TECHNICAL SPECIFICATION

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Framework for building information modelling (BIM) guidance

Cadre pour les directives de modélisation des données du bâtiment

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

In other circumstances, particularly when there is an urgent market requirement for such documents, a technical committee may decide to publish other types of document:

— an ISO Publicly Available Specification (ISO/PAS) represents an agreement between technical experts in an ISO working group and is accepted for publication if it is approved by more than 50 % of the members of the parent committee casting a vote;

— an ISO Technical Specification (ISO/TS) represents an agreement between the members of a technical committee and is accepted for publication if it is approved by 2/3 of the members of the committee casting a vote.

An ISO/PAS or ISO/TS is reviewed after three years in order to decide whether it will be confirmed for a further three years, revised to become an International Standard, or withdrawn. If the ISO/PAS or ISO/TS is confirmed, it is reviewed again after a further three years, at which time it must either be transformed into an International Standard or be withdrawn.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO/TS 12911 was prepared by Technical Committee ISO/TC 59, *Buildings and civil engineering works*, Subcommittee SC 13, *Organization of information about construction works*.

Framework for building information modelling (BIM) guidance

1 Scope

This Technical Specification establishes a framework for providing specifications for the commissioning of building information modelling (BIM).

This Technical Specification is applicable to any range of modelling of buildings and building-related facilities, from a portfolio of assets at a single site or multiple sites, to assets at a single small building and at any constituent system, subsystem, component or element. It is applicable to any asset type, including most infrastructure and public works, equipment and material. BIM processes are applicable across the entire life cycle of a portfolio, facility or component, which can span inception to end-of-use. The main user of the framework is the information manager, who utilizes the framework to assist in structuring an international-, national-project- or facility-level BIM guidance document. The framework can also be used for BIM guidance provided by application providers.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 6707-1, *Building and civil engineering — Vocabulary — Part 1: General terms*

ISO 29481-1:2010, *Building information modelling — Information delivery manual — Part 1: Methodology and format*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6707-1 and the following apply.

3.1
building information model
building (construction) information model
BIM
shared digital representation of physical and functional characteristics of any built object, including buildings, bridges, roads, process plant

NOTE 1 Adapted from ISO 29481-1:2010, definition 2.2.

NOTE 2 Building information model is frequently used as a synonym for BIM.

NOTE 3 It may form the common basis for decisions and may form the contractual point of reference, across one or more stages in the life cycle.

3.2
building information modelling
building construction information modelling
process of managing information related to the facilities and projects in order to coordinate multiple inputs and outputs, irrespective of specific implementations

NOTE BIM is the most common acronym for a broad range of methods being applied in the facilities project sector. The reference to building is historic, as the change in approach from conventional documentation is most pronounced in the building sector, but similar changes are affecting infrastructure and other facilities.