

# IFC Release Specific Concept Description (IFC2x3)

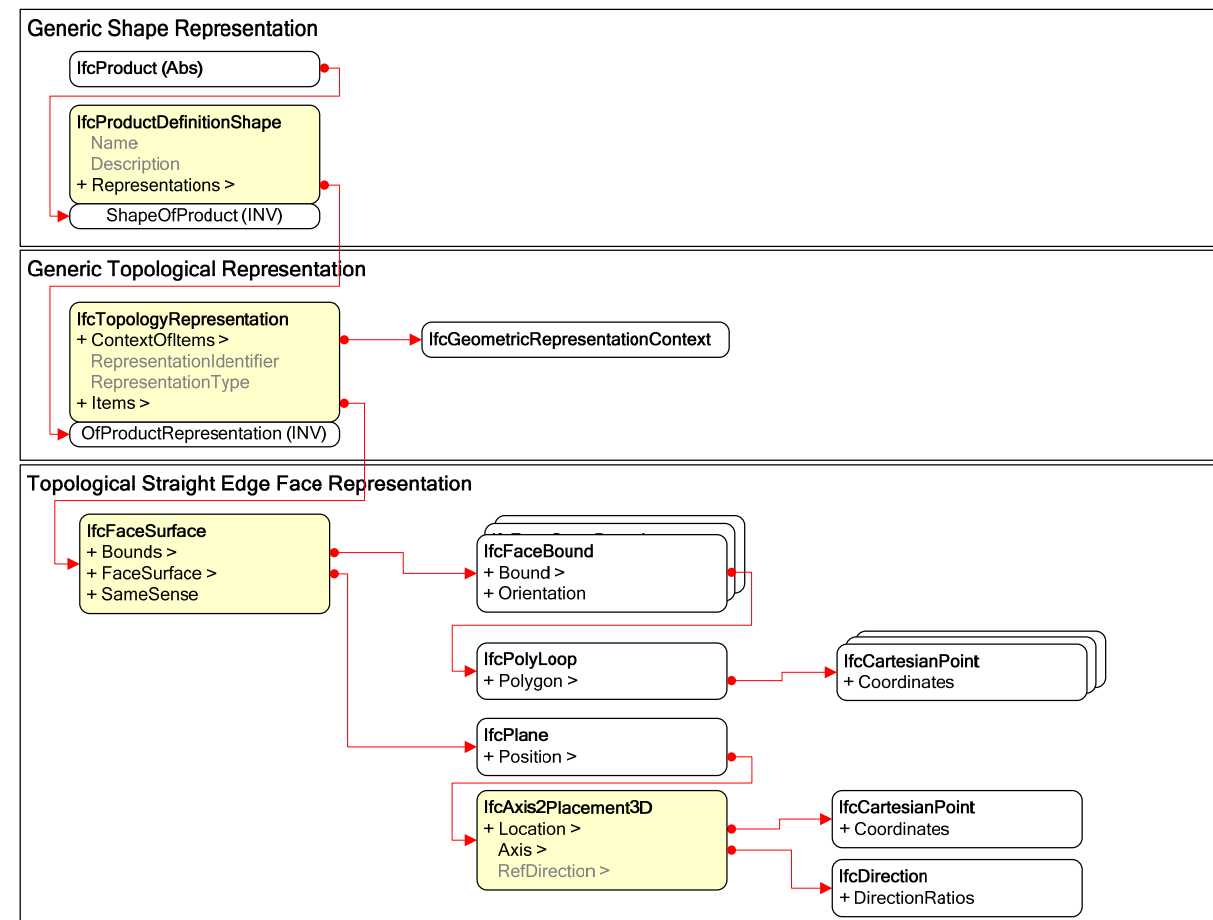
## Topological Straight Edge Face Representation

<b>Reference</b>	VBL-218	<b>Version</b>	2	<b>Status</b>	Proposal
<b>Relationships</b>	Implements general concept 'Surface Representation Straight Edge'.				
<b>History</b>	Created 23.10.2006, improved 28.9.2007				
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### Usage in view definition diagram



