pyavb Documentation

Release 0.1.0

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Contents:

CHAPTER 1

Overview

pyavb is a python module for reading and writing Avid Bin Files (AVB) files.

CHAPTER 2

Installation

You can install pyavb via:

```
pip install pyavb
```

or clone the latest development git master:

```
git clone https://github.com/markreidvfx/pyavb
cd pyavb
python setup.py install
```

CHAPTER 3

Quickstart

Reading:

```
import avb

with avb.open("/path/to/file.avb") as f:

  for mob in f.content.mobs:
    print(mob.name)
    for track in mob.track:
        print(track.component)
```

3.1 avb package

3.1.1 Submodules

3.1.1.1 avb.attributes

Attributes

class avb.attributes.**Attributes**

Bases: avb.core.AVBPropertyData

clear() → None. Remove all items from od.

pop(*k*[, *d*]) → v, remove specified key and return the corresponding value. If key is not found, d is returned if given, otherwise KeyError is raised.

ParameterList

class avb.attributes.**ParameterList**
Bases: avb.core.AVBRefList

TimeCrumbList

class avb.attributes.**TimeCrumbList**
Bases: avb.core.AVBRefList

3.1.1.2 avb.bin

Bin

class avb.bin.**Bin**
Bases: avb.core.AVBObject

Properties:

name	type
large_bin	bool
view_setting	reference
uid	uint64
items	list
display_mask	int32
display_mode	int32
sifted	bool
sifted_settings	list
sort_columns	list
mac_font	int16
mac_font_size	int16
mac_image_scale	int16
home_rect	rect
background_color	color
forground_color	color
ql_image_scale	int16
attributes	reference
was_iconic	bool

BinFirst

class avb.bin.**BinFirst**
Bases: *avb.bin.Bin*

Properties:

name	type
large_bin	bool
view_setting	reference
uid	uint64
items	list
display_mask	int32
display_mode	int32
sifted	bool
sifted_settings	list
sort_columns	list
mac_font	int16
mac_font_size	int16
mac_image_scale	int16
home_rect	rect
background_color	color
forground_color	color
ql_image_scale	int16
attributes	reference
was_iconic	bool
unknown_s32	int32

BinItem

class avb.bin.**BinItem**(**args*, ***kwargs*)

Bases: avb.core.AVBObject

Properties:

name	type
mob	reference
x	int16
y	int16
keyframe	int32
user_placed	bool

BinViewSetting

class avb.bin.**BinViewSetting**

Bases: avb.bin.Setting

Properties:

name	type
name	string
kind	string
attr_count	int16
attr_type	int16
attributes	reference
columns	list
format_descriptors	list

SiftItem

class avb.bin.**SiftItem**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
method	int16
string	string
column	string

3.1.1.3 avb.components

ControlClip

class avb.components.**ControlClip**(*edit_rate=25*, *media_kind=None*)
Bases: avb.components.Clip

Properties:

name	type
left_bob	reference
right_bob	reference
media_kind_id	int16
edit_rate	fexp10
name	string
effect_id	string
attributes	reference
session_attrs	reference
precomputed	reference
param_list	reference
length	int32
interp_kind	int32
control_points	list

ControlPoint

class avb.components.**ControlPoint**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
offset	rational
time_scale	int32
value	bool
pp	list

Edgecode

class avb.components.**Edgecode**(*edit_rate=25*, *media_kind=None*)
Bases: avb.components.Clip

Properties:

name	type
left_bob	reference
right_bob	reference
media_kind_id	int16
edit_rate	fexp10
name	string
effect_id	string
attributes	reference
session_attrs	reference
precomputed	reference
param_list	reference
length	int32
header	bytes
film_kind	uint8
code_format	uint8
base_perf	uint16
start_ec	int32

Filler

class avb.components.**Filler**(*edit_rate=25*, *media_kind=None*)
Bases: avb.components.Clip

Properties:

name	type
left_bob	reference
right_bob	reference
media_kind_id	int16
edit_rate	fexp10
name	string
effect_id	string
attributes	reference
session_attrs	reference
precomputed	reference
param_list	reference
length	int32

