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CurveMap(bpy_struct)

base class — bpy_struct

class bpy.types.**CurveMap(bpy_struct)**

Curve in a curve mapping

points

TYPE:

CurveMapPoints bpy_prop_collection of CurveMapPoint, (readonly)

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

Inherited Functions

- bpy_struct.as_pointer
- bpy_struct.driver_add
- bpy_struct.driver_remove
- bpy_struct.get
- bpy_struct.id_properties_clear
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- bpy_struct.values

References

- `CurveMapping.curves` • `CurveMapping.evaluate`

FluidModifier(Modifier)

base classes — bpy_struct , Modifier

class bpy.types.**FluidModifier(Modifier)**

Fluid simulation modifier

domain_settings

TYPE:

FluidDomainSettings , (readonly)

effector_settings

TYPE:

FluidEffectorSettings , (readonly)

flow_settings

TYPE:

FluidFlowSettings , (readonly)

fluid_type

- NONE None.
- DOMAIN Domain – Container of the fluid simulation.
- FLOW Flow – Add or remove fluid to a domain object.
- EFFECTOR Effector – Deflect fluids and influence the fluid flow.

TYPE:

enum in [‘NONE’, ‘DOMAIN’, ‘FLOW’, ‘EFFECTOR’], default ‘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
- Modifier.name
- Modifier.type
- Modifier.show_expanded
- Modifier.is_active
- Modifier.use_pin_to_last

- Modifier.show_viewport
- Modifier.show_render
- Modifier.show_in_editmode
- Modifier.show_on_cage
- Modifier.is_override_data
- Modifier.use_apply_on_spline
- Modifier.execution_time
- Modifier.persistent_uid

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
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- bpy_struct.type_recast
- bpy_struct.values
- Modifier.bl_rna_get_subclass
- Modifier.bl_rna_get_subclass_py

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FModifier(bpy_struct)

base class — bpy_struct

subclasses — FModifierCycles, FModifierEnvelope, FModifierFunctionGenerator, FModifierGenerator, FModifierLimits, FModifierNoise, FModifierStepped

class bpy.types.**FModifier(bpy_struct)**

Modifier for values of F-Curve

active

F-Curve modifier will show settings in the editor

TYPE:

boolean, default False

blend_in

Number of frames from start frame for influence to take effect

TYPE:

float in [-inf, inf], default 0.0

blend_out

Number of frames from end frame for influence to fade out

TYPE:

float in [-inf, inf], default 0.0

frame_end

Frame that modifier's influence ends (if Restrict Frame Range is in use)

TYPE:

float in [-inf, inf], default 0.0

frame_start

Frame that modifier's influence starts (if Restrict Frame Range is in use)

TYPE:

float in [-inf, inf], default 0.0

influence

Amount of influence F-Curve Modifier will have when not fading in/out

TYPE:

float in [0, 1], default 1.0

is_valid

F-Curve Modifier has invalid settings and will not be evaluated

TYPE:

boolean, default False, (readonly)

mute

Enable F-Curve modifier evaluation

TYPE:

boolean, default False

boolean, default False

name

F-Curve Modifier name

TYPE:

string, default “”, (never None)

show_expanded

F-Curve Modifier’s panel is expanded in UI

TYPE:

boolean, default False

type

F-Curve Modifier Type

TYPE:

enum in Fmodifier Type Items, default ‘NULL’, (readonly)

use_influence

F-Curve Modifier’s effects will be tempered by a default factor

TYPE:

boolean, default False

use_restricted_range

F-Curve Modifier is only applied for the specified frame range to help mask off effects in order to chain them

TYPE:

boolean, default False

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`

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

References

- FCurve.modifiers
- FCurveModifiers.active
- FCurveModifiers.new
- FCurveModifiers.remove
- NlaStrip.modifiers

FModifierCycles(FModifier)

base classes — bpy_struct, FModifier

class bpy.types.**FModifierCycles(FModifier)**

Repeat the values of the modified F-Curve

cycles_after

Maximum number of cycles to allow after last keyframe (0 = infinite)

TYPE:

int in [-32768, 32767], default 0

cycles_before

Maximum number of cycles to allow before first keyframe (0 = infinite)

TYPE:

int in [-32768, 32767], default 0

mode_after

Cycling mode to use after last keyframe

- NONE No Cycles – Don't do anything.
- REPEAT Repeat Motion – Repeat keyframe range as-is.
- REPEAT_OFFSET Repeat with Offset – Repeat keyframe range, but with offset based on gradient between start and end values.
- MIRROR Repeat Mirrored – Alternate between forward and reverse playback of keyframe range.

TYPE:

enum in ['NONE', 'REPEAT', 'REPEAT_OFFSET', 'MIRROR'], default 'NONE'

mode_before

Cycling mode to use before first keyframe

- NONE No Cycles – Don't do anything.
- REPEAT Repeat Motion – Repeat keyframe range as-is.
- REPEAT_OFFSET Repeat with Offset – Repeat keyframe range, but with offset based on gradient between start and end values.
- MIRROR Repeat Mirrored – Alternate between forward and reverse playback of keyframe range.

TYPE:

enum in ['NONE', 'REPEAT', 'REPEAT_OFFSET', 'MIRROR'], default '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
- FModifier.name
- FModifier.type
- FModifier.show_expanded
- FModifier.mute
- FModifier.is_valid
- FModifier.active
- FModifier.use_restricted_range
- FModifier.frame_start
- FModifier.frame_end
- FModifier.blend_in
- FModifier.blend_out
- FModifier.use_influence
- FModifier.influence

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
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- 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
- FModifier.bl_rna_get_subclass
- FModifier.bl_rna_get_subclass_py

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FModifierEnvelope(FModifier)

base classes — bpy_struct, FModifier

class bpy.types.**FModifierEnvelope(FModifier)**

Scale the values of the modified F-Curve

control_points

Control points defining the shape of the envelope

TYPE:

FModifierEnvelopeControlPoints bpy_prop_collection of FModifierEnvelopeControlPoint (readonly)

default_max

Upper distance from Reference Value for 1:1 default influence

TYPE:

float in [-inf, inf], default 0.0

default_min

Lower distance from Reference Value for 1:1 default influence

TYPE:

float in [-inf, inf], default 0.0

reference_value

Value that envelope's influence is centered around / based on

TYPE:

float in [-inf, inf], default 0.0

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
- FModifier.name
- FModifier.use_restricted_range
- FModifier.frame_start

