IFC Release Specific Concept Description (IFC 2x3**)** Space Contained in Building					
Reference	PCI-045	**Version**	1.1	**Status**	Draft
Relationships	Spatial Hierarchy				
History	Revised Nov 13, 2012				
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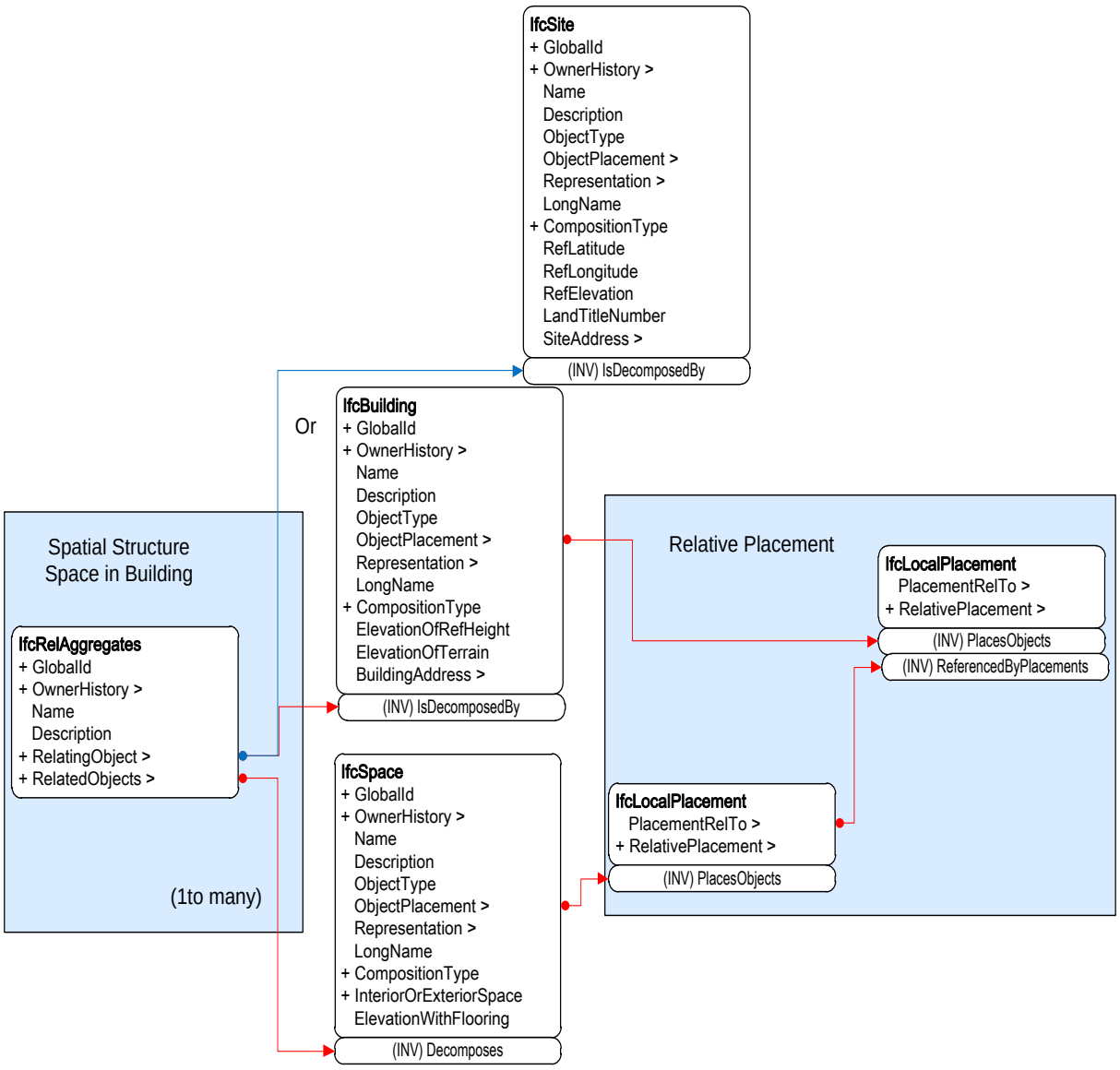
Usage in view definition diagram

Instantiation diagram



Implementation agreements

Space is an Object with many attributes and a bounded designated region, assigned to a Story within a Building. Spaces are optional in the Spatial Containment hierarchy. Spaces are considered part of the Spatial Containment hierarchy because it supports accessing of objects entirely within a Space.

Spaces at Building or Site level.

IfcRelAggregates

Attribute	Implementation agreements
GlobalId	Must be provided
OwnerHistory	Must be provided, but may contain dummy data

Name	<Open>
Description	<Open>
RelatingObject	Must be an IfcBuilding entity
RelatedObject	Must be an IfcSpace entity

IfcLocalPlacement

Attribute	Implementation agreements
PlacementRelTo	Optional. The *PlacementRelTo* relationship shall point to the local placement of the *IfcSpatialStructureElement* of type "IfcBuilding", if relative placement is used.
RelativePlacement	If the relative placement is not used, the absolute placement is defined within the world coordinate system.

IfcBuilding

Attribute	Implementation agreements
GlobalId	Must be provided
OwnerHistory	Must be provided, but may contain dummy data
Name	Optional
Description	<Open>
ObjectType	Optional
ObjectPlacement	Optional
Representation	Is a subtype of IfcProductrepresentation
LongName	Optional. IfcLabel
CompositionType	Subtype of IfcElementCompositionEnum
ElevationOfRefHeight	Elevation above sea level of the reference height used for all storey elevation measures, equals to height 0.0. It is usually the ground floor level. Must be IfcLengthMeasure
ElevationOfTerrain	Elevation above the minimal terrain level around the foot print of the building, given in elevation above sea level. Must be IfcLengthMeasure
BuildingAddress	Address given to the building for postal purposes. Must be IfcPostalAddress

IfcSpace

Attribute	Implementation agreements
GlobalId	Must be provided
OwnerHistory	Must be provided, but may contain dummy data
Name	Space.Name should be assigned.
Description	<Open>
ObjectType	Optional
ObjectPlacement	Optional
Representation	Is a subtype of IfcProductrepresentation
LongName	Optional. IfcLabel
CompositionType	Subtype of IfcElementCompositionEnum
InteriorOrExteriorSpace	Optional. Enumeration of type IfcInternalOrExternalEnum
ElevationWithFlooring	Optional. Level of flooring of this space; the average shall be taken, if the space ground surface is sloping or if there are level differences within this space.

Example: Part21 file

Part 21 File for Space contained in Building

#13= IFCOWNERHISTORY(#12,#5,$,.NOCHANGE.,$,$,$,1242151847);
#74= IFCLOCALPLACEMENT(#61,#44);
#87= IFCAXIS2PLACEMENT3D(#40,#36,#28);
#90= IFCLOCALPLACEMENT(#74,#87);
#93= IFCBUILDING('2lMYiz6PH5nPbYgp0myV00',#13,'Main Building',$,$,#90,$,$,.ELEMENT.,$,$,$);
#292= IFCCARTESIANPOINT((-3180.2197,-1094.3327,0.));
#296= IFCAXIS2PLACEMENT3D(#292,#36,#28);
#299= IFCLOCALPLACEMENT(#90,#296);
#302= IFCSPACE('1bJRitt695SP_HdGztqaA_',#13,'ElectricalStorageArea',$,$,#299,$,$,$,$,$);
#312= IFCRELAGGREGATES('0RtLL773f4fAE0M7lNgeGS',#13,'BuildingContainer','BuildingContainer for Spaces',#93,(#302));