# thinkproject

## 3D MARKER

Visual sticky notes that can automatically be attached to a building model to highlight problems or to-dos

## 3D MODEL

A depiction of a physical object in three dimensions in a CAD system

## 4D MODEL

Combines 3D models with time and schedule information. Enables a simulation of construction progress along its timeline. Helps to optimise and control planning and management of the work schedule

## 5D MODEL

In a 5D model, 3D models are connected to time as well as cost variables so it is not only possible to control the construction process, but also corresponding quantities and costs

**BFC**

BIM Collaboration Format is an open format to exchange issues with corresponding 3D Markers pointing at particular locations in the 3D model. In contrast to the IFC format it does not contain complete 3D models, but focuses on information like checking results or view points

**BIG BIM**

Refers to BIM as a work method that is implemented across different planning disciplines, throughout all phases of a project, with tools from different software providers

**BIM (MODELLING)**

Building Information Modelling is a collaborative work method, that relies on models and additionally assigned information

**BIM (MANAGEMENT)**

Variation of Building Information Modelling. Replacing Modelling with Management describes the essence of BIM (the collaborative work method) more accurately

## BEP

The BIM Execution Plan outlines how involved parties are going to carry out all tasks related to Building Information Modelling in a project. Different versions are prepared in the pre- and post-contract phase.

The BEP is the answer to the EIR. BEP is part of PAS 1192

## BIM MODEL

The digital object-based representation of the elements of building structures and their properties. In a BIM context, every involved planner uses a specific software tool to create a specialist construction model (partial model). These facilitate information management throughout the project lifecycle

## bSI

buildingSmart International is a globally active organisation that engages in the implementation of open BIM through the provision of tools, certification, standards, etc. Several of buildingSMART's standards have been internationally accepted through ISO

## COBie

The Construction Information Building Operations Exchange is a data standard to hand over BIM data to Facility Management. COBie is a standard for non-graphical data, that contains a defined set of asset information. COBie data is often visualised via a spreadsheet

## CLOSED BIM

All project participants from different planning disciplines create BIM information using the same software tool. Closed BIM can be advantageous for exchanging partial models, as data formats usually do not pose a problem. However, closed BIM is often not feasible due to the differing requirements of involved stakeholders and differing BIM software tools

## CLASH DETECTION

An automated procedure to check for intersections of model elements from different partial models to avoid clashes and ensure plausibility

## CDE

The place where all project information is collected, managed, and disseminated. CDEs are essential for implementing BIM into any project as it facilitates collaboration, brings structure into project information, enables workflows/approval processes and more. The use of a CDE for the management of information in BIM projects has been codified in PAS 1192-2 and ISO 19650

## CO-ORDINATION MODEL

A Coordination Model is a combination of different partial models. Coordination Models can facilitate review and communication between different trades, planners, or other project stakeholders

## FEDERATED MODEL

See: COORDINATION MODEL

## EIR

Employer's Information Requirements is a statement issued by the client about what kind of information they require, as well as how and when the information must be handed over

## IFC

Industry Foundation Classes is an open standard that is used to exchange BIM data in an openBIM environment between project stakeholders. IFC is not tied to a specific software provider. IFC has been defined by buildingSMART and is codified in ISO 16739

## ISO 16739

DIN EN ISO 16739 is an international norm that defines the concept and format for exchanging data in a BIM context. This norm codifies IFC developed by buildingSMART as an accepted standard and specifically describes the role of Model View Definitions. It can be accessed via the International Organisation for Standardisation ISO 16950

## ISO 19650

DIN EN ISO 19650 is an international norm that defines how information management in BIM should be handled. It specifically focuses on exchange, documentation, versioning, and organisation of information, and targets all stakeholders involved in a construction project. The norm can be accessed via the International Organisation for Standardisation

## LOI

The Level of Information defines what amount of alpha-numeric information (properties of each element) should be contained within a model.

LOI is part of LOD

## LOD

Level of Detail describes how much detail a model must contain (in regards to its geometry [LOG] ) and properties (LOI). While LOD 100 for instance, only provides a conceptual model highlighting volume and surfaces, LOD 500 contains every detail and can be considered an as-built model. Typically, the LOD increases as the project proceeds

## LOG

Level of Geometry refers to the requirements on geometric details of a digital construction element.

LOG is part of LOD

## LITTLE BIM

Describes the Implementation of Building Information Modelling as a work method, which is only applied in a single planning discipline or conducted with a single specialised software

## MODEL ELEMENT

Digital representation of an object or component of a building in a model

## MVD

Model View Definitions are domain-specific views on a building model. It defines the types of elements (e.g. wall) and properties required for certain engineering and construction tasks (e.g. structural design)

## NON-GRAPHICAL DATA

Data is non-graphical when it is conveyed in the form of alphanumeric characters (Latin letters and Arabic numbers), as explained by PAS 1192-2. Typical information in a project, which can be classified as non-graphical, can be documents, meeting minutes, etc.

## OPEN BIM

In an open BIM environment, all involved project stakeholders can use individual software tools to create graphical and non-graphical information. In order to exchange models and related non-geometric information they usually rely on open standard data formats like IFC and BCF

## PARTIAL MODEL

A model of a certain building structure, system, or subproject typically created by an individual trade. In building information modelling, partial models are often combined into coordination models to facilitate review

## PAS 1192-2

Publicly Available Specification 1192-2 provides guidelines on information management in projects using BIM. It specialises in information management in the project delivery phase. This PAS was sponsored by the Construction Industry Council and is available through the BSI group

## READY TO KNOW MORE

Starting your digitalisation journey as a BIM beginner? Our

**'KNOW YOUR BIM RESOURCES'**

are bite-sized guides that cover everything you need to know to become an expert.

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