- FModifier.name
- FModifier.type
- FModifier.show_expanded
- FModifier.mute
- FModifier.is_valid
- FModifier.active
- FModifier.frame_start
- FModifier.frame_end
- FModifier.blend_in
- FModifier.blend_out
- FModifier.use_influence
- FModifier.influence

Inherited Functions

- bpy_struct.as_pointer
- bpy_struct.driver_add
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- 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
- FModifier.bl_rna_get_subclass
- FModifier.bl_rna_get_subclass_py

FModifierEnvelopeControlPoint(bpy_struct)

base class — bpy_struct

class bpy.types.**FModifierEnvelopeControlPoint(bpy_struct)**

Control point for envelope F-Modifier

frame

Frame this control-point occurs on

TYPE:

float in [-inf, inf], default 0.0

max

Upper bound of envelope at this control-point

TYPE:

float in [-inf, inf], default 0.0

min

Lower bound of envelope at this control-point

TYPE:

float in [-inf, inf], default 0.0

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

Inherited Functions

- bpy_struct.as_pointer
- bpy_struct.driver_add
- bpy_struct.driver_remove
- bpy_struct.items
- bpy_struct.keyframe_delete
- bpy_struct.keyframe_insert

- 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.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

References

- FModifierEnvelope.control_points
- FModifierEnvelopeControlPoints.add
- FModifierEnvelopeControlPoints.remove

FModifierEnvelopeControlPoints(bpy_struct)

base class — bpy_struct

class bpy.types.**FModifierEnvelopeControlPoints(bpy_struct)**

Control points defining the shape of the envelope

add(frame)

Add a control point to a FModifierEnvelope

PARAMETERS:

frame (*float in [-inf, inf]*) – Frame to add this control-point

RETURNS:

Newly created control-point

RETURN TYPE:

FModifierEnvelopeControlPoint

remove(point)

Remove a control-point from an FModifierEnvelope

PARAMETERS:

point (FModifierEnvelopeControlPoint , (never None)) – Control-point to remove

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

Inherited Functions

- bpy_struct.as_pointer
- bpy_struct.driver_add
- bpy_struct.driver_remove
- bpy_struct.items
- bpy_struct.keyframe_delete
- bpy_struct.keyframe_insert

- 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.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

References

- FModifierEnvelope.control_points

FModifierFunctionGenerator(FModifier)

base classes — `bpy_struct`, `FModifier`

class bpy.types.**FModifierFunctionGenerator(FModifier)**

Generate values using a built-in function

amplitude

Scale factor determining the maximum/minimum values

TYPE:

float in [-inf, inf], default 0.0

function_type

Type of built-in function to use

- `SIN` Sine.
- `COS` Cosine.
- `TAN` Tangent.
- `SQRT` Square Root.
- `LN` Natural Logarithm.
- `SINC` Normalized Sine – sin(x) / x.

TYPE:

enum in ['SIN', 'COS', 'TAN', 'SQRT', 'LN', 'SINC'], default 'SIN'

phase_multiplier

Scale factor determining the 'speed' of the function

TYPE:

float in [-inf, inf], default 0.0

phase_offset

Constant factor to offset time by for function

TYPE:

float in [-inf, inf], default 0.0

use_additive

Values generated by this modifier are applied on top of the existing values instead of overwriting them

TYPE:

boolean, default False

value_offset

Constant factor to offset values by

TYPE:

float in [-inf, inf], default 0.0

classmethod bl_rna_get_subclass(id, default=None)

PARAMETERS:

id (*str*) – The RNA type identifier.

RETURNS:

The RNA type or default when not found

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
- FModifier.name
- FModifier.type
- FModifier.show_expanded
- FModifier.mute
- FModifier.is_valid
- FModifier.active
- FModifier.use_restricted_range
- FModifier.frame_start
- FModifier.frame_end
- FModifier.blend_in
- FModifier.blend_out
- FModifier.use_influence
- FModifier.influence

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
- FModifier.bl_rna_get_subclass
- FModifier.bl_rna_get_subclass_py

FModifierGenerator(FModifier)

base classes — bpy_struct, FModifier

class bpy.types.**FModifierGenerator(FModifier)**

Deterministically generate values for the modified F-Curve

coefficients

Coefficients for ‘x’ (starting from lowest power of x^0)

TYPE:

float array of 32 items in [-inf, inf], default (0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0)

mode

Type of generator to use

TYPE:

enum in [‘POLYNOMIAL’, ‘POLYNOMIAL_FACTORISED’], default ‘POLYNOMIAL’

poly_order

The highest power of ‘x’ for this polynomial (number of coefficients - 1)

TYPE:

int in [1, 100], default 0

use_additive

Values generated by this modifier are applied on top of the existing values instead of overwriting them

TYPE:

boolean, default False

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
- FModifier.name
- FModifier.use_restricted_range
- FModifier.frame_start

- FModifier.name
- FModifier.type
- FModifier.show_expanded
- FModifier.mute
- FModifier.is_valid
- FModifier.active
- FModifier.frame_start
- FModifier.frame_end
- FModifier.blend_in
- FModifier.blend_out
- FModifier.use_influence
- FModifier.influence

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
- FModifier.bl_rna_get_subclass
- FModifier.bl_rna_get_subclass_py

FModifierLimits(FModifier)

base classes — bpy_struct, FModifier

class bpy.types.**FModifierLimits(FModifier)**

Limit the time/value ranges of the modified F-Curve

max_x

Highest X value to allow

TYPE:

float in [-inf, inf], default 0.0

max_y

Highest Y value to allow

TYPE:

float in [-inf, inf], default 0.0

min_x

Lowest X value to allow

TYPE:

float in [-inf, inf], default 0.0

min_y

Lowest Y value to allow

TYPE:

float in [-inf, inf], default 0.0

use_max_x

Use the maximum X value

TYPE:

boolean, default False

use_max_y

Use the maximum Y value

TYPE:

boolean, default False

use_min_x

Use the minimum X value

TYPE:

boolean, default False

use_min_y

Use the minimum Y value

TYPE:

boolean, default False

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`
- `FModifier.name`
- `FModifier.type`
- `FModifier.show_expanded`
- `FModifier.mute`
- `FModifier.is_valid`
- `FModifier.active`
- `FModifier.use_restricted_range`
- `FModifier.frame_start`
- `FModifier.frame_end`
- `FModifier.blend_in`
- `FModifier.blend_out`
- `FModifier.use_influence`
- `FModifier.influence`

