

<b>STN</b>	<b>Informačné modely stavieb (BIM) Príručka na odovzdávanie informácií Časť 2: Rámec interakcie (ISO 29481-2: 2025)</b>	<b>STN EN ISO 29481-2</b>  73 9010
------------	---	--

Building information models - Information delivery manual - Part 2: Interaction framework (ISO 29481-2:2025)

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/26

Obsahuje: EN ISO 29481-2:2025, ISO 29481-2:2025

Oznámením tejto normy sa ruší  
STN EN ISO 29481-2 (73 9010) z februára 2019

**142113**

---

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2026  
Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii  
v znení neskorších predpisov.

EUROPEAN STANDARD

**EN ISO 29481-2**

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2025

ICS 35.240.67

Supersedes EN ISO 29481-2:2016

English Version

**Building information models - Information delivery  
manual - Part 2: Interaction framework (ISO 29481-  
2:2025)**

Modèles des informations de la construction -  
Protocole d'échange d'informations - Partie 2: Cadre  
d'interaction (ISO 29481-2:2025)

Bauwerksinformationsmodelle - Handbuch der  
Informationslieferungen - Teil 2:  
Interaktionsframework (ISO 29481-2:2025)

This European Standard was approved by CEN on 20 December 2025.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

**EN ISO 29481-2:2025 (E)**

<b>Contents</b>	<b>Page</b>
<b>European foreword.....</b>	<b>3</b>

## **European foreword**

This document (EN ISO 29481-2:2025) has been prepared by Technical Committee ISO/TC 59 "Buildings and civil engineering works" in collaboration with 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 June 2026, and conflicting national standards shall be withdrawn at the latest by June 2026.

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.

This document supersedes EN ISO 29481-2:2016.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

## **Endorsement notice**

The text of ISO 29481-2:2025 has been approved by CEN as EN ISO 29481-2:2025 without any modification.



# International Standard

**ISO 29481-2**

## **Building information models — Information delivery manual —**

### **Part 2: Interaction framework**

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

*Partie 2: Cadre d'interaction*

**Second edition  
2025-12**

**ISO 29481-2:2025(en)****COPYRIGHT PROTECTED DOCUMENT**

© ISO 2025

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

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

Published in Switzerland

**ISO 29481-2:2025(en)****Contents**

	Page
<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
3.1 General.....	2
3.2 Technical components.....	2
<b>4 Notation</b> .....	<b>2</b>
<b>5 Interaction framework</b> .....	<b>3</b>
5.1 General.....	3
5.2 Information management and the interaction framework.....	3
5.3 Purpose of an interaction framework.....	5
5.4 Hierarchical structure of an interaction framework.....	5
5.4.1 General.....	5
5.4.2 Roles.....	6
5.4.3 Transactions.....	7
5.4.4 Messages.....	8
5.4.5 Complex and simple elements.....	10
5.5 Establishing a digital IDM communication project.....	10
5.5.1 General.....	10
5.5.2 Modelling the interaction framework.....	11
5.5.3 Creating and using the interaction framework schema.....	11
5.5.4 Using a project specific message to link a person to roles.....	12
5.5.5 Executing digital IDM communication.....	12
5.5.6 Validating digital IDM communication.....	13
5.5.7 Signing messages with advanced electronic signatures.....	13
5.5.8 Changing the project during execution.....	14
5.5.9 Archiving digital IDM communication.....	14
<b>6 Schemas for validating interaction frameworks and messages</b> .....	<b>15</b>
6.1 Basic principles.....	15
6.2 Types of elements.....	16
6.3 Element types in the interaction framework schema and _2 EXPRESS source file.....	17
6.3.1 General.....	17
6.3.2 Primary element types.....	18
6.3.3 Secondary element types.....	28
6.3.4 References.....	31
6.4 Element types in the interaction message schema and the _5 EXPRESS source file.....	37
6.4.1 General.....	37
6.4.2 Primary element types.....	38
6.4.3 Secondary element types.....	43
6.4.4 References.....	45
<b>Annex A (normative) Interaction framework schema definition</b> .....	<b>51</b>
<b>Annex B (normative) Templates definition</b> .....	<b>52</b>
<b>Annex C (informative) Promotor algorithm</b> .....	<b>53</b>
<b>Annex D (informative) Example interaction framework XML of a simplified design office use case</b> .....	<b>54</b>
<b>Annex E (informative) Example project specific message XML of a simplified design office use case</b> .....	<b>67</b>
<b>Annex F (informative) Example message XML of a simplified design office use case</b> .....	<b>72</b>

## ISO 29481-2:2025(en)

### 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](http://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](http://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](http://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](http://www.iso.org/members.html).

## ISO 29481-2:2025(en)

### 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)*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**