTST**, **BD_EVENT_PIP_PG_TEXTST**, **BD_EVENT_SECONDARY_AUDIO**,
BD_EVENT_SECONDARY_VIDEO, **BD_EVENT_SECONDARY_VIDEO_SIZE**, **BD_EVENT_MENU_PAGE_ID**, **BD_EVENT_SELECTED_BUTTON_ID**,
BD_EVENT_POPUP_OFF, **BD_EVENT_ENABLE_BUTTON**, **BD_EVENT_DISABLE_BUTTON**, **BD_EVENT_STILL** }

Functions

- `uint32_t bd_get_titles` (BLURAY *bd, uint8_t flags)
- `BLURAY_TITLE_INFO * bd_get_title_info` (BLURAY *bd, uint32_t title_idx)
- `BLURAY_TITLE_INFO * bd_get_playlist_info` (BLURAY *bd, uint32_t playlist)
- `void bd_free_title_info` (BLURAY_TITLE_INFO *title_info)
- `BLURAY * bd_open` (const char *device_path, const char *keyfile_path)
- `void bd_close` (BLURAY *bd)
- `int64_t bd_seek` (BLURAY *bd, uint64_t pos)
- `int64_t bd_seek_time` (BLURAY *bd, uint64_t tick)
- `int bd_read` (BLURAY *bd, unsigned char *buf, int len)
- `int64_t bd_seek_chapter` (BLURAY *bd, unsigned chapter)
- `int64_t bd_chapter_pos` (BLURAY *bd, unsigned chapter)
- `uint32_t bd_get_current_chapter` (BLURAY *bd)
- `int64_t bd_seek_mark` (BLURAY *bd, unsigned mark)
- `int bd_select_playlist` (BLURAY *bd, uint32_t playlist)
- `int bd_select_title` (BLURAY *bd, uint32_t title)
- `int bd_select_angle` (BLURAY *bd, unsigned angle)
- `void bd_seamless_angle_change` (BLURAY *bd, unsigned angle)
- `uint64_t bd_get_title_size` (BLURAY *bd)
- `uint32_t bd_get_current_title` (BLURAY *bd)
- `unsigned bd_get_current_angle` (BLURAY *bd)
- `uint64_t bd_tell` (BLURAY *bd)
- `uint64_t bd_tell_time` (BLURAY *bd)
- `const BLURAY_DISC_INFO * bd_get_disc_info` (BLURAY *)
- `int bd_set_player_setting` (BLURAY *bd, uint32_t idx, uint32_t value)
- `int bd_set_player_setting_str` (BLURAY *bd, uint32_t idx, const char *s)
- `int bd_start_bdj` (BLURAY *bd, const char *start_object)
- `void bd_stop_bdj` (BLURAY *bd)
- `int bd_play` (BLURAY *bd)
- `int bd_read_ext` (BLURAY *bd, unsigned char *buf, int len, `BD_EVENT` *event)
- `int bd_get_event` (BLURAY *bd, `BD_EVENT` *event)
- `int bd_play_title` (BLURAY *bd, unsigned title)
- `int bd_menu_call` (BLURAY *bd)
- `void bd_register_overlay_proc` (BLURAY *bd, void *handle, bd_overlay_proc_f func)
- `void bd_user_input` (BLURAY *bd, int64_t pts, uint32_t key)

4.1.1 Detailed Description

external API header

4.1.2 Define Documentation

4.1.2.1 `#define TITLES_ALL 0`

all titles.

4.1.2.2 `#define TITLES_FILTER_DUP_CLIP 0x02`

remove titles that have duplicate clips.

4.1.2.3 `#define TITLES_FILTER_DUP_TITLE 0x01`

remove duplicate titles.

4.1.2.4 `#define TITLES_RELEVANT (TITLES_FILTER_DUP_TITLE | TITLES_FILTER_DUP_CLIP)`

remove duplicate titles and clips

4.1.3 Function Documentation

4.1.3.1 `int64_t bd_chapter_pos (BLURAY * bd, unsigned chapter)`

Find the byte position of a chapter

Parameters

bd BLURAY object

chapter chapter to find position of

Returns

seek position of chapter start

4.1.3.2 `void bd_close (BLURAY * bd)`

Free libbluray objects

Parameters

bd BLURAY object

4.1.3.3 void bd_free_title_info (BLURAY_TITLE_INFO * *title_info*)

Free BLURAY_TITLE_INFO object

Parameters

title_info BLURAY_TITLE_INFO object

4.1.3.4 unsigned bd_get_current_angle (BLURAY * *bd*)