Inherited Functions

- `bpy_struct.as_pointer`
- `bpy_struct.driver_add`
- `bpy_struct.driver_remove`
- `bpy_struct.get`
- `bpy_struct.id_properties_clear`
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- `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`
- `FModifier.bl_rna_get_subclass`
- `FModifier.bl_rna_get_subclass_py`

FModifierNoise(FModifier)

base classes — bpy_struct, FModifier

class bpy.types.**FModifierNoise(FModifier)**

Give randomness to the modified F-Curve

blend_type

Method of modifying the existing F-Curve

TYPE:

enum in ['REPLACE', 'ADD', 'SUBTRACT', 'MULTIPLY'], default 'REPLACE'

depth

Amount of fine level detail present in the noise

TYPE:

int in [0, 32767], default 0

lacunarity

Gap between successive frequencies. Depth needs to be greater than 0 for this to have an effect

TYPE:

float in [-inf, inf], default 2.0

offset

Time offset for the noise effect

TYPE:

float in [-inf, inf], default 0.0

phase

A random seed for the noise effect

TYPE:

float in [-inf, inf], default 0.0

roughness

Amount of high frequency detail. Depth needs to be greater than 0 for this to have an effect

TYPE:

float in [-inf, inf], default 0.5

scale

Scaling (in time) of the noise

TYPE:

float in [-inf, inf], default 0.0

strength

Amplitude of the noise - the amount that it modifies the underlying curve

TYPE:

float in [-inf, inf], default 0.0

use_legacy_noise

Use the legacy way of generating noise. Has the issue that it can produce values outside of -1/1

TYPE:
boolean, default False

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`
- `FModifier.name`
- `FModifier.type`
- `FModifier.show_expanded`
- `FModifier.mute`
- `FModifier.is_valid`
- `FModifier.active`
- `FModifier.use_restricted_range`
- `FModifier.frame_start`
- `FModifier.frame_end`
- `FModifier.blend_in`
- `FModifier.blend_out`
- `FModifier.use_influence`
- `FModifier.influence`

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`
- `FModifier.bl_rna_get_subclass`
- `FModifier.bl_rna_get_subclass_py`

FModifierLimits(FModifier)

Report issue on this page

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FModifierStepped(FModifier)

base classes — bpy_struct, FModifier

class bpy.types.**FModifierStepped(FModifier)**

Hold each interpolated value from the F-Curve for several frames without changing the timing

frame_end

Frame that modifier's influence ends (if applicable)

TYPE:

float in [-inf, inf], default 0.0

frame_offset

Reference number of frames before frames get held (use to get hold for '1-3' vs '5-7' holding patterns)

TYPE:

float in [-inf, inf], default 0.0

frame_start

Frame that modifier's influence starts (if applicable)

TYPE:

float in [-inf, inf], default 0.0

frame_step

Number of frames to hold each value

TYPE:

float in [-inf, inf], default 0.0

use_frame_end

Restrict modifier to only act before its 'end' frame

TYPE:

boolean, default False

use_frame_start

Restrict modifier to only act after its 'start' frame

TYPE:

boolean, default False

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
- FModifier.name
- FModifier.type
- FModifier.show_expanded
- FModifier.mute
- FModifier.is_valid
- FModifier.active
- FModifier.use_restricted_range
- FModifier.frame_start
- FModifier.frame_end
- FModifier.blend_in
- FModifier.blend_out
- FModifier.use_influence
- FModifier.influence

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
- FModifier.bl_rna_get_subclass
- FModifier.bl_rna_get_subclass_py

FollowPathConstraint(Constraint)

base classes — bpy_struct, Constraint

class bpy.types.**FollowPathConstraint(Constraint)**

Lock motion to the target path

forward_axis

Axis that points forward along the path

TYPE:

enum in ['FORWARD_X', 'FORWARD_Y', 'FORWARD_Z', 'TRACK_NEGATIVE_X', 'TRACK_NEGATIVE_Y', 'TRACK_NEGATIVE_Z'], default 'FORWARD_X'

offset

Offset from the position corresponding to the time frame

TYPE:

float in [-1.04857e+06, 1.04857e+06], default 0.0

offset_factor

Percentage value defining target position along length of curve

TYPE:

float in [-inf, inf], default 0.0

target

Target Curve object

TYPE:

Object

up_axis

Axis that points upward

TYPE:

enum in ['UP_X', 'UP_Y', 'UP_Z'], default 'UP_X'

use_curve_follow

Object will follow the heading and banking of the curve

TYPE:

boolean, default False

use_curve_radius

Object is scaled by the curve radius

TYPE:

boolean, default False

use_fixed_location

Object will stay locked to a single point somewhere along the length of the curve regardless of time

TYPE:

boolean, default False

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`
- `Constraint.name`
- `Constraint.type`
- `Constraint.is_override_data`
- `Constraint.owner_space`
- `Constraint.target_space`
- `Constraint.space_object`
- `Constraint.space_subtarget`
- `Constraint.mute`
- `Constraint.enabled`
- `Constraint.show_expanded`
- `Constraint.is_valid`
- `Constraint.active`
- `Constraint.influence`
- `Constraint.error_location`
- `Constraint.error_rotation`

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`
- `Constraint.bl_rna_get_subclass`
- `Constraint.bl_rna_get_subclass_py`

FollowTrackConstraint(Constraint)

base classes — bpy_struct, Constraint

class bpy.types.**FollowTrackConstraint(Constraint)**

Lock motion to the target motion track

camera

Camera to which motion is parented (if empty active scene camera is used)

TYPE:

Object

clip

Movie Clip to get tracking data from

TYPE:

MovieClip

depth_object

Object used to define depth in camera space by projecting onto surface of this object

TYPE:

Object

frame_method

How the footage fits in the camera frame

TYPE:

enum in ['STRETCH', 'FIT', 'CROP'], default 'STRETCH'

object

Movie tracking object to follow (if empty, camera object is used)