ParamClip

class avb.components.**ParamClip**(*edit_rate=25*, *media_kind=None*)
Bases: avb.components.Clip

Properties:

name	type
left_bob	reference
right_bob	reference
media_kind_id	int16
edit_rate	fexp10
name	string
effect_id	string
attributes	reference
session_attrs	reference
precomputed	reference
param_list	reference
length	int32
interp_kind	int32
value_type	int16
extrap_kind	int32
control_points	list
fields	int32

ParamControlPoint

class avb.components.**ParamControlPoint**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
offset	rational
timescale	int32
value	number
pp	list

ParamPerPoint

class avb.components.**ParamPerPoint**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
code	int16
type	int16
value	number

PerPoint

class avb.components.**PerPoint**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
code	int16
value	rational

Sequence

class avb.components.**Sequence**(*edit_rate=25*, *media_kind=None*)
Bases: avb.components.Component

Properties:

name	type
left_bob	reference
right_bob	reference
media_kind_id	int16
edit_rate	fexp10
name	string
effect_id	string
attributes	reference
session_attrs	reference
precomputed	reference
param_list	reference
components	ref_list

SourceClip

class avb.components.**SourceClip**(*edit_rate=25*, *media_kind=None*)
Bases: avb.components.Clip

Properties:

name	type
left_bob	reference
right_bob	reference
media_kind_id	int16
edit_rate	fexp10
name	string
effect_id	string
attributes	reference
session_attrs	reference
precomputed	reference
param_list	reference
length	int32
track_id	int16
start_time	int32
mob_id	MobID

Timecode

class avb.components.**Timecode**(*edit_rate=25*, *media_kind=None*)
Bases: avb.components.Clip

Properties:

name	type
left_bob	reference
right_bob	reference
media_kind_id	int16
edit_rate	fexp10
name	string
effect_id	string
attributes	reference
session_attrs	reference
precomputed	reference
param_list	reference
length	int32
flags	int32
fps	int32
start	int32

TrackRef

class avb.components.**TrackRef**(*edit_rate=25*, *media_kind=None*)
Bases: avb.components.Clip

Properties:

name	type
left_bob	reference
right_bob	reference
media_kind_id	int16
edit_rate	fexp10
name	string
effect_id	string
attributes	reference
session_attrs	reference
precomputed	reference
param_list	reference
length	int32
relative_scope	int16
relative_track	int16

3.1.1.4 avb.essence

AIFCDescriptor

class avb.essence.**AIFCDescriptor**(**args*, ***kwargs*)
Bases: *avb.essence.MediaFileDescriptor*

Properties:

name	type
mob_kind	int8
locator	reference
intermediate	bool
physical_media	reference
uuid	UUID
wchar	bytes
attributes	reference
edit_rate	fexp10
length	int32
is_omfi	int16
data_offset	int32
summary	bytes
data_pos	int32

CDCIDescriptor

class avb.essence.**CDCIDescriptor**(**args*, ***kwargs*)

Bases: *avb.essence.DIDDescriptor*

Properties:

name	type
mob_kind	int8
locator	reference
intermediate	bool
physical_media	reference
uuid	UUID
wchar	bytes
attributes	reference
edit_rate	fexp10
length	int32
is_omfi	int16
data_offset	int32
stored_height	int32
stored_width	int32
sampled_height	int32
sampled_width	int32
sampled_x_offset	int32
sampled_y_offset	int32
display_height	int32
display_width	int32
display_x_offset	int32
display_y_offset	int32
frame_layout	int16
aspect_ratio	rational
line_map	list
alpha_transparency	int32

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Table 1 – continued from previous page

name	type
uniformness	bool
did_image_size	int32
next_did_desc	reference
compress_method	bytes
resolution_id	int32
image_alignment_factor	int32
frame_index_byte_order	int16
frame_sample_size	int32
first_frame_offset	int32
client_fill_start	int32
client_fill_end	int32
offset_to_rle_frame_index	int32
frame_start_offset	int32
valid_box	bounds_box
essence_box	bounds_box
source_box	bounds_box
framing_box	bounds_box
reformatting_option	int32
transfer_characteristic	UUID
color_primaries	UUID
coding_equations	UUID
essence_compression	UIDD
essence_element_size_kind	uint8
frame_checked_with_mapper	bool
horizontal_subsampling	uint32
vertical_subsampling	uint32
component_width	int32
color_sitting	int16
black_ref_level	uint32
white_ref_level	uint32
color_range	uint32
frame_index_offset	uint64
alpha_sampled_width	uint32
ignore_bw	uint32

