Curves(ID)

base classes — bpy_struct , ID

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

Hair data-block for hair curves

animation_data

Animation data for this data-block

TYPE:

AnimData , (readonly)

attributes

Geometry attributes

TYPE:

AttributeGroupCurves bpy_prop_collection of Attribute , (readonly)

color_attributes

Geometry color attributes

TYPE:

AttributeGroupCurves bpy_prop_collection of Attribute , (readonly)

curve_offset_data

TYPE:

bpy_prop_collection of IntAttributeValue , (readonly)

curves

All curves in the data-block

TYPE:

bpy_prop_collection of CurveSlice , (readonly)

materials

TYPE:

IDMaterials bpy_prop_collection of Material , (readonly)

normals

The curve normal value at each of the curve's control points

TYPE:

bpy_prop_collection of FloatVectorValueReadOnly , (readonly)

points

Control points of all curves

TYPE:

bpy_prop_collection of CurvePoint , (readonly)

position_data

TYPE:

bpy_prop_collection of FloatVectorAttributeValue , (readonly)

selection_domain

TYPE:

enum in Attribute Curves Domain Items, default 'POINT'

surface

Mesh object that the curves can be attached to

TYPE:

Object

surface_collision_distance

Distance to keep the curves away from the surface

TYPE:

float in [1.192e-07, inf], default 0.005

surface_uv_map

The name of the attribute on the surface mesh used to define the attachment of each curve

TYPE:

string, default '', (never None)

use_mirror_x

Enable symmetry in the X axis

TYPE:

boolean, default False

use_mirror_y

Enable symmetry in the Y axis

TYPE:

boolean, default False

use_mirror_z

Enable symmetry in the Z axis

TYPE:

boolean, default False

use_sculpt_collision

Enable collision with the surface while sculpting

TYPE:

boolean, default False

add_curves(sizes)

add_curves

PARAMETERS:

sizes (*int array of 1 items in [0, inf]*) – Sizes, The number of points in each curve

remove_curves(*, indices=(0,))

Remove all curves. If indices are provided, remove only the curves with the given indices.

PARAMETERS:

indices (*int array of 1 items in [0, inf], (optional)*) – Indices, The indices of the curves to remove

resize_curves(sizes, *, indices=(0,))

Resize all existing curves. If indices are provided, resize only the curves with the given indices. If the new size for a curve is smaller, the curve i trimmed. If the new size for a curve is larger, the new end values are default initialized.

PARAMETERS:

- **sizes** (*int array of 1 items in [1, inf]*) – Sizes, The number of points in each curve
- **indices** (*int array of 1 items in [0, inf], (optional)*) – Indices, The indices of the curves to resize

reorder_curves(new_indices)

Reorder the curves by the new indices.

PARAMETERS:

new_indices (*int array of 1 items in [0, inf]*) – New indices, The new index for each of the curves

set_types(*, type='CATMULL_ROM', indices=(0,))

Set the curve type. If indices are provided, set only the types with the given curve indices.

PARAMETERS:

- **type** (enum in Curves Type Items, (optional)) – Type
- **indices** (*int array of 1 items in [0, inf], (optional)*) – Indices, The indices of the curves to resize

unit_test_compare(*, curves=None, threshold=7.1526e-06)

unit_test_compare

PARAMETERS:

- **curves** (`Curves` , (optional)) – Curves to compare to
- **threshold** (*float in [0, inf], (optional)*) – Threshold, Comparison tolerance threshold

RETURNS:

Return value, String description of result of comparison

RETURN TYPE:

string, (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.is_missing`

- 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.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
- 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
- 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

- BlendData.hair_curves
- BlendDataHairCurves.new
- BlendDataHairCurves.remove
- Curves.unit_test_compare