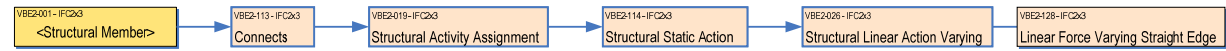


IFC Release Specific Concept Description (IFC2x3)

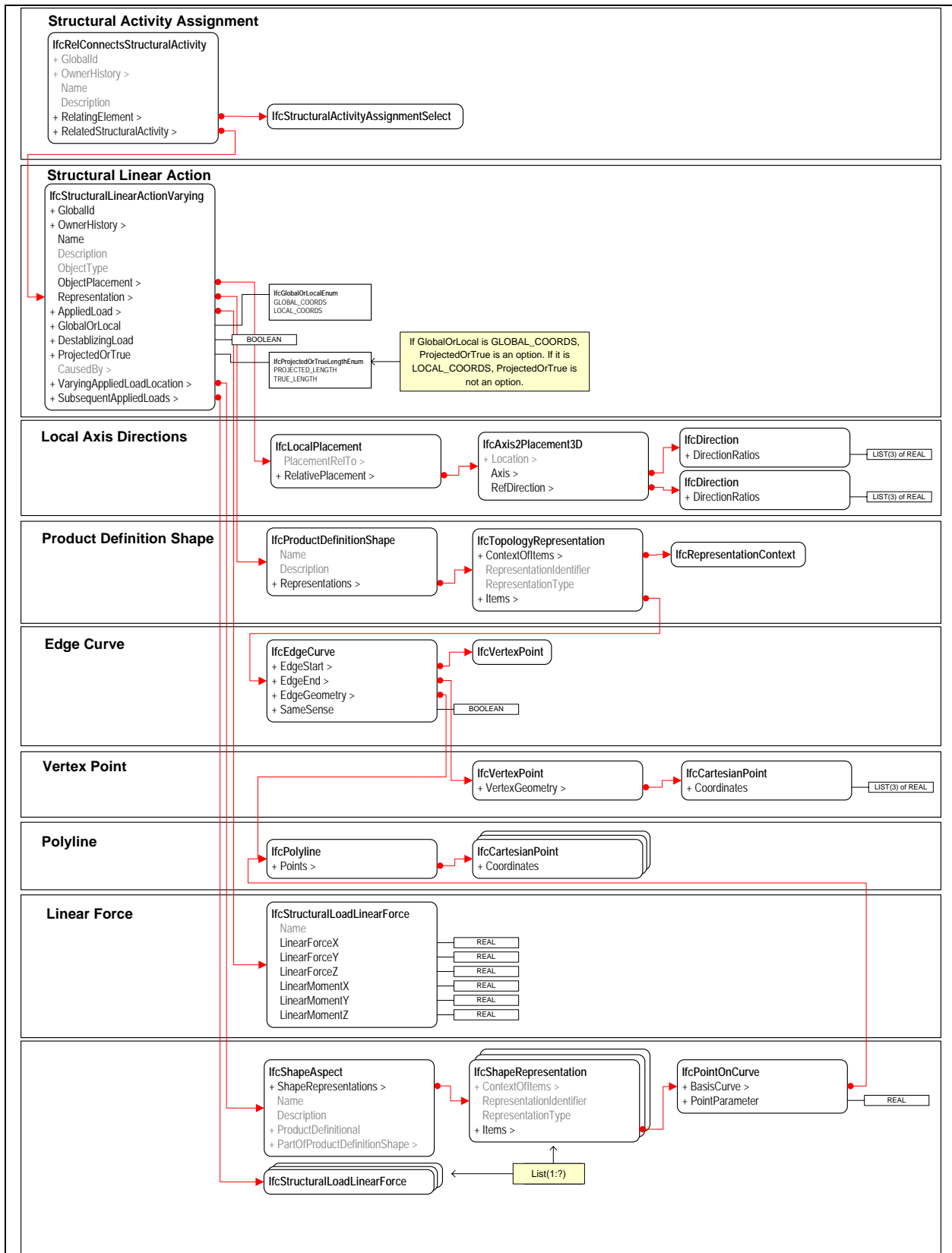
Linear Force Varying Straight Edge

Reference	VBE2-128	Version	1.0	Status	Draft
Relationships	Implements general concept VBE2-231 "Linear Force Varying"				
History	Created 23.10.2006				
Authors	Sakari Lehtinen				
Document Owner	Tampere University of Technology				

Usage in view definition diagram



Instantiation diagram



Implementation agreements

- *GlobalID*. Providing a GUID is mandatory. For `IfcRelConnectsStructuralActivity` the GUID is allowed to change.
- *OwnerHistory*. Providing an `OwnerHistory` is mandatory, but it is allowed to use dummy data in the owner history.
- *Name*. Freely used string. For `IfcRelConnectsStructuralActivity` and `IfcStructuralLoadLinearForce`, not used.
- *Description*. Not used.
- *ObjectType*. Not used.