DIDDescriptor

class avb.essence.**DIDDescriptor**(**args*, ***kwargs*)

Bases: *avb.essence.MediaFileDescriptor*

Properties:

name	type
mob_kind	int8
locator	reference
intermediate	bool
physical_media	reference
uuid	UUID
wchar	bytes

Continued on next page

Table 2 – continued from previous page

name	type
attributes	reference
edit_rate	fexp10
length	int32
is_omfi	int16
data_offset	int32
stored_height	int32
stored_width	int32
sampled_height	int32
sampled_width	int32
sampled_x_offset	int32
sampled_y_offset	int32
display_height	int32
display_width	int32
display_x_offset	int32
display_y_offset	int32
frame_layout	int16
aspect_ratio	rational
line_map	list
alpha_transparency	int32
uniformness	bool
did_image_size	int32
next_did_desc	reference
compress_method	bytes
resolution_id	int32
image_alignment_factor	int32
frame_index_byte_order	int16
frame_sample_size	int32
first_frame_offset	int32
client_fill_start	int32
client_fill_end	int32
offset_to_rle_frame_index	int32
frame_start_offset	int32
valid_box	bounds_box
essence_box	bounds_box
source_box	bounds_box
framing_box	bounds_box
reformatting_option	int32
transfer_characteristic	UUID
color_primaries	UUID
coding_equations	UUID
essence_compression	UIDD
essence_element_size_kind	uint8
frame_checked_with_mapper	bool

FilmDescriptor

class avb.essence.**FilmDescriptor**(**args*, ***kwargs*)

Bases: *avb.essence.MediaDescriptor*

Properties:

name	type
mob_kind	int8
locator	reference
intermediate	bool
physical_media	reference
uuid	UUID
wchar	bytes
attributes	reference

JPEGDescriptor

class avb.essence.**JPEGDescriptor**(**args*, ***kwargs*)

Bases: *avb.essence.CDCIDescriptor*

Properties:

name	type
mob_kind	int8
locator	reference
intermediate	bool
physical_media	reference
uuid	UUID
wchar	bytes
attributes	reference
edit_rate	fexp10
length	int32
is_omfi	int16
data_offset	int32
stored_height	int32
stored_width	int32
sampled_height	int32
sampled_width	int32
sampled_x_offset	int32
sampled_y_offset	int32
display_height	int32
display_width	int32
display_x_offset	int32
display_y_offset	int32
frame_layout	int16
aspect_ratio	rational
line_map	list
alpha_transparency	int32
uniformness	bool
did_image_size	int32
next_did_desc	reference
compress_method	bytes
resolution_id	int32
image_alignment_factor	int32
frame_index_byte_order	int16
frame_sample_size	int32

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Table 3 – continued from previous page

name	type
first_frame_offset	int32
client_fill_start	int32
client_fill_end	int32
offset_to_rle_frame_index	int32
frame_start_offset	int32
valid_box	bounds_box
essence_box	bounds_box
source_box	bounds_box
framing_box	bounds_box
reformatting_option	int32
transfer_characteristic	UUID
color_primaries	UUID
coding_equations	UUID
essence_compression	UIDD
essence_element_size_kind	uint8
frame_checked_with_mapper	bool
horizontal_subsampling	uint32
vertical_subsampling	uint32
component_width	int32
color_sitting	int16
black_ref_level	uint32
white_ref_level	uint32
color_range	uint32
frame_index_offset	uint64
alpha_sampled_width	uint32
ignore_bw	uint32
jpeg_table_id	int32
jpeg_frame_index_offset	uint64
quantization_tables	bytes
image_start_align	int32

MPGIDescriptor

class avb.essence.**MPGIDescriptor**(**args*, ***kwargs*)