TYPE:

string, default "", (never None)

track

Movie tracking track to follow

TYPE:

string, default "", (never None)

use_3d_position

Use 3D position of track to parent to

TYPE:

boolean, default False

use_active_clip

Use active clip defined in scene

TYPE:

boolean, default False

use_undistorted_position

Parent to undistorted position of 2D track

TYPE:
boolean, default False

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`
- `Constraint.name`
- `Constraint.type`
- `Constraint.is_override_data`
- `Constraint.owner_space`
- `Constraint.target_space`
- `Constraint.space_object`
- `Constraint.space_subtarget`
- `Constraint.mute`
- `Constraint.enabled`
- `Constraint.show_expanded`
- `Constraint.is_valid`
- `Constraint.active`
- `Constraint.influence`
- `Constraint.error_location`
- `Constraint.error_rotation`

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`
- `Constraint.bl_rna_get_subclass`
- `Constraint.bl_rna_get_subclass_py`

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ForeachGeometryElementGenerationItem(bpy_struct)

base class — bpy_struct

class bpy.types.**ForeachGeometryElementGenerationItem(bpy_struct)**

color

Color of the corresponding socket type in the node editor

TYPE:

float array of 4 items in [0, inf], default (0.0, 0.0, 0.0, 0.0), (readonly)

domain

Domain that the field is evaluated on

TYPE:

enum in Attribute Domain Items, default 'POINT'

name

TYPE:

string, default "", (never None)

socket_type

TYPE:

enum in Node Socket Data Type Items, default 'FLOAT'

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

Inherited Functions

- bpy_struct.as_pointer
- bpy_struct.driver_add
- bpy_struct.items
- bpy_struct.keyframe_delete

- 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.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

References

- GeometryNodeForeachGeometryElementOutput.generation_items
- NodeGeometryForeachGeometryElementGenerationItems.new
- NodeGeometryForeachGeometryEl

ForeachGeometryElementInputItem(bpy_struct)

base class — bpy_struct

class bpy.types.**ForeachGeometryElementInputItem(bpy_struct)**

color

Color of the corresponding socket type in the node editor

TYPE:

float array of 4 items in [0, inf], default (0.0, 0.0, 0.0, 0.0), (readonly)

name

TYPE:

string, default “”, (never None)

socket_type

TYPE:

enum in Node Socket Data Type Items, default ‘FLOAT’

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

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.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.is_property_hidden
- bpy_struct.is_property_overridable_library
- bpy_struct.is_property_readonly
- bpy_struct.is_property_set
- bpy_struct.property_overridable_library_set
- bpy_struct.property_unset
- bpy_struct.type_recast
- bpy_struct.values

References

- GeometryNodeForeachGeometryElementOutput.input_items
- NodeGeometryForeachGeometryElementInputItems.new
- NodeGeometryForeachGeometryElement

ForeachGeometryElementMainItem(bpy_struct)

base class — bpy_struct

class bpy.types.**ForeachGeometryElementMainItem(bpy_struct)**

color

Color of the corresponding socket type in the node editor

TYPE:

float array of 4 items in [0, inf], default (0.0, 0.0, 0.0, 0.0), (readonly)

name

TYPE:

string, default “”, (never None)

socket_type

TYPE:

enum in Node Socket Data Type Items, default ‘FLOAT’

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

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.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.is_property_hidden
- bpy_struct.is_property_overridable_library
- bpy_struct.is_property_readonly
- bpy_struct.is_property_set
- bpy_struct.property_overridable_library_set
- bpy_struct.property_unset
- bpy_struct.type_recast
- bpy_struct.values

References

- GeometryNodeForeachGeometryElementOutput.main_items
- NodeGeometryForeachGeometryElementMainItems.new
- NodeGeometryForeachGeometryElementM

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ForeachGeometryElementZoneViewerPathElem(ViewerPathElem)

base classes — bpy_struct , ViewerPathElem

class bpy.types.**ForeachGeometryElementZoneViewerPathElem(ViewerPathElem)**

zone_output_node_id

TYPE:

int in [-inf, inf], default 0

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
- ViewerPathElem.type
- ViewerPathElem.ui_name

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
- ViewerPathElem.bl_rna_get_subclass
- ViewerPathElem.bl_rna_get_subclass_py

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FreestyleLineSet(bpy_struct)

base class — bpy_struct

class bpy.types.**FreestyleLineSet(bpy_struct)**

Line set for associating lines and style parameters

collection

A collection of objects based on which feature edges are selected

TYPE:

Collection

collection_negation

Specify either inclusion or exclusion of feature edges belonging to a collection of objects

- INCLUSIVE Inclusive – Select feature edges belonging to some object in the group.
- EXCLUSIVE Exclusive – Select feature edges not belonging to any object in the group.

TYPE:

enum in ['INCLUSIVE', 'EXCLUSIVE'], default 'INCLUSIVE'

edge_type_combination

Specify a logical combination of selection conditions on feature edge types

- OR Logical OR – Select feature edges satisfying at least one of edge type conditions.
- AND Logical AND – Select feature edges satisfying all edge type conditions.

TYPE:

enum in ['OR', 'AND'], default 'OR'

edge_type_negation

Specify either inclusion or exclusion of feature edges selected by edge types

- INCLUSIVE Inclusive – Select feature edges satisfying the given edge type conditions.
- EXCLUSIVE Exclusive – Select feature edges not satisfying the given edge type conditions.

TYPE:

enum in ['INCLUSIVE', 'EXCLUSIVE'], default 'INCLUSIVE'

exclude_border

Exclude border edges

TYPE:

boolean, default False

exclude_contour

Exclude contours

TYPE:

boolean, default False

exclude_crease

Exclude crease edges

TYPE:

boolean, default False

boolean, default False

exclude_edge_mark

Exclude edge marks

TYPE:

boolean, default False

exclude_external_contour

Exclude external contours

TYPE:

boolean, default False

exclude_material_boundary

Exclude edges at material boundaries

TYPE:

boolean, default False

exclude_ridge_valley

Exclude ridges and valleys

TYPE:

boolean, default False

exclude_silhouette

Exclude silhouette edges

TYPE:

boolean, default False

exclude_suggestive_contour

Exclude suggestive contours

TYPE:

boolean, default False

face_mark_condition

Specify a feature edge selection condition based on face marks

- `ONE` One Face – Select a feature edge if either of its adjacent faces is marked.
- `BOTH` Both Faces – Select a feature edge if both of its adjacent faces are marked.

