International Standard

ISO 29481-2

Building information models — Information delivery manual —

Part 2: Interaction framework

Second edition
2025-12

Modèles des informations de la construction — Protocole d'échange d'informations —

Partie 2: Cadre d'interaction

Reference number
ISO 29481-2:2025(en)

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 59, *Buildings and civil engineering works*, Subcommittee SC 13, *Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM)*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 442, *Building Information Modelling (BIM)*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 29481-2:2012), which has been technically revised.

The main changes are as follows:

— introduced updates that better integrate the interaction framework within the concept of digital IDM communication;

— aligned terminology and practices with other related standards.

A list of all parts in the ISO 29481 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Collaboration between the participants involved during the life cycle of assets is pivotal to the efficient delivery and operation of assets. Organizations collaborate within specific use cases to achieve higher levels of quality and greater re-use of existing knowledge, information experience and resources. A significant condition of collaboration is the opportunity to communicate, re-use and share information efficiently, and to reduce the risk of loss, contradiction or misinterpretation.

The ISO 29481 series on the information delivery manual (IDM) provides significant assistance in making the most of information management. If the necessary information is available at the right time, the quality of the information is satisfactory and the right person is involved at the right time, the collaboration and outcome itself is greatly improved. Since management and coordination rely heavily on communication, it benefits from being well structured, unambiguous, explicit and timely. This is supported by a common understanding of the purpose, the processes, the actors involved and the information needed.

This document focuses on the foundations for and execution of digital communication in accordance with the processes and information requirements of a use case. With a focus on communication, this document offers a natural complement to standards that focus on information management such as the ISO 19650 series, information containers such as the ISO 21597 series and information modelling such as ISO 16739-1 and ISO 10303-239.

This document describes how to use various components of an IDM for verifiable and traceable execution of digital communication. The resulting interaction framework enables standardization of digital communication in construction processes within any collaboration within and between organizations. As digital communication spans the entire life cycle of assets and occurs in projects of all sizes and complexities, a standardized IT approach can benefit a wide range of stakeholders. Support for this standard in various ICT solutions means that various information management systems are connected. By doing so, it provides a basis for reliable information exchange and sharing for users, so that they can be confident that the information they send or receive is accurate and sufficient for the coordination activities they need to perform. This provides a basis for using common data environment (CDE) solutions and workflows.

Building information models — Information delivery manual —

Part 2: Interaction framework

1 Scope

This document specifies a methodology for describing and managing interactions and a format for digital communication between actors in any use case associated with the management of an asset during all life cycle stages.

It provides:

— a methodology that describes an interaction framework for a use case;

— an appropriate way to map responsibilities and interactions that provides a process context for information flow;

— a format in which the interaction framework is specified and executed.

This document is intended to promote secure, verifiable, traceable and high-quality digital IDM communication between actors during all phases of the life cycle of assets, facilitate interoperability between software applications used, and to provide a basis for data- and process-driven information exchange and traceability of communication.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 29481-1, *Building information modelling — Information delivery manual — Part 1: Methodology and format*

ISO 14533-2, *Processes, data elements and documents in commerce, industry and administration — Long term signature — Part 2: Profiles for XML Advanced Electronic Signatures (XAdES)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 29481-1 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/