Bases: *avb.essence.CDCIDescriptor*

Properties:

name	type
mob_kind	int8
locator	reference
intermediate	bool
physical_media	reference
uuid	UUID
wchar	bytes
attributes	reference
edit_rate	fexp10
length	int32
is_omfi	int16

Continued on next page

Table 4 – continued from previous page

name	type
data_offset	int32
stored_height	int32
stored_width	int32
sampled_height	int32
sampled_width	int32
sampled_x_offset	int32
sampled_y_offset	int32
display_height	int32
display_width	int32
display_x_offset	int32
display_y_offset	int32
frame_layout	int16
aspect_ratio	rational
line_map	list
alpha_transparency	int32
uniformness	bool
did_image_size	int32
next_did_desc	reference
compress_method	bytes
resolution_id	int32
image_alignment_factor	int32
frame_index_byte_order	int16
frame_sample_size	int32
first_frame_offset	int32
client_fill_start	int32
client_fill_end	int32
offset_to_rle_frame_index	int32
frame_start_offset	int32
valid_box	bounds_box
essence_box	bounds_box
source_box	bounds_box
framing_box	bounds_box
reformatting_option	int32
transfer_characteristic	UUID
color_primaries	UUID
coding_equations	UUID
essence_compression	UIDD
essence_element_size_kind	uint8
frame_checked_with_mapper	bool
horizontal_subsampling	uint32
vertical_subsampling	uint32
component_width	int32
color_sitting	int16
black_ref_level	uint32
white_ref_level	uint32
color_range	uint32
frame_index_offset	uint64
alpha_sampled_width	uint32
ignore_bw	uint32

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Table 4 – continued from previous page

name	type
mpeg_version	uint8
profile	uint8
gop_structure	uint8
stream_type	uint8
random_access	bool
leading_discard	bool
trailing_discard	bool
min_gop_length	uint16
max_gop_length	uint16
sequence_hdr	bytes

MediaDescriptor

class avb.essence.**MediaDescriptor**(**args*, ***kwargs*)

Bases: avb.core.AVBObject

Properties:

name	type
mob_kind	int8
locator	reference
intermediate	bool
physical_media	reference
uuid	UUID
wchar	bytes
attributes	reference

MediaFileDescriptor

class avb.essence.**MediaFileDescriptor**(**args*, ***kwargs*)

Bases: *avb.essence.MediaDescriptor*

Properties:

name	type
mob_kind	int8
locator	reference
intermediate	bool
physical_media	reference
uuid	UUID
wchar	bytes
attributes	reference
edit_rate	fexp10
length	int32
is_omfi	int16
data_offset	int32

MultiDescriptor

class avb.essence.**MultiDescriptor**(**args*, ***kwargs*)
Bases: *avb.essence.MediaFileDescriptor*

Properties:

name	type
mob_kind	int8
locator	reference
intermediate	bool
physical_media	reference
uuid	UUID
wchar	bytes
attributes	reference
edit_rate	fexp10
length	int32
is_omfi	int16
data_offset	int32
descriptors	ref_list

NagraDescriptor

class avb.essence.**NagraDescriptor**(**args*, ***kwargs*)
Bases: *avb.essence.MediaDescriptor*

Properties:

name	type
mob_kind	int8
locator	reference
intermediate	bool
physical_media	reference
uuid	UUID
wchar	bytes
attributes	reference

PCMADescriptor

class avb.essence.**PCMADescriptor**(**args*, ***kwargs*)
Bases: *avb.essence.MediaFileDescriptor*

Properties:

name	type
mob_kind	int8
locator	reference
intermediate	bool
physical_media	reference
uuid	UUID

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Table 5 – continued from previous page

name	type
wchar	bytes
attributes	reference
edit_rate	fexp10
length	int32
is_omfi	int16
data_offset	int32
channels	uint16
quantization_bits	uint16
sample_rate	fexp10
locked	bool
audio_ref_level	int16
electro_spatial_formulation	int32
dial_norm	uint16
coding_format	int32
block_align	int32
sequence_offset	uint16
average_bps	int32
has_peak_envelope_data	bool
peak_envelope_version	int32
peak_envelope_format	int32
points_per_peak_value	int32
peak_envelope_block_size	int32
peak_channel_count	int32
peak_frame_count	int32
peak_of_peaks_offset	uint64
peak_envelope_timestamp	int32
ebu_timestamp	int64
timecode_framerate	string