TYPE:

enum in [‘ONE’, ‘BOTH’], default ‘ONE’

face_mark_negation

Specify either inclusion or exclusion of feature edges selected by face marks

- `INCLUSIVE` Inclusive – Select feature edges satisfying the given face mark conditions.
- `EXCLUSIVE` Exclusive – Select feature edges not satisfying the given face mark conditions.

TYPE:

enum in [‘INCLUSIVE’, ‘EXCLUSIVE’], default ‘INCLUSIVE’

linestyle

Line style settings

TYPE:

FreestyleLineStyle, (never None)

name

Line set name

TYPE:

string, default “”, (never None)

qi_end

Last QI value of the QI range

TYPE:

int in [0, inf], default 0

qi_start

First QI value of the QI range

TYPE:

int in [0, inf], default 0

select_border

Select border edges (open mesh edges)

TYPE:

boolean, default False

select_by_collection

Select feature edges based on a collection of objects

TYPE:

boolean, default False

select_by_edge_types

Select feature edges based on edge types

TYPE:

boolean, default False

select_by_face_marks

Select feature edges by face marks

TYPE:

boolean, default False

select_by_image_border

Select feature edges by image border (less memory consumption)

TYPE:

boolean, default False

select_by_visibility

Select feature edges based on visibility

TYPE:

boolean, default False

select_contour

Select contours (outer silhouettes of each object)

TYPE:
boolean, default False

select_crease

Select crease edges (those between two faces making an angle smaller than the Crease Angle)

TYPE:
boolean, default False

select_edge_mark

Select edge marks (edges annotated by Freestyle edge marks)

TYPE:
boolean, default False

select_external_contour

Select external contours (outer silhouettes of occluding and occluded objects)

TYPE:
boolean, default False

select_material_boundary

Select edges at material boundaries

TYPE:
boolean, default False

select_ridge_valley

Select ridges and valleys (boundary lines between convex and concave areas of surface)

TYPE:
boolean, default False

select_silhouette

Select silhouettes (edges at the boundary of visible and hidden faces)

TYPE:
boolean, default False

select_suggestive_contour

Select suggestive contours (almost silhouette/contour edges)

TYPE:
boolean, default False

show_render

Enable or disable this line set during stroke rendering

TYPE:
boolean, default False

visibility

Determine how to use visibility for feature edge selection

- `VISIBLE` Visible – Select visible feature edges.
- `HIDDEN` Hidden – Select hidden feature edges.

- `RANGE` Quantitative Invisibility – Select feature edges within a range of quantitative invisibility (QI) values.

TYPE:
enum in ['VISIBLE', 'HIDDEN', 'RANGE'], default 'VISIBLE'

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`

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`

References

- `Linesets.active`
- `Linesets.new`
- `Linesets.remove`
- `FreestyleSettings.linesets`

FreestyleLineStyle(ID)

base classes — bpy_struct , ID

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

Freestyle line style, reusable by multiple line sets

active_texture

Active texture slot being displayed

TYPE:

Texture

active_texture_index

Index of active texture slot

TYPE:

int in [0, 17], default 0

alpha

Base alpha transparency, possibly modified by alpha transparency modifiers

TYPE:

float in [0, 1], default 1.0

alpha_modifiers

List of alpha transparency modifiers

TYPE:

LineStyleAlphaModifiers bpy_prop_collection of LineStyleAlphaModifier , (readonly)

angle_max

Maximum 2D angle for splitting chains

TYPE:

float in [0, 3.14159], default 0.0

angle_min

Minimum 2D angle for splitting chains

TYPE:

float in [0, 3.14159], default 0.0

animation_data

Animation data for this data-block

TYPE:

AnimData , (readonly)

caps

Select the shape of both ends of strokes

- BUTT Butt – Butt cap (flat).
- ROUND Round – Round cap (half-circle).
- SQUARE Square – Square cap (flat and extended).

— —

TYPE:

enum in [‘BUTT’, ‘ROUND’, ‘SQUARE’], default ‘BUTT’

chain_count

Chain count for the selection of first N chains

TYPE:

int in [0, inf], default 10

chaining

Select the way how feature edges are jointed to form chains

- `PLAIN` Plain – Plain chaining.
- `SKETCHY` Sketchy – Sketchy chaining with a multiple touch.

TYPE:

enum in [‘PLAIN’, ‘SKETCHY’], default ‘PLAIN’

color

Base line color, possibly modified by line color modifiers

TYPE:

`mathutils.Color` of 3 items in [0, inf], default (0.0, 0.0, 0.0)

color_modifiers

List of line color modifiers

TYPE:

`LineStyleColorModifiers bpy_prop_collection` of `LineStyleColorModifier`, (readonly)

dash1

Length of the 1st dash for dashed lines

TYPE:

int in [0, 65535], default 0

dash2

Length of the 2nd dash for dashed lines

TYPE:

int in [0, 65535], default 0

dash3

Length of the 3rd dash for dashed lines

TYPE:

int in [0, 65535], default 0

gap1

Length of the 1st gap for dashed lines

TYPE:

int in [0, 65535], default 0

gap2

Length of the 2nd gap for dashed lines

TYPE:

int in [0, 65535], default 0

gap3

Length of the 3rd gap for dashed lines

TYPE:

int in [0, 65535], default 0

geometry_modifiers

List of stroke geometry modifiers

TYPE:

`LineStyleGeometryModifiers` `bpy_prop_collection` of `LineStyleGeometryModifier`, (readonly)

integration_type

Select the way how the sort key is computed for each chain

- `MEAN` Mean – The value computed for the chain is the mean of the values obtained for chain vertices.
- `MIN` Min – The value computed for the chain is the minimum of the values obtained for chain vertices.
- `MAX` Max – The value computed for the chain is the maximum of the values obtained for chain vertices.
- `FIRST` First – The value computed for the chain is the value obtained for the first chain vertex.
- `LAST` Last – The value computed for the chain is the value obtained for the last chain vertex.

