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# GeometryNode(NodeInternal)

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

subclasses — [GeometryNodeAccumulateField](#), [GeometryNodeAttributeDomainSize](#), [GeometryNodeAttributeStatistic](#), [GeometryNodeBake](#), [GeometryNodeBlurAttribute](#), [GeometryNodeBoundingBox](#), [GeometryNodeCaptureAttribute](#), [GeometryNodeCollectionInfo](#), [GeometryNodeConvexHull](#), [GeometryNodeCornersOfEdge](#), [GeometryNodeCornersOfFace](#), [GeometryNodeCornersOfVertex](#), [GeometryNodeCurveArc](#), [GeometryNodeCurveEndpointSelection](#), [GeometryNodeCurveHandleTypeSelection](#), [GeometryNodeCurveLength](#), [GeometryNodeCurveOfPoint](#), [GeometryNodeCurvePrimitiveBezierSegment](#), [GeometryNodeCurvePrimitiveCircle](#), [GeometryNodeCurvePrimitiveLine](#), [GeometryNodeCurvePrimitiveQuadrilateral](#), [GeometryNodeCurveQuadraticBezier](#), [GeometryNodeCurveSetHandles](#), [GeometryNodeCurveSpiral](#), [GeometryNodeCurveSplineType](#), [GeometryNodeCurveStar](#), [GeometryNodeCurveToMesh](#), [GeometryNodeCurveToPoints](#), [GeometryNodeCurvesToGreasePencil](#), [GeometryNodeCustomGroup](#), [GeometryNodeDeformCurvesOnSurface](#), [GeometryNodeDeleteGeometry](#), [GeometryNodeDistributePointsInGrid](#), [GeometryNodeDistributePointsInVolume](#), [GeometryNodeDistributePointsOnFaces](#), [GeometryNodeDualMesh](#), [GeometryNodeDuplicateElements](#), [GeometryNodeEdgePathsToCurves](#), [GeometryNodeEdgePathsToSelection](#), [GeometryNodeEdgesOfCorner](#), [GeometryNodeEdgesOfVertex](#), [GeometryNodeEdgesToFaceGroups](#), [GeometryNodeExtrudeMesh](#), [GeometryNodeFaceOfCorner](#), [GeometryNodeFieldAtIndex](#), [GeometryNodeFieldOnDomain](#), [GeometryNodeFillCurve](#), [GeometryNodeFilletCurve](#), [GeometryNodeFlipFaces](#), [GeometryNodeForeachGeometryElementInput](#), [GeometryNodeForeachGeometryElementOutput](#), [GeometryNodeGeometryToInstance](#), [GeometryNodeGetNamedGrid](#), [GeometryNodeGizmoDial](#), [GeometryNodeGizmoLinear](#), [GeometryNodeGizmoTransform](#), [GeometryNodeGreasePencilToCurves](#), [GeometryNodeGridToMesh](#), [GeometryNodeGroup](#), [GeometryNodeImageInfo](#), [GeometryNodeImageTexture](#), [GeometryNodeImportOBJ](#), [GeometryNodeImportPLY](#), [GeometryNodeImportSTL](#), [GeometryNodeIndexOfNearest](#), [GeometryNodeIndexSwitch](#), [GeometryNodeInputActiveCamera](#), [GeometryNodeInputCollection](#), [GeometryNodeInputCurveHandlePositions](#), [GeometryNodeInputCurveTilt](#), [GeometryNodeInputEdgeSmooth](#), [GeometryNodeInputID](#), [GeometryNodeInputImage](#), [GeometryNodeInputIndex](#), [GeometryNodeInputInstanceRotation](#), [GeometryNodeInputInstanceScale](#), [GeometryNodeInputMaterial](#), [GeometryNodeInputMaterialIndex](#), [GeometryNodeInputMeshEdgeAngle](#), [GeometryNodeInputMeshEdgeNeighbors](#), [GeometryNodeInputMeshEdgeVertices](#), [GeometryNodeInputMeshFaceArea](#), [GeometryNodeInputMeshFaceIsPlanar](#), [GeometryNodeInputMeshFaceNeighbors](#), [GeometryNodeInputMeshIsland](#), [GeometryNodeInputMeshVertexNeighbors](#), [GeometryNodeInputNamedAttribute](#), [GeometryNodeInputNamedLayerSelection](#), [GeometryNodeInputNormal](#), [GeometryNodeInputObject](#), [GeometryNodeInputPosition](#), [GeometryNodeInputRadius](#), [GeometryNodeInputSceneTime](#), [GeometryNodeInputShadeSmooth](#), [GeometryNodeInputShortestEdgePaths](#), [GeometryNodeInputSplineCyclic](#), [GeometryNodeInputSplineResolution](#), [GeometryNodeInputTangent](#), [GeometryNodeInstanceOnPoints](#), [GeometryNodeInstanceTransform](#), [GeometryNodeInstancesToPoints](#), [GeometryNodeInterpolateCurves](#), [GeometryNodeIsViewport](#), [GeometryNodeJoinGeometry](#), [GeometryNodeMaterialSelection](#), [GeometryNodeMenuSwitch](#), [GeometryNodeMergeByDistance](#), [GeometryNodeMergeLayers](#), [GeometryNodeMeshBoolean](#), [GeometryNodeMeshCircle](#), [GeometryNodeMeshCone](#), [GeometryNodeMeshCube](#), [GeometryNodeMeshCylinder](#), [GeometryNodeMeshFaceSetBoundaries](#), [GeometryNodeMeshGrid](#), [GeometryNodeMeshIcoSphere](#), [GeometryNodeMeshLine](#), [GeometryNodeMeshToCurve](#), [GeometryNodeMeshToDensityGrid](#), [GeometryNodeMeshToPoints](#), [GeometryNodeMeshToSDFGrid](#), [GeometryNodeMeshToVolume](#), [GeometryNodeMeshUVSphere](#), [GeometryNodeObjectInfo](#), [GeometryNodeOffsetCornerInFace](#), [GeometryNodeOffsetPointInCurve](#), [GeometryNodePoints](#), [GeometryNodePointsOfCurve](#), [GeometryNodePointsToCurves](#), [GeometryNodePointsToSDFGrid](#), [GeometryNodePointsToVertices](#), [GeometryNodePointsToVolume](#), [GeometryNodeProximity](#), [GeometryNodeRaycast](#), [GeometryNodeRealizeInstances](#), [GeometryNodeRemoveAttribute](#), [GeometryNodeRepeatInput](#), [GeometryNodeRepeatOutput](#), [GeometryNodeReplaceMaterial](#), [GeometryNodeResampleCurve](#), [GeometryNodeReverseCurve](#), [GeometryNodeRotateInstances](#), [GeometryNodeSDFGridBoolean](#), [GeometryNodeSampleCurve](#), [GeometryNodeSampleGrid](#)