RGBADescriptor

class avb.essence.**RGBADescriptor**(**args*, ***kwargs*)

Bases: *avb.essence.DIDDescriptor*

Properties:

name	type
mob_kind	int8
locator	reference
intermediate	bool
physical_media	reference
uuid	UUID
wchar	bytes
attributes	reference
edit_rate	fexp10
length	int32
is_omfi	int16
data_offset	int32
stored_height	int32

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Table 6 – continued from previous page

name	type
stored_width	int32
sampled_height	int32
sampled_width	int32
sampled_x_offset	int32
sampled_y_offset	int32
display_height	int32
display_width	int32
display_x_offset	int32
display_y_offset	int32
frame_layout	int16
aspect_ratio	rational
line_map	list
alpha_transparency	int32
uniformness	bool
did_image_size	int32
next_did_desc	reference
compress_method	bytes
resolution_id	int32
image_alignment_factor	int32
frame_index_byte_order	int16
frame_sample_size	int32
first_frame_offset	int32
client_fill_start	int32
client_fill_end	int32
offset_to_rle_frame_index	int32
frame_start_offset	int32
valid_box	bounds_box
essence_box	bounds_box
source_box	bounds_box
framing_box	bounds_box
reformatting_option	int32
transfer_characteristic	UUID
color_primaries	UUID
coding_equations	UUID
essence_compression	UIDD
essence_element_size_kind	uint8
frame_checked_with_mapper	bool
pixel_layout	list
palette	list
frame_index_offset	uint64
has_comp_min_ref	bool
comp_min_ref	uint32
has_comp_max_ref	bool
comp_max_ref	uint32
alpha_min_ref	uint32
alpha_max_ref	uint32

TapeDescriptor

class avb.essence.**TapeDescriptor**(**args*, ***kwargs*)
Bases: *avb.essence.MediaDescriptor*

Properties:

name	type
mob_kind	int8
locator	reference
intermediate	bool
physical_media	reference
uuid	UUID
wchar	bytes
attributes	reference
cframe	int16

WaveDescriptor

class avb.essence.**WaveDescriptor**(**args*, ***kwargs*)
Bases: *avb.essence.MediaFileDescriptor*

Properties:

name	type
mob_kind	int8
locator	reference
intermediate	bool
physical_media	reference
uuid	UUID
wchar	bytes
attributes	reference
edit_rate	fexp10
length	int32
is_omfi	int16
data_offset	int32
summary	bytes

3.1.1.5 avb.misc

BOBPosition

class avb.misc.**BOBPosition**(**args*, ***kwargs*)
Bases: *avb.misc.Position*

Properties:

name	type
mob_id	MobID
sample_num	int32
length	int32
track_type	int32
track_index	int32

BinRef

class avb.misc.**BinRef**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
uid_high	int32
uid_low	int32
name	string
name_utf8	string

CFUserParam

class avb.misc.**CFUserParam**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
byte_order	uint16
uuid	UUID
data	bytes

ColorCorrectionEffect

class avb.misc.**ColorCorrectionEffect**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
color_correction	bytes

DIDPosition

class avb.misc.**DIDPosition**(**args*, ***kwargs*)
Bases: *avb.misc.BOBPosition*

Properties:

name	type
mob_id	MobID
sample_num	int32
length	int32
track_type	int32
track_index	int32
strip	int32
offset	uint64
byte_length	uint64
spos_invalid	bool

EffectParam

class avb.misc.**EffectParam**(**args*, ***kwargs*)

Bases: avb.core.AVBObject

Properties:

name	type
percent_time	int32
level	int32
pos_x	int32
floor_x	int32
ceil_x	int32
pos_y	int32
floor_y	int32
ceil_y	int32
scale_x	int32
scale_y	int32
crop_left	int32
crop_right	int32
crop_top	int32
crop_bottom	int32
box	list
box_xscale	bool
box_yscale	bool
box_xpos	bool
box_ypos	bool
border_width	int32
border_soft	int32
splill_gain2	int16
splill_gain	int16
splill_soft2	int16
splill_soft	int16
enable_key_flags	int8
colors	list
user_param	bytes
selected	bool