TYPE:

enum in ['MEAN', 'MIN', 'MAX', 'FIRST', 'LAST'], default 'MEAN'

length_max

Maximum curvilinear 2D length for the selection of chains

TYPE:

float in [0, 10000], default 10000.0

length_min

Minimum curvilinear 2D length for the selection of chains

TYPE:

float in [0, 10000], default 0.0

material_boundary

If true, chains of feature edges are split at material boundaries

TYPE:

boolean, default False

node_tree

Node tree for node-based shaders

TYPE:

`NodeTree`, (readonly)

panel

Select the property panel to be shown

- `STROKES` Strokes – Show the panel for stroke construction.
- `COLOR` Color – Show the panel for line color options.
- `ALPHA` Alpha – Show the panel for alpha transparency options.
- `THICKNESS` Thickness – Show the panel for line thickness options.

- `GEOMETRY` Geometry – Show the panel for stroke geometry options.
- `TEXTURE` Texture – Show the panel for stroke texture options.

TYPE:

enum in [‘STROKES’, ‘COLOR’, ‘ALPHA’, ‘THICKNESS’, ‘GEOMETRY’, ‘TEXTURE’], default ‘STROKES’

rounds

Number of rounds in a sketchy multiple touch

TYPE:

int in [1, 1000], default 3

sort_key

Select the sort key to determine the stacking order of chains

- `DISTANCE_FROM_CAMERA` Distance from Camera – Sort by distance from camera (closer lines lie on top of further lines).
- `2D_LENGTH` 2D Length – Sort by curvilinear 2D length (longer lines lie on top of shorter lines).
- `PROJECTED_X` Projected X – Sort by the projected X value in the image coordinate system.
- `PROJECTED_Y` Projected Y – Sort by the projected Y value in the image coordinate system.

TYPE:

enum in [‘DISTANCE_FROM_CAMERA’, ‘2D_LENGTH’, ‘PROJECTED_X’, ‘PROJECTED_Y’], default ‘DISTANCE_FROM_CAMERA’

sort_order

Select the sort order

- `DEFAULT` Default – Default order of the sort key.
- `REVERSE` Reverse – Reverse order.

TYPE:

enum in [‘DEFAULT’, ‘REVERSE’], default ‘DEFAULT’

split_dash1

Length of the 1st dash for splitting

TYPE:

int in [0, 65535], default 0

split_dash2

Length of the 2nd dash for splitting

TYPE:

int in [0, 65535], default 0

split_dash3

Length of the 3rd dash for splitting

TYPE:

int in [0, 65535], default 0

split_gap1

Length of the 1st gap for splitting

TYPE:

int in [0, 65535], default 0

split_gap2

Length of the 2nd gap for splitting

TYPE:

int in [0, 65535], default 0

split_gap3

Length of the 3rd gap for splitting

TYPE:

int in [0, 65535], default 0

split_length

Curvilinear 2D length for chain splitting

TYPE:

float in [0, 10000], default 100.0

texture_slots

Texture slots defining the mapping and influence of textures

TYPE:

`LineStyleTextureSlots` `bpy_prop_collection` of `LineStyleTextureSlot`, (readonly)

texture_spacing

Spacing for textures along stroke length

TYPE:

float in [0.01, 100], default 1.0

thickness

Base line thickness, possibly modified by line thickness modifiers

TYPE:

float in [0, 10000], default 3.0

thickness_modifiers

List of line thickness modifiers

TYPE:

`LineStyleThicknessModifiers` `bpy_prop_collection` of `LineStyleThicknessModifier`, (readon

thickness_position

Thickness position of silhouettes and border edges (applicable when plain chaining is used with the Same Object option)

- `CENTER` Center – Silhouettes and border edges are centered along stroke geometry.
- `INSIDE` Inside – Silhouettes and border edges are drawn inside of stroke geometry.
- `OUTSIDE` Outside – Silhouettes and border edges are drawn outside of stroke geometry.
- `RELATIVE` Relative – Silhouettes and border edges are shifted by a user-defined ratio.

TYPE:

enum in ['CENTER', 'INSIDE', 'OUTSIDE', 'RELATIVE'], default 'CENTER'

thickness_ratio

A number between 0 (inside) and 1 (outside) specifying the relative position of stroke thickness

TYPE:

float in [0, 1], default 0.5

use_angle_max

Split chains at points with angles larger than the maximum 2D angle

TYPE:

boolean, default False

use_angle_min

Split chains at points with angles smaller than the minimum 2D angle

TYPE:

boolean, default False

use_chain_count

Enable the selection of first N chains

TYPE:

boolean, default False

use_chaining

Enable chaining of feature edges

TYPE:

boolean, default True

use_dashed_line

Enable or disable dashed line

TYPE:

boolean, default False

use_length_max

Enable the selection of chains by a maximum 2D length

TYPE:

boolean, default False

use_length_min

Enable the selection of chains by a minimum 2D length

TYPE:

boolean, default False

use_nodes

Use shader nodes for the line style

TYPE:

boolean, default False

use_same_object

If true, only feature edges of the same object are joined

TYPE:

boolean, default True

use_sorting

Arrange the stacking order of strokes

TYPE:

boolean, default False

use_split_length

Enable chain splitting by curvilinear 2D length

TYPE:

boolean, default False

use_split_pattern

Enable chain splitting by dashed line patterns

TYPE:

boolean, default False

use_texture

Enable or disable textured strokes

TYPE:

boolean, default True

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.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

- bpy.context.line_style
- BlendData.linestyles
- BlendDataLineStyles.new
- BlendDataLineStyles.remove
- FreestyleLineSet.linestyle

FreestyleModules(bpy_struct)

base class — bpy_struct

class bpy.types.**FreestyleModules(bpy_struct)**

A list of style modules (to be applied from top to bottom)

new()

Add a style module to scene render layer Freestyle settings

RETURNS:

Newly created style module

RETURN TYPE:

FreestyleModuleSettings

remove(module)

Remove a style module from scene render layer Freestyle settings

PARAMETERS:

module (FreestyleModuleSettings, (never None)) – Style module to remove

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

Inherited Functions

- bpy_struct.as_pointer
- bpy_struct.driver_add
- bpy_struct.driver_remove
- bpy_struct.get
- bpy_struct.id_properties_clear
- bpy_struct.items
- bpy_struct.keyframe_delete
- bpy_struct.keyframe_insert
- bpy_struct.keys
- bpy_struct.path_from_id

