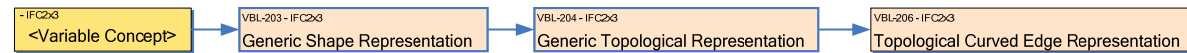


# IFC Release Specific Concept Description (IFC2x3)

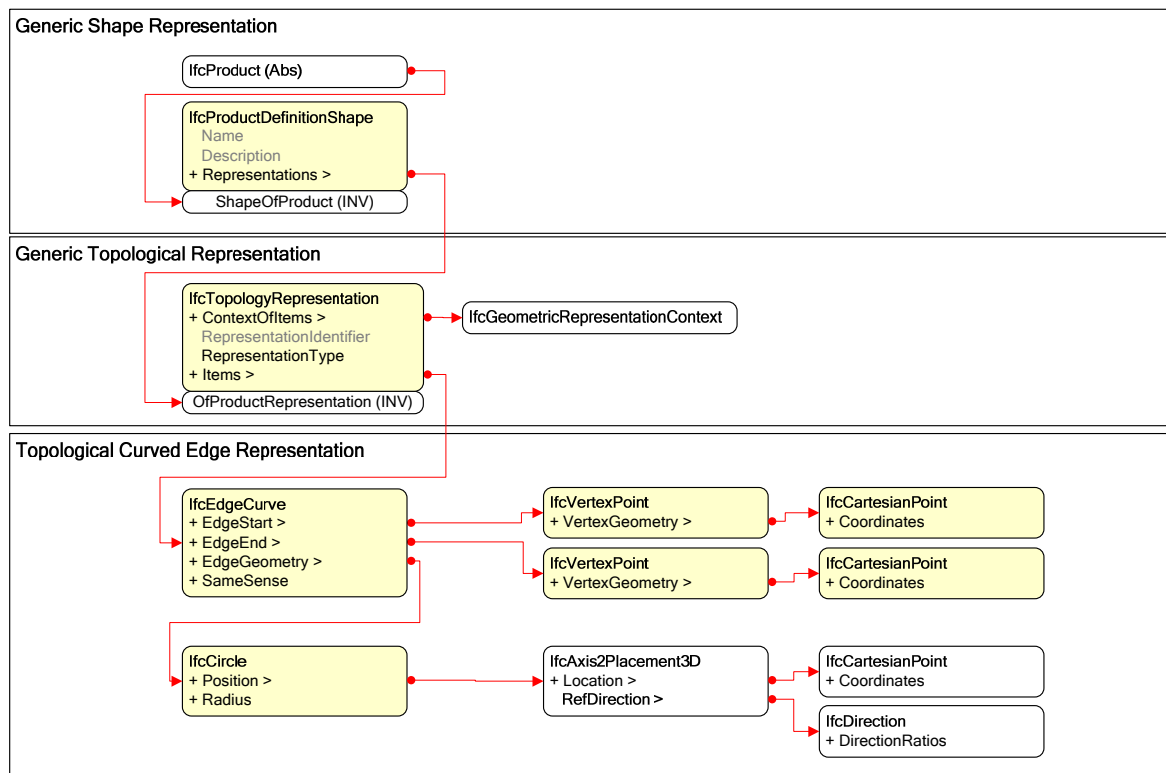
## Topological Curve Edge Representation

Reference	VBL-206	Version	2	Status	Proposal
Relationships	Implements general concept 'Curved Edge Representation'.				
History	Created 23.10.2006, improved 28.9.2007				
Authors	Sakari Lehtinen				
Document Owner	Virtual Building Laboratory @ TUT (sakari.lehtinen@tut.fi)				

### Usage in view definition diagram



### Instantiation diagram



### Implementation agreements

#### IfcProductDefinitionShape

Attribute	Implementation agreements
Name	Not used.
Description	Not used.
Representations	Must be one IfcTopologyRepresentation

#### IfcTopologyRepresentation

Attribute	Implementation agreements
ContextOfItems	N/A
RepresentationIdentifier	Not used.
RepresentationType	Must be 'Edge'
Items	Must be IfcEdgeCurve.

#### IfcEdgeCurve

Attribute	Implementation agreements
EdgeStart	N/A
EdgeEnd	N/A
EdgeGeometry	Must be IfcCircle.

SameSense	N/A
IfcVertexPoint	
Attribute	Implementation agreements
VertexGeometry	Must be IfcCartesianPoint
IfcCartesianPoint	
Attribute	Implementation agreements
Coordinates	Must be three dimensions.
Dim	N/A
IfcCircle	
Attribute	Implementation agreements
Dim	N/A
Position	Must be IfcAxis2Placement3D
Radius	N/A

### Additional information

#### P21 example

```
#9= IFCCARTESIANPOINT((0.,0.,0.));
#11= IFCDIRECTION((0.,0.,1.));
#13= IFCDIRECTION((1.,0.,0.));
#15= IFCAxis2Placement3D(#9,#11,#13);
#41= IFCDIRECTION((0.,0.,1.));
#43= IFCGEOMETRICREPRESENTATIONCONTEXT($,$,3,$,#15,#41);

#246= IFCSTRUCTURALCURVEMEMBER('21Iekk$zf4khCF1qWGDGVP',#28,'1',$,$,#257,#274,.NOTDEFINED.);
#255= IFCCARTESIANPOINT((6.,0.,-2.2737368E-15));
#257= IFCLocalPlacement($,#263);
#259= IFCDIRECTION((0.,-1.,0.));
#261= IFCDIRECTION((1.,0.,0.));
#263= IFCAxis2Placement3D(#255,#259,#261);
#264= IFCCARTESIANPOINT((6.,0.,-2.2737368E-15));
#266= IFcVertexPoint(#264);
#267= IFCCARTESIANPOINT((10.,0.,-2.2737368E-15));
#269= IFcVertexPoint(#267);
#369= IFCDIRECTION((0.,0.,1.));
#373= IFCCARTESIANPOINT((8.,0.,0));
#377= IFCAxis2Placement3D(#373,#369,$);
#380= IFCCIRCLE(#377,2.);
#270= IFCEdgeCurve(#266,#269,#380,.T.);
#271= IFCTopologyRepresentation(#43,$,'Edge',(#270));
#274= IFcProductDefinitionShape($,$,(#271));
```

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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.