EffectParamList

class avb.misc.**EffectParamList**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
orig_length	int32
window_offset	int32
keyframe_size	int32
parameters	list

GraphicEffect

class avb.misc.**GraphicEffect**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
pict_data	bytes

MPGPosition

class avb.misc.**MPGPosition**(**args*, ***kwargs*)
Bases: *avb.misc.DIDPosition*

Properties:

name	type
mob_id	MobID
sample_num	int32
length	int32
track_type	int32
track_index	int32
strip	int32
offset	uint64
byte_length	uint64
spos_invalid	bool
trailing_discards	int16
need_seq_hdr	Boolean
leader_length	int16
fields	list

MSMLocator

class avb.misc.**MSMLocator**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
last_known_volume	string
domain_type	int32
mob_id	MobID
last_known_volume_utf8	string

MacFileLocator

class avb.misc.**MacFileLocator**(**args*, ***kwargs*)
Bases: avb.misc.FileLocator

Properties:

name	type
path	string
path_posix	string
path_utf8	string
path2_utf8	string

Marker

class avb.misc.**Marker**(**args*, ***kwargs*)
Bases: *avb.misc.MobRef*

Properties:

name	type
position	int32
mob_id	MobID
comp_offset	int32
attributes	reference
color	list
handled_codes	bool

MobRef

class avb.misc.**MobRef**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
position	int32
mob_id	MobID

ParameterItems

class avb.misc.**ParameterItems**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
uuid	UUID
value_type	int16
value	int32
name	string
enable	bool
control_track	reference
contribs_to_sig	bool

Position

class avb.misc.**Position**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
mob_id	MobID

ShapeList

class avb.misc.**ShapeList**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
shape_data	bytes

TrackerData

class avb.misc.**TrackerData**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
settings	bytes
clip_version	uint32
clips	ref_list
offset_tracking	uint32
smoothing	uint32
jitter_removal	uint32
filter_amount	double
clip5	reference
clip6	reference

TrackerDataSlot

class avb.misc.**TrackerDataSlot**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
tracker_data	ref_list
track_fg	bool

TrackerManager

class avb.misc.**TrackerManager**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
data_slots	reference
param_slots	reference

TrackerParameter

class avb.misc.**TrackerParameter**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
settings	bytes

TrackerParameterSlot

class avb.misc.**TrackerParameterSlot**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
settings	bytes
params	ref_list

URLLocator

class avb.misc.**URLLocator**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

WinFileLocator

class avb.misc.**WinFileLocator**(**args*, ***kwargs*)
Bases: avb.misc.FileLocator

Properties:

name	type
path	string
path_posix	string
path_utf8	string
path2_utf8	string

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ASPIPlugin

class avb.trackgroups.**ASPIPlugin**(*root*)
Bases: avb.core.AVBObject

Properties:

name	type
name	string
manufacturer_id	uint32
product_id	uint32
plugin_id	uint32
chunks	list

ASPIPluginChunk

class avb.trackgroups.**ASPIPluginChunk**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
version	int32
manufacturer_id	uint32
product_id	uint32
plugin_id	uint32
chunk_id	uint32
name	string
data	bytes

AudioSuitePluginEffect

class avb.trackgroups.**AudioSuitePluginEffect**(*edit_rate=25*, *media_kind=None*)

Bases: *avb.trackgroups.TrackEffect*

Properties:

name	type
left_bob	reference
right_bob	reference
media_kind_id	int16
edit_rate	fexp10
name	string
effect_id	string
attributes	reference
session_attrs	reference
precomputed	reference
param_list	reference
mc_mode	int8
length	int32
num_scalars	int32
tracks	list
left_length	int32
right_length	int32
info_version	int16
info_current	int32
info_smooth	int32
info_color_item	int16
info_quality	int16
info_is_reversed	int8
info_aspect_on	bool
keyframes	reference
info_force_software	bool
info_never_hardware	bool
trackman	reference
plugins	list
mob_id	MobID
mark_in	uint64
mark_out	uint64
tracks_to_affect	uint32
rendering_mode	int32

