

3.2 IFC types

| cadwork element type | Application | IFC type |
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| Beam | <p>An <i>IfcMember</i> is a structural element that is used to carry loads between or beyond support points. It is not necessary for it to be load-bearing. The orientation of the member (horizontal, vertical or inclined) is not relevant for its definition (in contrast to <i>IfcBeam</i> and <i>IfcColumn</i>).</p> <p>Application examples: Struts, studs, beams, roof components, framing timber, etc.</p> | IfcMember |
| Beam | <p>An <i>IfcBeam</i> is a horizontal or almost horizontal component that can be loaded primarily by bending.</p> <p>Application examples: Beams, girts, purlins...</p> | IfcBeam |
| Beam | <p>An <i>IfcColumn</i> is a vertical or near-vertical component that transfers the weight of the structure above it to other structural elements below it through pressure. However, it is not necessary for it to be load-bearing.</p> <p>Application examples: Posts, columns,...</p> | IfcColumn |

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| Panel | <p>An <i>IfcPlate</i> is a planar and often flat part with a constant thickness. A panel can be a structural part that carries loads between or beyond support points, but it does not have to be load-bearing. The position of the panel (horizontal, vertical or inclined) is not relevant for its definition (in contrast to <i>IfcWall</i> and <i>IfcSlab</i> (as a floor slab)).</p> <p>Application example: Cladding, lining,...</p> | IfcPlate |
| Panel | <p>An <i>IfcFooting</i> is a part of the foundation of a structure that distributes and transfers the load to the ground. A foundation is also known as a shallow foundation, where the loads are transferred into the ground close to the surface.</p> <p>Application example: Foundation</p> | IfcFooting |
| Panel | <p>An <i>IfcSlab</i> is a component of construction that normally encloses a room vertically. The panel can form the lower support structure (Floor) or the upper structure (Roof slab) in any room in a building. It should be noted that only the core or structural part of this construction is considered as <i>IfcSlab</i>.</p> <p>The upper finish (Flooring, roof cladding) and the lower finish (Soffit, Ceiling, suspended ceiling) are regarded as a covering.</p> <p>Application examples: Ceiling- and roof elements, floor slabs,...</p> | IfcSlab |

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| Panel, Surface, Auxiliary element | <p>Definition for elements that cover a part of another element and are dependent on this other element.</p> <p>Application examples: Surface finish, coatings, treatments,...</p> | IfcCovering |
| Panel | <p>Curtain wall, non-load-bearing wall that stands on the outside of a building and encloses it.</p> <p>Application example: Curtain wall</p> | IfcCurtainWall |
| Panel | <p>The wall is a vertical construction that can delimit or divide rooms. Walls are usually vertical or almost vertical, flat elements that are often designed to absorb static loads. However, a wall does not have to be load-bearing</p> <p>Application example: Internal or external walls</p> | IfcWall |
| Room | <p>A room represents an actual or theoretically limited area or volume. Rooms are areas or volumes that provide certain functions within a building.</p> | IfcSpace |
| Opening | <p>The opening element stands for openings (window, door opening).</p> <p>Application example: Window and door openings</p> | IfcOpeningElement |

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| Axis (CA, Drilling), Auxiliary element | <ul style="list-style-type: none"> • Glued joint: A fastening joint where glue is used to join elements together. • Weld seam: A weld seam that is used to join components together. • Grout: Mortar used to join construction elements. The strength of the joint can be taken into account in calculations. <p>Application example: Welds, glued joints, grouts,...</p> | IfcFastener |
| Window variant | <p>Construction for closing a vertical or almost vertical opening in a wall or pitched roof, which lets in light and possibly fresh air.</p> <p>Application example: Windows</p> | IfcWindow |
| Door variant | <p>Construction for closing an opening that is primarily intended for access with hinge, turn or slide operation.</p> <p>Application example: Doors</p> | IfcDoor |
| Stairs | <p>A vertical passageway that allows occupants to walk (step) from one floor level to another floor level at a different height. A landing may be included as an intermediate floor slab.</p> <p>Application example: Stairs</p> | IfcStair |
| Stairs (Beam/Panel) | <p>The steps and any stringers are included in this object.</p> | IfcStairFlight |

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| Circular MEP | <p>The distribution flow element IfcFlowSegment defines the occurrence of a segment of a flow distribution system that is typically straight and contiguous and has two connections (e.g. a section of a pipe or duct).</p> <p>Application example: Cables, conduits</p> | IfcFlowSegment |
| Various | <p>The railing is a frame construction that is used on circulation areas and on some room boundaries instead of walls or as a supplement to walls.</p> | IfcRailing |
| Various | <p>The BuildingElementProxy type is to be used to exchange special types of building elements for which there is not yet a semantic definition in the current IFC release.</p> <p>Application example: Indeterminate components not classified in the IFC schema</p> | IfcBuildingElementProxy |

Further IFC types can be selected under Modify -> Attributes -> BIM -> IFC Type.
The documented IFC types can be found in the IFC documentation of building-smart.
[IFC entities list](#)

IFC type assignments under User settings -> Predefine list of attributes

