IFC Release Specific Concept Description (IFC 2x3) Building Storey Contained in Building					
Reference	PCI-044	Version	1.1	Status	Draft
Relationships	Spatial Hierarchy				
History	Revised Nov 13, 2012				
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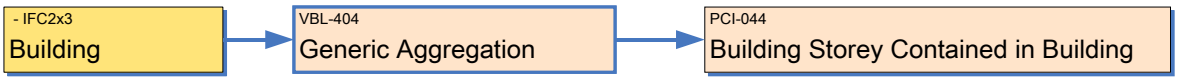
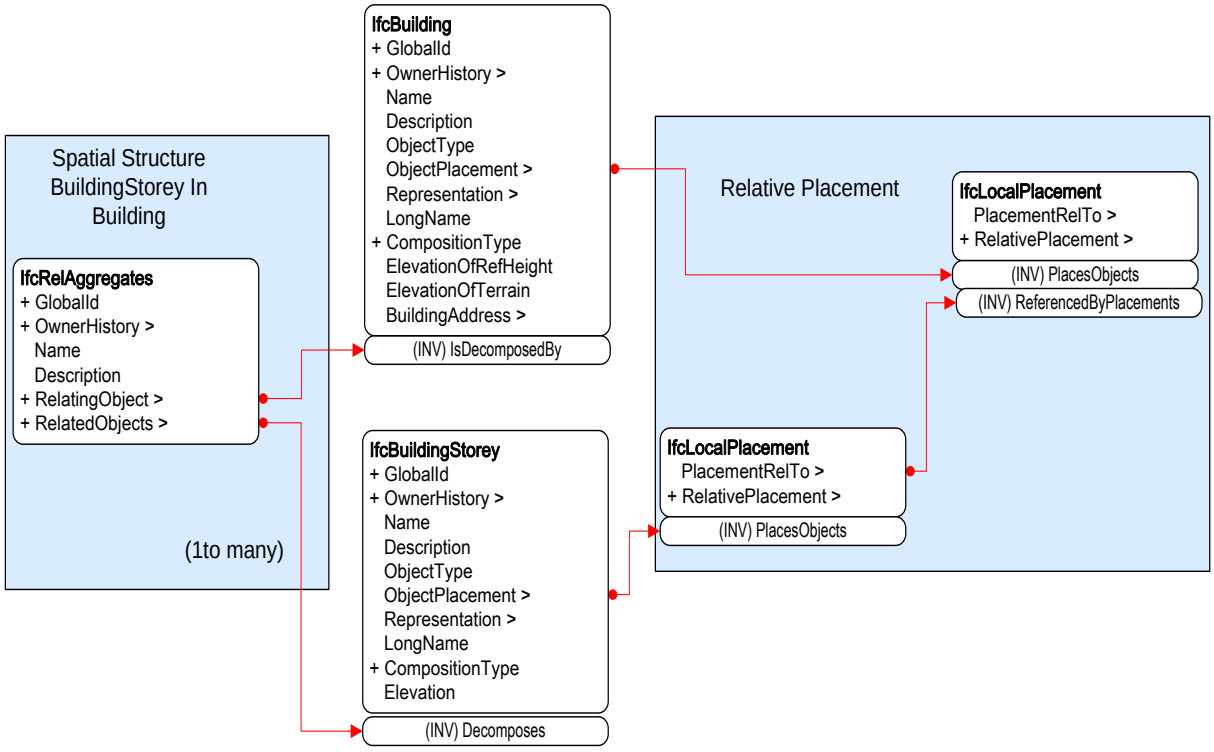
Document Owner	GA Tech and Technion Precast NBIMS Team				

Usage in view definition diagram



Instantiation diagram



Implementation agreements

BuildingStory provides a basic spatial classification within the spatial structure hierarchy for the components of a Building. BuildingStory is only defined if there is a Building. A BuildingStory has an elevation, defining the approximate height relative to others. The heights and thus the Storeys are ordered. Building Story is considered the primary receiver of Spaces.

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 IfcBuildingStorey entity

IfcLocalPlacement

Attribute	Implementation agreements
PlacementRelTo	Optional. The *PlacementRelTo* relationship shall point to the local placement of the *IfcSpatialStructureElement* of type "IfcBuilding", or of type IfcBuildingStorey (e.g. to position a building storey relative to a building storey complex, or a partial building storey to a building storey), 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

IfcBuildingStorey

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
Elevation	Optional. Elevation of the base of this storey, relative to the 0,00 internal reference height of the building. The 0.00 level is given by the absolute above sea level height by the ElevationOfRefHeight attribute given at IfcBuilding.

Example: Part21 file

Part 21 File for BuildingStorey contained in Building

```
#46= IFCPROJECT('3AWw8wyvz14QTe3PMyD$a8',#20,'Project','Description','Object
type','LongName','Phase',(#40,#43),#18);
#53= IFCLOCALPLACEMENT($,#37);
#56= IFCSITE('2$umvcgY11QPrba$dmh585',#20,'Undefined',$,$,#53,$,$,.ELEMENT.,$,$,0.,$,$);
#66= IFCLOCALPLACEMENT(#53,#37);
#69= IFCBUILDING('3tk6iR4IzDSuhkRrm3_5Bb',#20,'Undefined',$,$,#66,$,$,.ELEMENT.,$,$,$);
#79= IFCLOCALPLACEMENT(#66,#37);
#82= IFCBUILDINGSTOREY('0eOYgfP7bBKuiN8xQ7ES6h',#20,'Undefined',$,$,#79,$,$,.ELEMENT.,$);
#92= IFCCARTESIANPOINT((220.,602.5,2300.));
#96= IFCAXIS2PLACEMENT3D(#92,#33,#25);
#99= IFCLOCALPLACEMENT(#79,#96);
#3376= IFCRELAGGREGATES('3QM6ooNoz0lvFwZd5JedV9',#20,$,$,#69,(#82));
```