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name	type
padding_secs	int32
preset_path	bytes

CaptureMask

class avb.trackgroups.**CaptureMask**(*edit_rate=25*, *media_kind=None*)
Bases: avb.trackgroups.TimeWarp

Properties:

name	type
left_bob	reference
right_bob	reference
media_kind_id	int16
edit_rate	fexp10
name	string
effect_id	string
attributes	reference
session_attrs	reference
precomputed	reference
param_list	reference
mc_mode	int8
length	int32
num_scalars	int32
tracks	list
phase_offset	int32
is_double	bool
mask_bits	int32

Composition

class avb.trackgroups.**Composition**(*name='Mob'*, *mob_type='MasterMob'*)
Bases: *avb.trackgroups.TrackGroup*

Properties:

name	type
left_bob	reference
right_bob	reference
media_kind_id	int16
edit_rate	fexp10
name	string
effect_id	string
attributes	reference
session_attrs	reference
precomputed	reference
param_list	reference
mc_mode	int8
length	int32
num_scalars	int32
tracks	list
last_modified	int32
mob_type_id	int8
usage_code	int8
descriptor	reference
creation_time	int32
mob_id	MobID

EqualizerBand

class avb.trackgroups.**EqualizerBand**(**args*, ***kwargs*)

Bases: avb.core.AVBObject

Properties:

name	type
type	int32
freq	int32
gain	int32
q	int32
enable	bool

EqualizerMultiBand

class avb.trackgroups.**EqualizerMultiBand**(*edit_rate=25*, *media_kind=None*)

Bases: *avb.trackgroups.TrackEffect*

Properties:

name	type
left_bob	reference
right_bob	reference
media_kind_id	int16
edit_rate	fexp10
name	string

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name	type
effect_id	string
attributes	reference
session_attrs	reference
precomputed	reference
param_list	reference
mc_mode	int8
length	int32
num_scalars	int32
tracks	list
left_length	int32
right_length	int32
info_version	int16
info_current	int32
info_smooth	int32
info_color_item	int16
info_quality	int16
info_is_reversed	int8
info_aspect_on	bool
keyframes	reference
info_force_software	bool
info_never_hardware	bool
trackman	reference
bands	list
effect_enable	bool
filter_name	string

EssenceGroup

class avb.trackgroups.**EssenceGroup**(*edit_rate=25*, *media_kind=None*)

Bases: *avb.trackgroups.TrackGroup*

Properties:

name	type
left_bob	reference
right_bob	reference
media_kind_id	int16
edit_rate	fexp10
name	string
effect_id	string
attributes	reference
session_attrs	reference
precomputed	reference
param_list	reference
mc_mode	int8
length	int32
num_scalars	int32
tracks	list
rep_set_type	int32

MotionEffect

class avb.trackgroups.**MotionEffect**(*edit_rate=25*, *media_kind=None*)
Bases: avb.trackgroups.TimeWarp

Properties:

name	type
left_bob	reference
right_bob	reference
media_kind_id	int16
edit_rate	fexp10
name	string
effect_id	string
attributes	reference
session_attrs	reference
precomputed	reference
param_list	reference
mc_mode	int8
length	int32
num_scalars	int32
tracks	list
phase_offset	int32
speed_ratio	rational
offset_adjust	double
source_param_list	reference
new_source_calculation	bool

PanVolumeEffect

class avb.trackgroups.**PanVolumeEffect**(*edit_rate=25*, *media_kind=None*)
Bases: *avb.trackgroups.TrackEffect*

Properties:

name	type
left_bob	reference
right_bob	reference
media_kind_id	int16
edit_rate	fexp10
name	string
effect_id	string
attributes	reference
session_attrs	reference
precomputed	reference
param_list	reference
mc_mode	int8
length	int32
num_scalars	int32
tracks	list
left_length	int32

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name	type
right_length	int32
info_version	int16
info_current	int32
info_smooth	int32
info_color_item	int16
info_quality	int16
info_is_reversed	int8
info_aspect_on	bool
keyframes	reference
info_force_software	bool
info_never_hardware	bool
trackman	reference
level	int32
pan	int32
suppress_validation	bool
level_set	bool
pan_set	bool
supports_seperate_gain	int32
is_trim_gain_effect	int32