GeometryNodeSURGridBoolean, GeometryNodeSampleCurve, GeometryNodeSampleGrid, GeometryNodeSampleGridIndex, GeometryNodeSampleIndex, GeometryNodeSampleNearest, GeometryNodeSampleNearestSurface, GeometryNodeSampleUVSurface, GeometryNodeScaleElements, GeometryNodeScaleInstances, GeometryNodeSelfObject, GeometryNodeSeparateComponents, GeometryNodeSeparateGeometry, GeometryNodeSetCurveHandlePositions, GeometryNodeSetCurveNormal, GeometryNodeSetCurveRadius, GeometryNodeSetCurveTilt, GeometryNodeSetGeometryName, GeometryNodeSetID, GeometryNodeSetInstanceTransform, GeometryNodeSetMaterial, GeometryNodeSetMaterialIndex, GeometryNodeSetPointRadius, GeometryNodeSetPosition, GeometryNodeSetShadeSmooth, GeometryNodeSetSplineCyclic, GeometryNodeSetSplineResolution, GeometryNodeSimulationInput, GeometryNodeSimulationOutput, GeometryNodeSortElements, GeometryNodeSplineLength, GeometryNodeSplineParameter, GeometryNodeSplitEdges, GeometryNodeSplitToInstances, GeometryNodeStoreNamedAttribute, GeometryNodeStoreNamedGrid, GeometryNodeStringJoin, GeometryNodeStringToCurves, GeometryNodeSubdivideCurve, GeometryNodeSubdivideMesh, GeometryNodeSubdivisionSurface, GeometryNodeSwitch, GeometryNodeTool3DCursor, GeometryNodeToolActiveElement, GeometryNodeToolFaceSet, GeometryNodeToolMousePosition, GeometryNodeToolSelection, GeometryNodeToolSetFaceSet, GeometryNodeToolSetSelection, GeometryNodeTransform, GeometryNodeTranslateInstances, GeometryNodeTriangulate, GeometryNodeTrimCurve, GeometryNodeUVPackIslands, GeometryNodeUVUnwrap, GeometryNodeVertexOfCorner, GeometryNodeViewer, GeometryNodeViewportTransform, GeometryNodeVolumeCube, GeometryNodeVolumeToMesh, GeometryNodeWarning

**class** bpy.types.GeometryNode(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.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.outputs`
- `Node.bl_static_type`
- `Node.internal_links`
- `Node.bl_width_default`
- `Node.parent`
- `Node.bl_width_min`
- `Node.warning_propagation`
- `Node.bl_width_max`
- `Node.use_custom_color`
- `Node.bl_height_default`
- `Node.color`
- `Node.bl_height_min`
- `Node.color_tag`
- `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`

## References

- `GeometryNodeForeachGeometryElementInput.pair_with_output`
- `GeometryNodeSimulationInput.pair_with_output`
- `GeometryNodeRepeatInput.pair_with_output`