

# General attributes and properties in BIM models



0	29.10.2021	First issue of document		DG	OJH
Version	Date	Text		Prep by	Checked by
<b>Project number:</b> 1107304 / 1107305	<b>Issued by:</b> SB	<b>Project name:</b> Ocean Space Centre	<b>Code:</b> Å	<b>Document type:</b> Governing document	<b>Document code:</b> OSC-SB-Å-SD-00001
					<b>Version:</b> 0

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## 1 Introduction

This document is an annex to the document “OSC - Action plan for digitisation”. The purpose of this document is to define general attributes and parameters common in the project. The description of attributes and properties.

This document is to be updated with agreed changes throughout the project.

## 2 Attributes and parameters

All objects in the IFC file shall have attributes and parameters as described in this section. If there are inconsistencies with requirements in the provided database requirements, described as mvdXML or human readable, the database requirements take precedence.

### 2.1 Abstract IFC entities

There are several abstract IFC entities that have important functions in the IFC schema, i.e. hierarchical objects such as IfcProject, IfcSite, etc. The following attributes and properties must be included with the specified IFC entities:

Table 1 – Attributes and properties for abstract IFC entities

IFC entity	Attribute/property	Description
IfcProject	.Name	Statsbygg official Project Number
	.LongName	Project name (official)
	.Georeference	EPSG compound code is a unique code indicating the combination of geodetic datum, projection and height datum.
IfcSite	.Name	The official name of the property in the Cadastre [no: Eiendomsnavn]
	.LongName	Statsbygg property number [no. Statsbyggs Eiendomsnummer]
	.LandTitleNumber	The site shall contain the official ID of the Cadastre [no:Matrikkel]
IfcBuilding	.Name	A descriptive name of the building volume represented by the building object.
	.LongName	Statsbygg’s building nr. [no: Statsbyggs bygningsnummer]
	Pset_BuildingCommon .BuildingID	Building number assigned by the municipality.
IfcBuildingStorey	.Name	Storey number according to project naming scheme.
	.LongName	Storey name and number according to project naming scheme
	Pset_BuildingStoreyCommon .EntranceLevel	Indication whether this building storey is an entrance level to the building (TRUE), or (FALSE) if otherwise.
	Pset_BuildingStoreyCommon .AboveGround	Indication whether this building storey is fully above ground (TRUE), or below ground (FALSE), or partially above and below ground (UNKNOWN) - as in sloped terrain.

If the correct attribute/property value is not available “N/A” is to be used.

## 2.2 IFC entities representing built objects

### 2.2.1 Attributes

The following attributes shall be used for all objects with IFC entities representing built objects in the project, unless otherwise stated in machine interpretable requirements.

Table 2 – Attributes for built objects

Attribute	Description of value
IfcRoot.Name	Building component code (no: NS3457-8:2021 Komponentkode) + type code (three digit serial number). Example syntax AVA.001
IfcRoot.Description	User defined description of element type, its material and when applicable composite. Description shall communicate all properties relevant for cost and construction that are not communicated by other object properties.

### 2.2.2 Properties

There are several general properties that are required in the project. In the following different property sets and properties are listed. These are required for all models in the project.

#### Property set: OSC\_Process

Table 3 – General properties in property set OSC\_Process

Property	Description
.ControlArea	Describes the control area in which the object belongs.
.DateDelivery	Describes the first date of approved delivery for construction (MMI400) for the object. Date on the format yyyyymmdd
.DateRevision	Date for current revision for the object (NB! Only for revisions after MMI400) Date on the format yyyyymmdd.
.DesignDiscipline	Discipline responsible for design of the object
.DuplicateOwnedBy	Communicates that another discipline is responsible for information of the element. The duplicate object is represented in this model for coordination or model technical purpose. The property specifies the code for the responsible discipline e.g. RIB, ARK, RIV, RIE etc. If not a duplicate fill out value with a dash "-".
.ProcessStatus	The objects MMI status. Format MMI###
.PNS	The project breakdown structure in which the object belongs.
.WorkPackage	The work package in which the object belongs. Can be different from control area.

#### Property set: NOSSB\_Reference

Table 4 – General TFM properties in property set NOSSB\_Reference

Property	Description	Example value
.RefString	Complete aggregated TFM code, level 0.	++08=662.003.01-FSC009%FSC.011.01
.RefPriSysLoc	Placement ID.	08
.RefPriSysClass	System Code	662
.RefPriSysNo1	System type code	003
.RefPriSysNo2	Sub-system code (if in use)	01
.RefCompClass	Component code	FSC
.RefCompOccNo	Component occurrence code	009
.RefCompTypeNo1	Component type code	011
.RefCompTypeNo2	Sub-component type code (if in use)	01