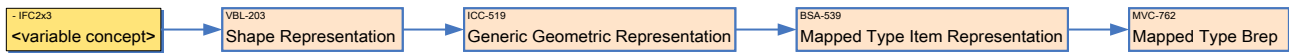


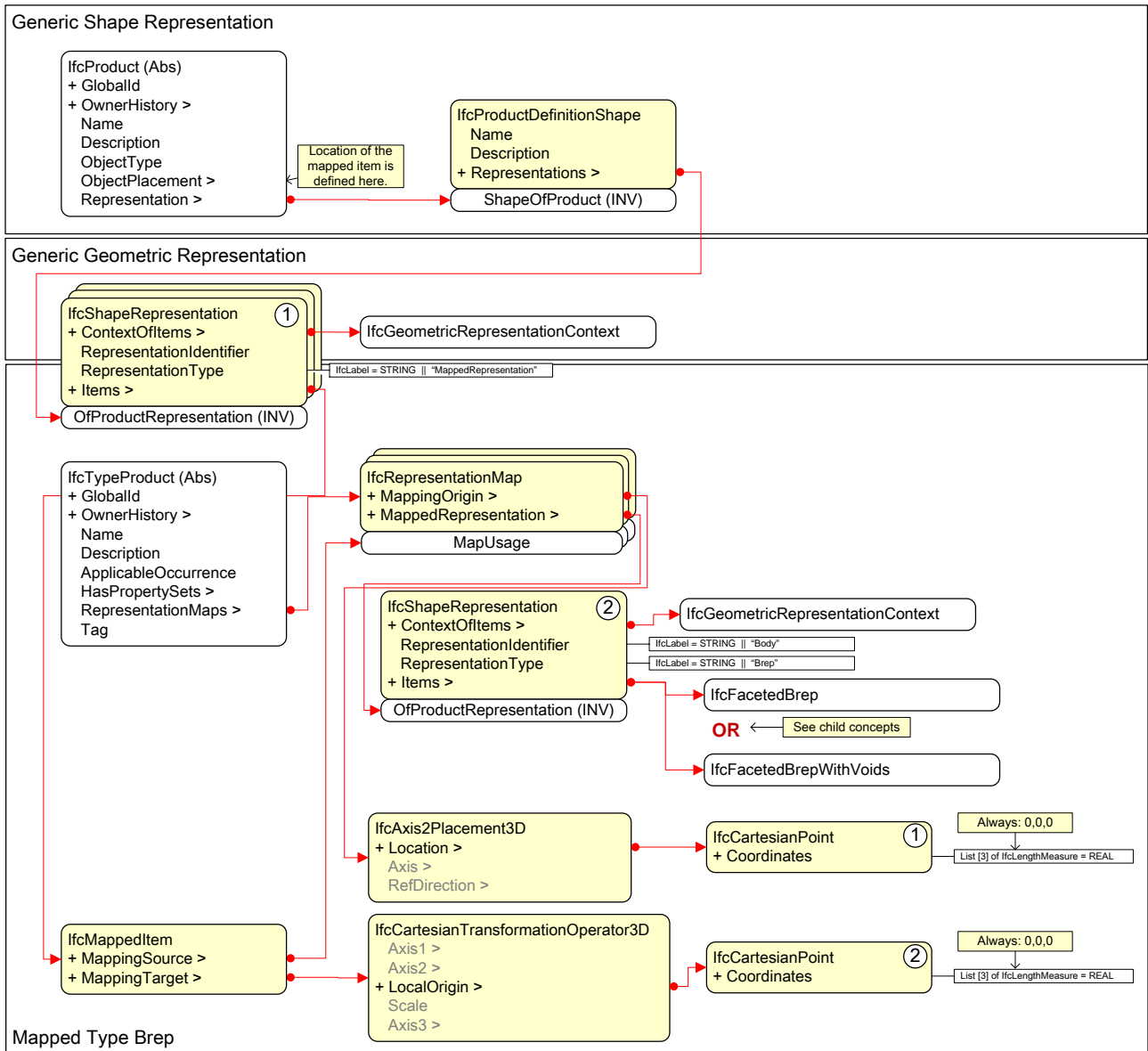
Mapped Type Brep

Reference	MVC-762	Version	2	Status	Candidate
Relationships					
History	Created 30-Apr-10; Promoted to Shared Concept on 11-May-11				
Authors	Richard See (Digital Alchemy)				
Document Owner	BLIS Consortium (www.blis-project.org)				

Usage in view definition diagram



Instantiation diagram



Implementer Agreements

Subtypes of IfcProduct and IfcTypeProduct to be used are defined in the MVD-diagrams.

IfcProductDefinitionShape	
Attribute	Implementation agreements
Name	Optional. IfcLabel = STRING
Description	Optional. IfcText = STRING
Representations	Required. IfcShapeRepresentation.
IfcShapeRepresentation(1)	
Attribute	Implementation agreements
ContextOfItems	Required. IfcRepresentationContext
RepresentationIdentifier	Optional. IfcLabel = STRING
RepresentationType	Required. IfcLabel = STRING "MappedRepresentation"
Items	Required. IfcMappedItem. One IfcMappedItem per IfcShapeRepresentation.
IfcMappedItem	
Attribute	Implementation agreements
MappingSource	Required. IfcRepresentationMap
MappingTarget	Required. IfcCartesianTransformationOperator3D.
IfcRepresentationMap	
Attribute	Implementation agreements
MappingOrigin	Required. IfcAxis2Placement3D.
MappedRepresentation	Required. IfcShapeRepresentation per IfcRepresentationMap. Any kind of geometric representation allowed to the IfcProduct' subtype in question is allowed.
IfcShapeRepresentation(2)	
Attribute	Implementation agreements
ContextOfItems	Required. IfcGeometricRepresentationContext.
RepresentationIdentifier	Required. IfcLabel = STRING "Body"
RepresentationType	Required. IfcLabel = STRING "Brep"
Items	Optional. IfcRepresentationItem.
IfcAxis2Placement3D	
Attribute	Implementation agreements
Location	Required. IfcCartesianPoint.
Axis	Optional. IfcDirection. If Axis is omitted, this Axis direction is taken from the geometric coordinate system.
RefDirection	Optional. IfcDirection. If RefDirection is omitted, this Direction is taken from the geometric coordinate system.
IfcCartesianTransformationOperator3D	
Attribute	Implementation agreements
Axis1	Optional. IfcDirection.
Axis2	Optional. IfcDirection.
LocalOrigin	Required. IfcCartesianPoint.
Scale	Optional. Real.
Axis3	Optional. IfcDirection.
IfcCartesianPoint (1)	
Attribute	Implementation agreements
Coordinates	Required. Always (0,0,0). The placement of the geometric block is done by the placement of the instance.
IfcCartesianPoint (2)	
Attribute	Implementation agreements
Coordinates	Required. Always (0,0,0). The placement of the geometric block is done by the placement of the instance.
IfcTypeProduct (Abs)	
Attribute	Implementation agreements
GlobalId	Required. See MVD Concept VBL-170
OwnerHistory	Required. See MVD Concept VBL-156
Name	Optional. IfcLabel = STRING
Description	Optional. IfcText = STRING
ApplicableOccurrence	Optional. IfcLabel = STRING
HasPropertySets	Optional. Set [1:?] IfcPropertySetDefinition
RepresentationMaps	Required. IfcRepresentationMaps. One per representation type.

Tag	Optional. IfcLabel = STRING
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