Return the current angle

Parameters

bd BLURAY object

Returns

current angle

4.1.3.5 uint32_t bd_get_current_chapter (BLURAY * *bd*)

Get the current chapter

Parameters

bd BLURAY object

Returns

current chapter

4.1.3.6 uint32_t bd_get_current_title (BLURAY * *bd*)

Returns the current title index

Parameters

bd BLURAY object

Returns

current title index

4.1.3.7 BLURAY_TITLE_INFO* bd_get_playlist_info (BLURAY * *bd*, uint32_t *playlist*)

Get information about a playlist

Parameters

bd BLURAY object
playlist playlist number

Returns

allocated BLURAY_TITLE_INFO object, NULL on error

4.1.3.8 BLURAY_TITLE_INFO* bd_get_title_info (BLURAY * *bd*, uint32_t *title_idx*)

Get information about a title

Parameters

bd BLURAY object
title_idx title index number

Returns

allocated BLURAY_TITLE_INFO object, NULL on error

4.1.3.9 uint64_t bd_get_title_size (BLURAY * *bd*)

Returns file size in bytes of currently selected title, 0 in no title selected

Parameters

bd BLURAY object

Returns

file size in bytes of currently selected title, 0 if no title selected

4.1.3.10 `uint32_t bd_get_titles (BLURAY * bd, uint8_t flags)`

This must be called after `bd_open()` and before `bd_select_title()`. Populates the title list in BLURAY. Filtering of the returned list is controled through title flags

Parameters

bd BLURAY object

flags title flags

Returns

number of titles found

4.1.3.11 `BLURAY* bd_open (const char * device_path, const char * keyfile_path)`

Initializes libbluray objects

Parameters

device_path path to mounted Blu-ray disc

keyfile_path path to KEYDB.cfg (may be NULL)

Returns

allocated BLURAY object, NULL if error

4.1.3.12 `int bd_read (BLURAY * bd, unsigned char * buf, int len)`

Read from currently selected title file, decrypt if possible

Parameters

bd BLURAY object

buf buffer to read data into

len size of data to be read

Returns

size of data read, -1 if error

4.1.3.13 void bd_seamless_angle_change (BLURAY * *bd*, unsigned *angle*)

Initiate seamless angle change

Parameters

bd BLURAY object

angle angle to change to

4.1.3.14 int64_t bd_seek (BLURAY * *bd*, uint64_t *pos*)

Seek to pos in currently selected title

Parameters

bd BLURAY object

pos position to seek to

Returns

current seek position

4.1.3.15 int64_t bd_seek_chapter (BLURAY * *bd*, unsigned *chapter*)

Seek to a chapter. First chapter is 0

Parameters

bd BLURAY object

chapter chapter to seek to

Returns

current seek position

4.1.3.16 int64_t bd_seek_mark (BLURAY * *bd*, unsigned *mark*)

Seek to a playmark. First mark is 0

Parameters

bd BLURAY object

mark playmark to seek to

Returns

current seek position

4.1.3.17 int64_t bd_seek_time (BLURAY * *bd*, uint64_t *tick*)

Seek to specific time in 90Khz ticks

Parameters

bd BLURAY object

tick tick count

Returns

current seek position

4.1.3.18 int bd_select_angle (BLURAY * *bd*, unsigned *angle*)

Set the angle to play

Parameters

bd BLURAY object

angle angle to play

Returns

1 on success, 0 if error

4.1.3.19 int bd_select_playlist (BLURAY * *bd*, uint32_t *playlist*)

Select a playlist

Parameters

bd BLURAY object

playlist playlist to select

Returns

1 on success, 0 if error

4.1.3.20 int bd_select_title (BLURAY * *bd*, uint32_t *title*)

Select the title from the list created by [bd_get_titles\(\)](#)

Parameters

bd BLURAY object

title title to select

Returns

1 on success, 0 if error

4.1.3.21 int bd_set_player_setting (BLURAY * *bd*, uint32_t *idx*, uint32_t *value*)

Update player setting registers

Parameters

bd BLURAY object

idx Player setting register

value New value for player setting register

Returns

1 on success, 0 on error (invalid setting)

4.1.3.22 uint64_t bd_tell (BLURAY * *bd*)

Return current pos

Parameters

bd BLURAY object

Returns

current seek position

4.1.3.23 `uint64_t bd_tell_time (BLURAY * bd)`

Return current time

Parameters

bd BLURAY object

Returns

current time

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