

# SubsurfModifier(Modifier)

base classes — [bpy\\_struct](#), [Modifier](#)

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

Subdivision surface modifier

## boundary\_smooth

Controls how open boundaries are smoothed

### TYPE:

enum in [Subdivision Boundary Smooth Items](#), default 'ALL'

## levels

Number of subdivisions to perform in the 3D viewport

### TYPE:

int in [0, 11], default 1

## quality

Accuracy of vertex positions, lower value is faster but less precise

### TYPE:

int in [1, 10], default 3

## render\_levels

Number of subdivisions to perform when rendering

### TYPE:

int in [0, 11], default 2

## show\_only\_control\_edges

Skip displaying interior subdivided edges

### TYPE:

boolean, default True

## subdivision\_type

Select type of subdivision algorithm

- `CATMULL_CLARK` Catmull-Clark – Create a smooth curved surface using the Catmull-Clark subdivision scheme.
- `SIMPLE` Simple – Subdivide faces without changing shape.

### TYPE:

enum in ['CATMULL\_CLARK', 'SIMPLE'], default 'CATMULL\_CLARK'

## use\_creases

Use mesh crease information to sharpen edges or corners

### TYPE:

boolean, default True

## use\_custom\_normals

Interpolates existing custom normals to resulting mesh

### TYPE:

boolean, default True

boolean, default False

#### **use\_limit\_surface**

Place vertices at the surface that would be produced with infinite levels of subdivision (smoothest possible shape)

#### **TYPE:**

boolean, default True

#### **uv\_smooth**

Controls how smoothing is applied to UVs

#### **TYPE:**

enum in [Subdivision Uv Smooth Items](#), default 'PRESERVE\_BOUNDARIES'

#### **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\\_viewport](#)
- [Modifier.show\\_render](#)
- [Modifier.show\\_in\\_editmode](#)
- [Modifier.show\\_on\\_cage](#)
- [Modifier.show\\_expanded](#)
- [Modifier.is\\_active](#)
- [Modifier.use\\_pin\\_to\\_last](#)
- [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.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.is_property_hidden`
- `bpy_struct.is_property_overrideable_library`
- `bpy_struct.is_property_readonly`
- `bpy_struct.is_property_set`
- `bpy_struct.items`
- `bpy_struct.property_unset`
- `bpy_struct.type_recast`
- `bpy_struct.values`
- `Modifier.bl_rna_get_subclass`
- `Modifier.bl_rna_get_subclass_py`

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