BS EN ISO 12006-2:2020

BSI Standards Publication

Building construction – Organization of information about construction works

Part 2: Framework for classification

National foreword

This British Standard is the UK implementation of EN ISO 12006-2:2020. It is identical to ISO 12006-2:2015. It supersedes BS ISO 12006-2:2015, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/555, Construction design, modelling and data exchange.

A list of organizations represented on this committee can be obtained on request to its secretary.

This British, European and International Standard provides a framework for the development of built environment classification systems.

It supports building information modelling (BIM) in all construction work (e.g. infrastructure, buildings and refurbishment) for briefing, design, cost management, construction, asset operation and maintenance.

Uniclass 2015 [www.thenbs.com/our-tools/uniclass-2015] has been developed in the UK to align with BS EN ISO 12006-2:2020. Tables in Uniclass 2015 can be mapped to and from corresponding tables in other classification systems that align with this International Standard. Tables in other classification systems that do not align with this International Standard could also be mapped in this way but there is greater potential for variance.

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English Version

Building construction - Organization of information about construction works - Part 2: Framework for classification (ISO 12006-2:2015)

Construction immobilière - Organisation de l'information des travaux de construction - Partie 2: Plan type pour la classification (ISO 12006-2:2015)

Hochbau - Organisation des Austausches von Informationen über die Durchführung von Hoch- und Tiefbauten - Teil 2: Struktur für die Klassifizierung (ISO 12006-2:2015)

This European Standard was approved by CEN on 11 December 2019.

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European foreword

The text of ISO 12006-2:2015 has been prepared by Technical Committee ISO/TC 59 "Buildings and civil engineering works" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 12006-2:2020 by Technical Committee CEN/TC 442 "Building Information Modelling (BIM)" the secretariat of which is held by SN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2020, and conflicting national standards shall be withdrawn at the latest by August 2020.

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

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Endorsement notice

The text of ISO 12006-2:2015 has been approved by CEN as EN ISO 12006-2:2020 without any modification.

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: Foreword — Supplementary information.

The committee responsible for this document is ISO/TC 59, *Buildings and civil engineering works*, Subcommittee SC 13, *Organization of information about construction works*.

This second edition cancels and replaces the first edition (ISO 12006-2:2001), which has been technically revised.

ISO 12006 consists of the following parts, under the general title *Building construction — Organization of information about construction works*:

— *Part 2: Framework for classification*

— *Part 3: Framework for object-oriented information*

Annexes A and B of this part of ISO 12006 are for information only.

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Introduction

0.1 Background

This part of ISO 12006 was first produced when there was little international standardization of classification systems for construction. Now, several national classification systems have been developed, for example, in North America, Scandinavia, and the UK, that implement the 2001 edition. Lessons learned in these implementations have been applied in this second edition.

This part of ISO 12006 has also been revised to take into account developments in information technology (notably building information modelling) and construction procurement (for example, design-build and design-build-operate). It has been extended and definitions have been refined to better serve all construction sectors, including building, civil engineering, and even process engineering. However, it continues to serve traditional information technologies and procurement methods.

A survey conducted as part of the work towards this edition showed that the most widely used classifications remain work results (mainly for specifications) and elements (mainly for cost analysis). They are also the most widely varied classification tables not only in their itemization and structure but also in the range of purposes to which they are put. There are other classifications, potentially just as important, which are used to a lesser degree, e.g. for construction products and properties.

0.2 The need for standardization

Building information modelling and modern forms of procurement require all these construction object classes to be used, along with many others. Building information modelling, in particular, is about exchange of information of all types along the project time line and between participants and applications. This is also the case for cooperative forms of procurement. For this exchange to be successful, a complete and consistent approach to construction object classification is required within the project, and between projects. This part of ISO 12006 is intended to facilitate this exchange.

Information types include geometrical data, functional and technical data, and cost data and maintenance data. The project timeline runs from inception to eventual demolition. Participants include clients, designers, authorities, constructors, end users, and operators. Applications include modelling, specification, product information, and cost information systems. Even now, there is still pressure for each of these to retain, or even develop, its own classification silo. This is not sustainable.

While national classifications that implement this part are still likely to differ in their detail (for example, due to differences in construction culture and legislation), mapping between them should be fairly straightforward. This is because they will be using the same overarching classification framework and construction object class definitions. This, in turn, will help with international construction project work (with participants from many countries), and with development of applications intended to be used internationally.

0.3 The content of this part

This part of ISO 12006 defines a framework for construction-sector classification systems and identifies a set of recommended classification tables and their titles for a range of construction object classes according to particular views, supported by definitions.

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INTERNATIONAL STANDARD **ISO 12006-2:2015**

Building construction – Organization of information about construction works —

Part 2: Framework for classification

1 Scope

This part of ISO 12006 defines a framework for the development of built environment classification systems. It identifies a set of recommended classification table titles for a range of information object classes according to particular views, e.g. by form or function, supported by definitions. It shows how the object classes classified in each table are related, as a series of systems and sub-systems, e.g. in a building information model.

This part of ISO 12006 does not provide a complete operational classification system, nor does it provide the content of the tables, though it does give examples. It is intended for use by organizations which develop and publish such classification systems and tables, which may vary in detail to suit local needs. However, if this part of ISO 12006 is applied in the development of local classification systems and tables, then harmonization between them will be facilitated.

This part of ISO 12006 applies to the complete life cycle of construction works, including briefing, design, documentation, construction, operation and maintenance, and demolition. It applies to both building and civil engineering works, including associated engineering services and landscaping.

2 Normative references

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

ISO 22274, *Systems to manage terminology, knowledge and content — Concept-related aspects for developing and internationalizing classification systems*

3 Terms and definitions

3.1 General

For the purposes of this document, the following terms and definitions apply.

NOTE 1 The definitions are arranged in the following order: construction resource, construction process, construction result, and construction properties.

NOTE 2 In the definitions, terms that are defined elsewhere within this clause are shown in *italics*.

NOTE 3 Examples are given in Annex A.

3.1.1
object
any part of the perceivable or conceivable world

Note 1 to entry: An object is something abstract or physical toward which thought, feeling, or action is directed.

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