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# GeometryNodeProximity(GeometryNode)

base classes — [bpy\\_struct](#), [Node](#), [NodeInternal](#), [GeometryNode](#)

**class** bpy.types.GeometryNodeProximity(GeometryNode)

Compute the closest location on the target geometry

## target\_element

Element of the target geometry to calculate the distance from

- `POINTS` Points – Calculate the proximity to the target’s points (faster than the other modes).
- `EDGES` Edges – Calculate the proximity to the target’s edges.
- `FACES` Faces – Calculate the proximity to the target’s faces.

## TYPE:

enum in ['POINTS', 'EDGES', 'FACES'], default 'FACES'

**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`
- `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.poll_from_id`
- `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`

- [bpy\\_struct.patn\\_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](#)
- [NodeInternal.poll\\_instance](#)
- [NodeInternal.update](#)
- [NodeInternal.draw\\_buttons](#)
- [NodeInternal.draw\\_buttons\\_ext](#)
- [NodeInternal.bl\\_rna\\_get\\_subclass](#)
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- [GeometryNode.poll](#)
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