- 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.path_resolve
- bpy_struct.pop
- bpy_struct.property_overridable_library_set
- bpy_struct.property_unset
- bpy_struct.type_recast
- bpy_struct.values

References

- FreestyleSettings.modules

FreestyleModuleSettings(bpy_struct)

base class — bpy_struct

class bpy.types.**FreestyleModuleSettings(bpy_struct)**

Style module configuration for specifying a style module

script

Python script to define a style module

TYPE:

Text

use

Enable or disable this style module during stroke rendering

TYPE:

boolean, default False

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

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.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.is_property_hidden
- bpy_struct.is_property_overridable_library
- bpy_struct.is_property_readonly
- bpy_struct.is_property_set
- bpy_struct.property_overridable_library_set
- bpy_struct.property_unset
- bpy_struct.type_recast
- bpy_struct.values

References

- FreestyleModules.new
- FreestyleModules.remove
- FreestyleSettings.modules

FreestyleSettings(bpy_struct)

base class — bpy_struct

class bpy.types.**FreestyleSettings(bpy_struct)**

Freestyle settings for a ViewLayer data-block

as_render_pass

Renders Freestyle output to a separate pass instead of overlaying it on the Combined pass

TYPE:

boolean, default False

crease_angle

Angular threshold for detecting crease edges

TYPE:

float in [0, 3.14159], default 0.0

kr_derivative_epsilon

Kr derivative epsilon for computing suggestive contours

TYPE:

float in [-1000, 1000], default 0.0

linesets

TYPE:

Linesets bpy_prop_collection of FreestyleLineSet, (readonly)

mode

Select the Freestyle control mode

- SCRIPT Python Scripting – Advanced mode for using style modules written in Python.
- EDITOR Parameter Editor – Basic mode for interactive style parameter editing.

TYPE:

enum in ['SCRIPT', 'EDITOR'], default 'SCRIPT'

modules

A list of style modules (to be applied from top to bottom)

TYPE:

FreestyleModules bpy_prop_collection of FreestyleModuleSettings, (readonly)

sphere_radius

Sphere radius for computing curvatures

TYPE:

float in [0, 1000], default 1.0

use_culling

If enabled, out-of-view edges are ignored

TYPE:

boolean, default False

use_material_boundaries

Enable material boundaries

TYPE:

boolean, default False

use_ridges_and_valleys

Enable ridges and valleys

TYPE:

boolean, default False

use_smoothness

Take face smoothness into account in view map calculation

TYPE:

boolean, default False

use_suggestive_contours

Enable suggestive contours

TYPE:

boolean, default False

use_view_map_cache

Keep the computed view map and avoid recalculating it if mesh geometry is unchanged

TYPE:

boolean, default False

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`

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

References

- ViewLayer.freestyle_settings

Function(bpy_struct)

base class — bpy_struct

class bpy.types.**Function(bpy_struct)**

RNA function definition

description

Description of the Function's purpose

TYPE:

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

identifier

Unique name used in the code and scripting

TYPE:

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

is_registered

Function is registered as callback as part of type registration

TYPE:

boolean, default False, (readonly)

is_registered_optional

Function is optionally registered as callback part of type registration

TYPE:

boolean, default False, (readonly)

parameters

Parameters for the function

TYPE:

bpy_prop_collection of Property, (readonly)

use_self

Function does not pass itself as an argument (becomes a static method in Python)

TYPE:

boolean, default False, (readonly)

use_self_type

Function passes itself type as an argument (becomes a class method in Python if use_self is false)

TYPE:

boolean, default False, (readonly)

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

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

References

- Struct.functions

Skip to content

FunctionNode(NodeInternal)

base classes — bpy_struct, Node, NodeInternal

subclasses — FunctionNodeAlignEulerToVector, FunctionNodeAlignRotationToVector, FunctionNodeAxesToRotation, FunctionNodeAxisAngleToRotation, FunctionNodeBooleanMath, FunctionNodeCombineColor, FunctionNodeCombineMatrix, FunctionNodeCombineTransform, FunctionNodeCompare, FunctionNodeEulerToRotation, FunctionNodeFindInString, FunctionNodeFloatToInt, FunctionNodeHashValue, FunctionNodeInputBool, FunctionNodeInputColor, FunctionNodeInputInt, FunctionNodeInputRotation, FunctionNodeInputSpecialCharacters, FunctionNodeInputString, FunctionNodeInputVector, FunctionNodeIntegerMath, FunctionNodeInvertMatrix, FunctionNodeInvertRotation, FunctionNodeMatrixDeterminant, FunctionNodeMatrixMultiply, FunctionNodeProjectPoint, FunctionNodeQuaternionToRotation, FunctionNodeRandomValue, FunctionNodeReplaceString, FunctionNodeRotateEuler, FunctionNodeRotateRotation, FunctionNodeRotateVector, FunctionNodeRotationToAxisAngle, FunctionNodeRotationToEuler, FunctionNodeRotationToQuaternion, FunctionNodeSeparateColor, FunctionNodeSeparateMatrix, FunctionNodeSeparateTransform, FunctionNodeSliceString, FunctionNodeStringLength, FunctionNodeTransformDirection, FunctionNodeTransformPoint, FunctionNodeTransposeMatrix, FunctionNodeValueToString

class bpy.types.**FunctionNode(NodeInternal)**

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
- Node.type
- Node.location
- Node.location_absolute
- Node.width
- Node.height
- Node.dimensions
- Node.name
- Node.label
- Node.inputs
- Node.outputs
- Node.select
- Node.show_options
- Node.show_preview
- Node.hide
- Node.mute
- Node.show_texture
- Node.bl_idname
- Node.bl_label
- Node.bl_description
- Node.bl_icon
- Node.bl_static_type

- Node.outputs
- Node.internal_links
- Node.parent
- Node.warning_propagation
- Node.use_custom_color
- Node.color
- Node.color_tag
- Node.bl_static_type
- Node.bl_width_default
- Node.bl_width_min
- Node.bl_width_max
- Node.bl_height_default
- Node.bl_height_min
- Node.bl_height_max