### Instantiation diagram



### Implementation agreements

#### IfcProductDefinitionShape

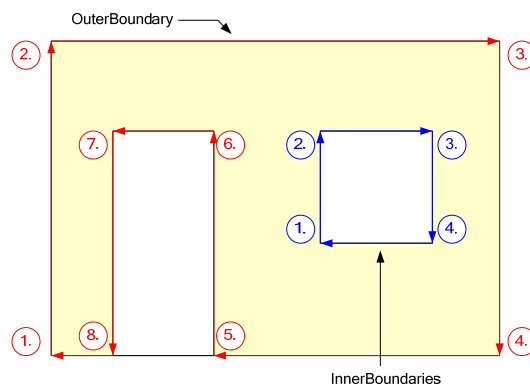
Attribute	Implementation agreements
Name	Reserved.
Description	Reserved.
Representations	Must be one IfcTopologyRepresentation.

#### IfcTopologyRepresentation

Attribute	Implementation agreements
ContextOfItems	N/A
RepresentationIdentifier	Not used.
RepresentationType	Must be 'Face'
Items	Must be one IfcFaceSurface.

#### IfcFaceSurface

Attribute	Implementation agreements
Bounds	Must be one IfcFaceOuterBound. Optionally also IfcFaceBounds as inner boundaries of the face.
FaceSurface	Must be IfcPlane.
SameSense	N/A
IfcFaceBound	
Attribute	Implementation agreements
Bound	Must be IfcPolyLoop.
Orientation	N/A
IfcAxis2Placement3D	
Attribute	Implementation agreements
Location	N/A
Dim	N/A
Axis	N/A
RefDirection	Not used.
P	N/A



## Additional information

### P21 example

```
#1949=IFCSTRUCTURALSURFACEMEMBER('2tvI$vpGIFhc0NmM0e1p_7',#2,'Example Surfacemember',$,$,#1797,#1798,.SHELL.,200.0);

#1950=IFCCARTESIANPOINT((7100.0,100.0,0.0));
#1951=IFCCARTESIANPOINT((7100.0,-113.0,0.0));
#1952=IFCCARTESIANPOINT((7100.0,-113.0,2100.0));
#1953=IFCCARTESIANPOINT((7100.0,-1113.0,2100.0));
#1954=IFCCARTESIANPOINT((7100.0,-1113.0,0.0));
#1955=IFCCARTESIANPOINT((7100.0,-12100.0,0.0));
#1956=IFCCARTESIANPOINT((7100.0,-12100.0,2680.0));
#1957=IFCCARTESIANPOINT((7100.0,100.0,2680.0));
#1949=IFCPOLYLOOP((#1950,#1951,#1952,#1953,#1954,#1955,#1956,#1957,));
#1776=IFCFACEOUTERBOUND(#1949,.T.);

#2109=IFCCARTESIANPOINT((7100.0,-6435.0,480.0));
#2108=IFCCARTESIANPOINT((7100.0,-7623.0,480.0));
#2107=IFCCARTESIANPOINT((7100.0,-7623.0,2100.0));
#2106=IFCCARTESIANPOINT((7100.0,-6435.0,2100.0));
#2110=IFCPOLYLOOP((#2109,#2108,#2107,#2106));
#1778=IFCFACEBOUND(#2110,.T.);

#2043=IFCCARTESIANPOINT((7100.0,100.0,0.0));
#2044=IFCDIRECTION((-1.0,0.0,0.0));
#2045=IFCDIRECTION((0.0,-1.0,0.0));
#1954=IFCAXIS2PLACEMENT3D(#2043,#2044,#2045);
#1780=IFCPLANE(#1954);

#1768=IFCFACESURFACE((#1776,#1778),#1780,.T.);
#1948=IFCTOPOLOGYREPRESENTATION(#43,$,'Face',(#1768));
#1798=IFCPRODUCTDEFINITIONSHAPE($,$,(#1948));
```

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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.