- *ObjectPlacement* is used to define the direction of the local z-axis.
- *Representation*. IfcEdgeCurve for topology representation is used. Polyline may have more than two nodes.
- If *GlobalOrLocal* is GLOBAL_COORDS then *ProjectedOrTrue* is used. If *GlobalOrLocal* is LOCAL_COORDS then *ProjectedOrTrue* is not used.
- *Caused by*. Not used.
- *VaryingAppliedLoadLocation and SubsequentAppliedLoads*. Each list member within the list of *ShapeRepresentations* corresponds to the list member (at same position) of the list *VaryingAppliedLoads*, and provides the position of the applied load. At least two applied load values shall be given, the distribution is constructed by linear interpolation. The *AppliedLoad* It is used as the first list member of the derived list *VaryingAppliedLoads*.

Additional information

P21 example

```
#39=IFCGEOMETRICREPRESENTATIONCONTEXT('3D Model', 'Design', 3, $, #64, $);
#1561=IFCRELCONNECTSSTRUCTURALACTIVITY('OzCkz3po02ENFce1dtNw1c', #2, $, $, #21, #10);
#21=IFCSTRUCTURALSURFACEMEMBER('2tviSvpgIFhCONMm0e1p_7', #2, 'Example surface member', $, $, #1797, #1798, .SHELL., 200, 0);
#10=IFCSTRUCTURALLINEARACTIONVARYING('2u6Aq3yeJ094UEdv_Q34kp', #2, 'Example action', $, $, #1560, #1590, #1562, .GLOBAL_COORDS., .F., .TRUE_LENGTH., $, #50, (#1561, #1562, #1563, #1564, #1565));
#44=IFCDIRECTION((1, 0, 0, 0, 0, 0));
#43=IFCDIRECTION((0, 0, 0, 0, 1, 0));
#94=IFCAXIS2PLACEMENT3D($, #44, #43);
#1560=IFCLOCALPLACEMENT($, #94);
#1625=IFCCARTESIANPOINT((-100, 0, -12100, 0, 2680, 0));
#1624=IFCVERTEXPOINT(#1625);
#1627=IFCCARTESIANPOINT((-100, 0, 100, 0, 2680, 0));
#1626=IFCVERTEXPOINT(#1627);
#1648=IFCPOLYLINE((#1627, #1625));
#1647=IFCEDGECURVE(#1626, #1624, #1648, .T.);
#1646=IFCTOPOLOGYREPRESENTATION(#77, $, 'Edge', (#1647));
#1590=IFCPRODUCTREPRESENTATION($, $, (#1646));
#50=IFCSHAPEASPECT($, #51, #52, #53, #54, $, $, $, $);
#51=IFCSHAPEPRESENTATION($, $, (#61));
#52=IFCSHAPEPRESENTATION($, $, (#62));
#53=IFCSHAPEPRESENTATION($, $, (#63));
#54=IFCSHAPEPRESENTATION($, $, (#64));
#61=IFCPOINTONCURVE(#70, 0, 35);
#62=IFCPOINTONCURVE(#70, 0, 35);
#63=IFCPOINTONCURVE(#70, 0, 65);
#64=IFCPOINTONCURVE(#70, 0, 85);
#1425=IFCCARTESIANPOINT((-100, 0, -12100, 0, 2680, 0));
#1424=IFCVERTEXPOINT(#1425);
#1427=IFCCARTESIANPOINT((-100, 0, 100, 0, 2680, 0));
#1426=IFCVERTEXPOINT(#1427);
#70=IFCPOLYLINE((#1427, #1425));
#1561=IFCSTRUCTURALLOADLINEARFORCE($, 1000, 0, 1000, 0, 1000, 0, 1000, 0, 1000, 0);
#1562=IFCSTRUCTURALLOADLINEARFORCE($, 1000, 0, 1000, 0, 1000, 0, 1000, 0, 1000, 0);
#1563=IFCSTRUCTURALLOADLINEARFORCE($, 1000, 0, 1000, 0, 1000, 0, 1000, 0, 1000, 0);
#1564=IFCSTRUCTURALLOADLINEARFORCE($, 1000, 0, 1000, 0, 1000, 0, 1000, 0, 1000, 0);
#1565=IFCSTRUCTURALLOADLINEARFORCE($, 1000, 0, 1000, 0, 1000, 0, 1000, 0, 1000, 0);
```

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 The content of this document has to be certified by the IAI before becoming part of an official IFC Model View Definition.