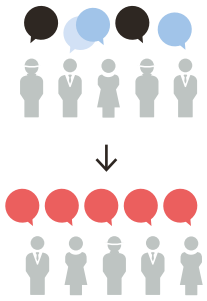
# BIM BASE IDS

ENABLING COLLABORATION

## 1. WHY WE EXCHANGE INFORMATION

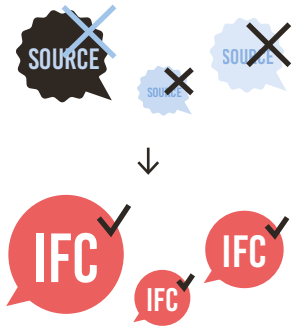
The purpose of unambiguous exchange is to (re)use building information about a construction efficiently and effectively.



TO SPEAK A COMMON LANGUAGE

## 2. HOW WE EXCHANGE INFORMATION

With the help of the IFC open data standard, we exchange information in a software-independent manner throughout the entire life cycle of a construction.

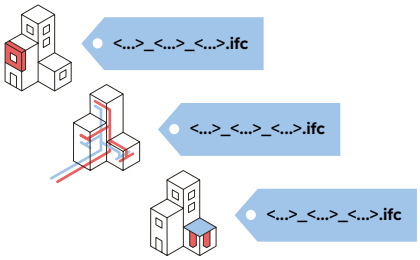



## 3. WHAT WE AGREE ON TO ENABLE COLLABORATION

In this chapter, we discuss how the structure of aspect models is set up, so that different aspect models become interchangeable and interpretable.

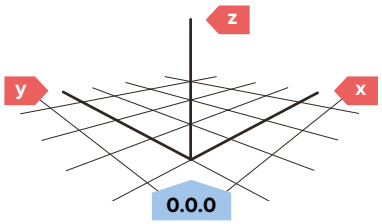
### 3.1 FILE NAME

- ✔ Always ensure uniform and consistent naming of aspect models within a project.



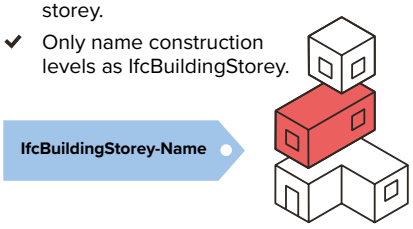

### 3.2 LOCAL POSITION

- ✔ Coordinate the local position of (all) the aspect models, close to the point of origin.



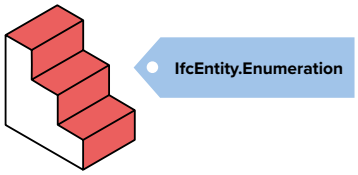

### 3.3 CONSTRUCTION LEVEL ARRANGEMENT AND NAMING

- ✔ Each aspect model uses a consistent naming convention.
- ✔ Assign all objects to the correct building storey.
- ✔ Only name construction levels as IfcBuildingStorey.



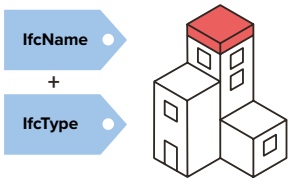

### 3.4 CORRECT USE OF ENTITIES

- ✔ Use the most appropriate Entity for the object and supplement it with a TypeEnumeration where possible.




### 3.5 STRUCTURE AND NAMING

- ✔ Consistently assign Name and Type properties to objects. The resulting combination clarifies what it represents.



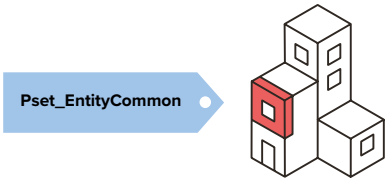

### 3.6 CLASSIFICATION SYSTEM

- ✔ Always assign objects a classification code, according to the latest published version used in the relevant country.


CLASSIFICATION CODE

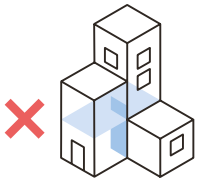
### 3.7 USE PROPERTY SETS

- ✔ When exchanging properties, use the PropertySets prescribed by buildingSMART in the international standard whenever possible.




### 3.8 DUPLICATES AND INTERSECTIONS

- ✔ Duplication within one aspect model is never allowed.
- ✔ As a principle, intersections of objects within one aspect model are not allowed.

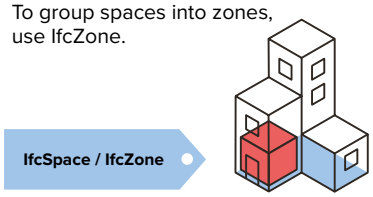


# 4. WHICH (MINIMUM) INFORMATION IS REQUIRED IN ONE OF THE ASPECT MODELS

Agree on what information is to be provided by whom and when. Start with the topics in this chapter and add to them if necessary.

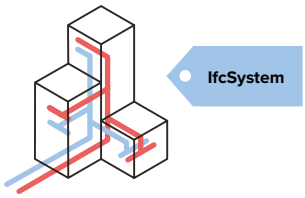
## 4.1 SPACES

- ✔ Spaces are: volumes and areas, enclosed by real or theoretical boundaries, with a function in a construction.
- ✔ Create IfcSpace from spaces and name the function.
- ✔ To group spaces into zones, use IfcZone.



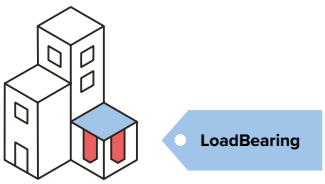

## 4.2 BUILDING SERVICES RELATED SYSTEMS

- ✔ Group installation objects belonging to the same system in an IfcSystem, when applicable.



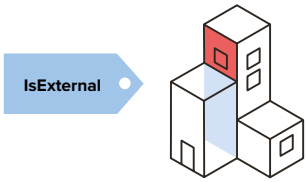

## 4.3 LOAD-BEARING / NON-LOAD-BEARING

- ✔ Indicate whether the property LoadBearing is TRUE or FALSE for objects, when applicable.



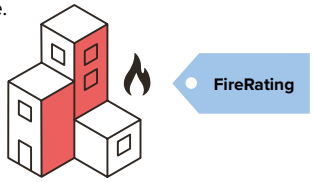

## 4.4 INTERNAL / EXTERNAL

- ✔ Indicate whether the property IsExternal is TRUE or FALSE for objects, when applicable.



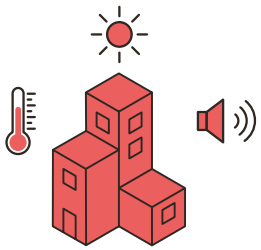

## 4.5 FIRE SAFETY

- ✔ For objects, when applicable, use FireRating (resistance to fire penetration and spread) values, and use FireRatingR (resistance time to failure).
- ✔ Use the FireRating property for the resistance to fire penetration and spread value.



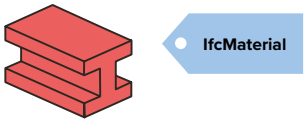

## 4.6 BUILDING PHYSICS PROPERTIES

- ✔ Incorporate the relevant building physics properties into the objects.



## 4.7 MATERIAL

- ✔ Assign a material (IfcMaterial) to all objects.
- ✔ In compositions, choose the dominant material.
- ✔ Be cautious with additional properties in the naming of the material.




## 4.8 PROJECT SPECIFIC

- ✔ Determine project-specific information required for the intended BIM applications and project objectives.