Repeat

class avb.trackgroups.**Repeat**(*edit_rate=25*, *media_kind=None*)
Bases: avb.trackgroups.TimeWarp

Properties:

name	type
left_bob	reference
right_bob	reference
media_kind_id	int16
edit_rate	fexp10
name	string
effect_id	string
attributes	reference
session_attrs	reference
precomputed	reference
param_list	reference
mc_mode	int8
length	int32
num_scalars	int32
tracks	list
phase_offset	int32

Selector

class avb.trackgroups.**Selector**(*edit_rate=25*, *media_kind=None*)
Bases: *avb.trackgroups.TrackGroup*

Properties:

name	type
left_bob	reference
right_bob	reference
media_kind_id	int16
edit_rate	fexp10
name	string
effect_id	string
attributes	reference
session_attrs	reference
precomputed	reference
param_list	reference
mc_mode	int8
length	int32
num_scalars	int32
tracks	list
is_ganged	bool
selected	int16

StrobeEffect

class avb.trackgroups.**StrobeEffect**(*edit_rate=25*, *media_kind=None*)
Bases: avb.trackgroups.TimeWarp

Properties:

name	type
left_bob	reference
right_bob	reference
media_kind_id	int16
edit_rate	fexp10
name	string
effect_id	string
attributes	reference
session_attrs	reference
precomputed	reference
param_list	reference
mc_mode	int8
length	int32
num_scalars	int32
tracks	list
phase_offset	int32
strobe_value	int32

Track

class avb.trackgroups.**Track**(**args*, ***kwargs*)
Bases: avb.core.AVBObject

Properties:

name	type
index	int16
attributes	reference
session_attr	reference
component	reference
filler_proxy	reference
bob_data	reference
control_code	int16
control_sub_code	int16
start_pos	int32
read_only	bool
lock_number	int16

TrackEffect

class avb.trackgroups.**TrackEffect**(*edit_rate=25*, *media_kind=None*)

Bases: *avb.trackgroups.TrackGroup*

Properties:

name	type
left_bob	reference
right_bob	reference
media_kind_id	int16
edit_rate	fexp10
name	string
effect_id	string
attributes	reference
session_attrs	reference
precomputed	reference
param_list	reference
mc_mode	int8
length	int32
num_scalars	int32
tracks	list
left_length	int32
right_length	int32
info_version	int16
info_current	int32
info_smooth	int32
info_color_item	int16
info_quality	int16
info_is_reversed	int8
info_aspect_on	bool
keyframes	reference
info_force_software	bool
info_never_hardware	bool
trackman	reference

TrackGroup

class avb.trackgroups.**TrackGroup**(*edit_rate=25*, *media_kind=None*)
Bases: avb.components.Component

Properties:

name	type
left_bob	reference
right_bob	reference
media_kind_id	int16
edit_rate	fexp10
name	string
effect_id	string
attributes	reference
session_attrs	reference
precomputed	reference
param_list	reference
mc_mode	int8
length	int32
num_scalars	int32
tracks	list

TransitionEffect

class avb.trackgroups.**TransitionEffect**(*edit_rate=25*, *media_kind=None*)
Bases: *avb.trackgroups.TrackGroup*

Properties:

name	type
left_bob	reference
right_bob	reference
media_kind_id	int16
edit_rate	fexp10
name	string
effect_id	string
attributes	reference
session_attrs	reference
precomputed	reference
param_list	reference
mc_mode	int8
length	int32
num_scalars	int32
tracks	list
cutpoint	int32
left_length	int32
right_length	int32
info_version	int16
info_current	int32
info_smooth	int32
info_color_item	int16
info_quality	int16
info_is_reversed	int8
info_aspect_on	bool
keyframes	reference
info_force_software	bool
info_never_hardware	bool
trackman	reference

CHAPTER 4

Indices and tables

- genindex
- modindex
- search

CHAPTER 5

Further Reading

pyavb was initially started using these projects as reference

- AVBParser
- Media Decomposer

More datatypes and names have been discovered via this avid console command:

```
EnableBinXMLDump true
```

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