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
- Node.socket_value_update
- Node.is_registered_node_type
- Node.poll
- Node.poll_instance
- Node.update
- Node.insert_link
- Node.init
- Node.copy
- Node.free
- Node.draw_buttons
- Node.draw_buttons_ext
- Node.draw_label
- Node.debug_zone_body_lazy_function_graph
- Node.debug_zone_lazy_function_graph
- Node.poll
- Node.bl_rna_get_subclass
- Node.bl_rna_get_subclass_py
- NodeInternal.poll
- NodeInternal.poll_instance
- NodeInternal.update
- NodeInternal.draw_buttons
- NodeInternal.draw_buttons_ext
- NodeInternal.bl_rna_get_subclass
- NodeInternal.bl_rna_get_subclass_py

FunctionNodeAlignEulerToVector(FunctionNode)

base classes — bpy_struct, Node, NodeInternal, FunctionNode

class bpy.types.**FunctionNodeAlignEulerToVector(FunctionNode)**

axis

Axis to align to the vector

- X X – Align the X axis with the vector.
- Y Y – Align the Y axis with the vector.
- Z Z – Align the Z axis with the vector.

TYPE:

enum in ['X', 'Y', 'Z'], default 'X'

pivot_axis

Axis to rotate around

- AUTO Auto – Automatically detect the best rotation axis to rotate towards the vector.
- X X – Rotate around the local X axis.
- Y Y – Rotate around the local Y axis.
- Z Z – Rotate around the local Z axis.

TYPE:

enum in ['AUTO', 'X', 'Y', 'Z'], default 'AUTO'

classmethod is_registered_node_type()

True if a registered node type

RETURNS:

Result

RETURN TYPE:

boolean

classmethod input_template(index)

Input socket template

PARAMETERS:

index (*int in [0, inf]*) – Index

RETURNS:

result

RETURN TYPE:

NodeInternalSocketTemplate

classmethod output_template(index)

Output socket template

PARAMETERS:

index (*int in [0, inf]*) – Index

RETURNS:

result

RETURN TYPE:

NodeInternalSocketTemplate

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
- Node.type
- Node.location
- Node.location_absolute
- Node.width
- Node.height
- Node.dimensions
- Node.name
- Node.label
- Node.inputs
- Node.outputs
- Node.internal_links
- Node.parent
- Node.warning_propagation
- Node.use_custom_color
- Node.color
- Node.color_tag
- Node.select
- Node.show_options
- Node.show_preview
- Node.hide
- Node.mute
- Node.show_texture
- Node.bl_idname
- Node.bl_label
- Node.bl_description
- Node.bl_icon
- Node.bl_static_type
- Node.bl_width_default
- Node.bl_width_min
- Node.bl_width_max
- Node.bl_height_default
- Node.bl_height_min
- Node.bl_height_max

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
- Node.poll
- Node.poll_instance
- Node.update
- Node.insert_link
- Node.init
- Node.copy
- Node.free

- 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
- Node.socket_value_update
- Node.is_registered_node_type
- Node.draw_buttons
- Node.draw_buttons_ext
- Node.draw_label
- Node.debug_zone_body_lazy_function_graph
- Node.debug_zone_lazy_function_graph
- Node.poll
- Node.bl_rna_get_subclass
- Node.bl_rna_get_subclass_py
- NodeInternal.poll
- NodeInternal.poll_instance
- NodeInternal.update
- NodeInternal.draw_buttons
- NodeInternal.draw_buttons_ext
- NodeInternal.bl_rna_get_subclass
- NodeInternal.bl_rna_get_subclass_py
- FunctionNode.bl_rna_get_subclass
- FunctionNode.bl_rna_get_subclass_py

FunctionNodeAlignRotationToVector(FunctionNode)

base classes — bpy_struct, Node, NodeInternal, FunctionNode

class bpy.types.**FunctionNodeAlignRotationToVector(FunctionNode)**

axis

Axis to align to the vector

- X X – Align the X axis with the vector.
- Y Y – Align the Y axis with the vector.
- Z Z – Align the Z axis with the vector.

TYPE:

enum in ['X', 'Y', 'Z'], default 'X'

pivot_axis

Axis to rotate around

- AUTO Auto – Automatically detect the best rotation axis to rotate towards the vector.
- X X – Rotate around the local X axis.
- Y Y – Rotate around the local Y axis.
- Z Z – Rotate around the local Z axis.

TYPE:

enum in ['AUTO', 'X', 'Y', 'Z'], default 'AUTO'

classmethod is_registered_node_type()

True if a registered node type

RETURNS:

Result

RETURN TYPE:

boolean

classmethod input_template(index)

Input socket template

PARAMETERS:

index (*int in [0, inf]*) – Index

RETURNS:

result

RETURN TYPE:

NodeInternalSocketTemplate

classmethod output_template(index)

Output socket template

PARAMETERS:

index (*int in [0, inf]*) – Index

RETURNS:

result

RETURN TYPE:

NodeInternalSocketTemplate

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
- Node.type
- Node.location
- Node.location_absolute
- Node.width
- Node.height
- Node.dimensions
- Node.name
- Node.label
- Node.inputs
- Node.outputs
- Node.internal_links
- Node.parent
- Node.warning_propagation
- Node.use_custom_color
- Node.color
- Node.color_tag
- Node.select
- Node.show_options
- Node.show_preview
- Node.hide
- Node.mute
- Node.show_texture
- Node.bl_idname
- Node.bl_label
- Node.bl_description
- Node.bl_icon
- Node.bl_static_type
- Node.bl_width_default
- Node.bl_width_min
- Node.bl_width_max
- Node.bl_height_default
- Node.bl_height_min
- Node.bl_height_max

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
- Node.poll
- Node.poll_instance
- Node.update
- Node.insert_link
- Node.init
- Node.copy
- Node.free

- 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
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- bpy_struct.property_unset
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- Node.bl_rna_get_subclass_py
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- NodeInternal.poll_instance
- NodeInternal.update
- NodeInternal.draw_buttons
- NodeInternal.draw_buttons_ext
- NodeInternal.bl_rna_get_subclass
- NodeInternal.bl_rna_get_subclass_py
- FunctionNode.bl_rna_get_subclass
- FunctionNode.bl_rna_get_subclass_py