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Volume(ID)

base classes — [bpy_struct](#), [ID](#)

class bpy.types.**Volume**(ID)

Volume data-block for 3D volume grids

animation_data

Animation data for this data-block

TYPE:

[AnimData](#), (readonly)

display

Volume display settings for 3D viewport

TYPE:

[VolumeDisplay](#), (readonly)

filepath

Volume file used by this Volume data-block

TYPE:

string, default ‘’, (never None)

frame_duration

Number of frames of the sequence to use

TYPE:

int in [0, 1048574], default 0

frame_offset

Offset the number of the frame to use in the animation

TYPE:

int in [-inf, inf], default 0

frame_start

Global starting frame of the sequence, assuming first has a #1

TYPE:

int in [-1048574, 1048574], default 1

grids

3D volume grids

TYPE:

[VolumeGrids](#) [bpy_prop_collection](#) of [VolumeGrid](#), (readonly)

is_sequence

Whether the cache is separated in a series of files

TYPE:

boolean, default False

materials

TYPE:

`IDMaterials bpy_prop_collection` of `Material`, (readonly)

packed_file**TYPE:**

`PackedFile`, (readonly)

render

Volume render settings for 3D viewport

TYPE:

`VolumeRender`, (readonly)

sequence_mode

Sequence playback mode

- `CLIP` Clip – Hide frames outside the specified frame range.
- `EXTEND` Extend – Repeat the start frame before, and the end frame after the frame range.
- `REPEAT` Repeat – Cycle the frames in the sequence.
- `PING_PONG` Ping-Pong – Repeat the frames, reversing the playback direction every other cycle.

TYPE:

enum in ['CLIP', 'EXTEND', 'REPEAT', 'PING_PONG'], default 'CLIP'

velocity_grid

Name of the velocity field, or the base name if the velocity is split into multiple grids

TYPE:

string, default "", (never None)

velocity_scale

Factor to control the amount of motion blur

TYPE:

float in [0, inf], default 1.0

velocity_unit

Define how the velocity vectors are interpreted with regard to time, 'frame' means the delta time is 1 frame, 'second' means the delta time is 1 FPS

TYPE:

enum in [Velocity Unit Items](#), default 'FRAME'

velocity_x_grid

Name of the grid for the X axis component of the velocity field if it was split into multiple grids

TYPE:

string, default "", (readonly, never None)

velocity_y_grid

Name of the grid for the Y axis component of the velocity field if it was split into multiple grids

TYPE:

string, default "", (readonly, never None)

velocity_z_grid

Name of the grid for the Z axis component of the velocity field if it was split into multiple grids

TYPE:

string, default ‘’, (readonly, never None)

classmethod `bl_rna_get_subclass(id, default=None)`

PARAMETERS:

id (*str*) – The RNA type identifier.

RETURNS:

The RNA type or default when not found.

RETURN TYPE:

`bpy.types.Struct` subclass

classmethod `bl_rna_get_subclass_py(id, default=None)`

PARAMETERS:

id (*str*) – The RNA type identifier.

RETURNS:

The class or default when not found.

RETURN TYPE:

type

Inherited Properties

- `bpy_struct.id_data`
- `ID.name`
- `ID.name_full`
- `ID.id_type`
- `ID.session_uid`
- `ID.is_evaluated`
- `ID.original`
- `ID.users`
- `ID.use_fake_user`
- `ID.use_extra_user`
- `ID.is_embedded_data`
- `ID.is_missing`
- `ID.is_runtime_data`
- `ID.is_editable`
- `ID.tag`
- `ID.is_library_indirect`
- `ID.library`
- `ID.library_weak_reference`
- `ID.asset_data`
- `ID.override_library`
- `ID.preview`

Inherited Functions

- `bpy_struct.as_pointer`
- `bpy_struct.driver_add`
- `bpy_struct.driver_remove`
- `bpy_struct.get`
- `bpy_struct.id_properties_clear`
- `bpy_struct.id_properties_ensure`
- `bpy_struct.id_properties_ui`
- `bpy_struct.is_property_hidden`
- `bpy_struct.is_property_overridable_library`
- `bpy_struct.is_property_readonly`
- `bpy_struct.is_property_set`
- `bpy_struct.items`
- `bpy_struct.type_recast`
- `bpy_struct.values`
- `ID.rename`
- `ID.evaluated_get`
- `ID.copy`
- `ID.asset_mark`
- `ID.asset_clear`
- `ID.asset_generate_preview`
- `ID.override_create`
- `ID.override_hierarchy_create`
- `ID.user_clear`
- `ID.user remap`

- `bpy_struct.keyframe_delete`
- `bpy_struct.keyframe_insert`
- `bpy_struct.keys`
- `bpy_struct.path_from_id`
- `bpy_struct.path_resolve`
- `bpy_struct.pop`
- `bpy_struct.property_overridable_library_set`
- `bpy_struct.property_unset`
- `ID.make_local`
- `ID.user_of_id`
- `ID.animation_data_create`
- `ID.animation_data_clear`
- `ID.update_tag`
- `ID.preview_ensure`
- `ID.bl_rna_get_subclass`
- `ID.bl_rna_get_subclass_py`

References

- `bpy.context.volume` • `BlendDataVolumes.new`
- `BlendData.volumes` • `BlendDataVolumes.remove`