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Australian STANDARD

Building information models—Information delivery manual

Part 2: Interaction framework

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Air Conditioning and Mechanical Contractors Association
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Australian Institute of Architects
Australian Institute of Building
Australian Institute of Building Surveyors
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AUSTROADS
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Preface

This Standard was prepared by the Standards Australia Committee BD-104, Building Information Modelling.

The objective of this Standard is to specify a methodology and format for describing 'coordination acts' between actors in a building construction project during all life cycle stages.

It therefore specifies:

(a) a methodology that describes an interaction framework;

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

(c) a format in which the interaction framework should be specified.

This Standard is identical with, and has been reproduced from, ISO 29481-2:2012, *Building information models — Information delivery manual — Part 2: Interaction framework.*

As this document has been reproduced from an International Standard, the following applies:

(i) In the source text 'this part of ISO 29481' should read 'this Australian Standard'.

(ii) A full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms 'normative' and 'informative' are used in Standards to define the application of the appendices or annexes to which they apply. A 'normative' appendix or annex is an integral part of a Standard, whereas an 'informative' appendix or annex is only for information and guidance.

Contents

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.

Attention is drawn to the possibility that some of the elements of this part of ISO 29481 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 29481-2 was prepared by Technical Committee ISO/TC 59, *Buildings and civil engineering works*, Subcommittee SC 13, *Organization of information about construction works*.

ISO 29481 consists of the following parts, under the general title *Building information models — Information delivery manual:*

— *Part 1: Methodology and format*

— *Part 2: Interaction framework*

The following parts are under preparation:

— *Part 3: Model view definitions*

Introduction

Building information modelling provides a concept for describing and displaying information required in the design, construction, and operation of constructed facilities. It can bring together the diverse sets of information used in construction into a common information environment — reducing, and often eliminating, the need for the many types of paper documentation currently in use.

An information delivery manual (IDM) provides significant help in getting the full benefit from a building construction information model (BIM). If the information required is available when it is needed and the quality of information is satisfactory, the construction process itself will be greatly improved. For this to happen, there should be a common understanding of the building processes and of the information that is needed for and results from their execution.

This part of ISO 29481 focuses on aspects of the construction process that refer to management and coordination of the involved parties. Coordination is dependent on communication, which should be well structured, unambiguous, explicit, and prompt. Due to a sharp focus on coordination and interaction, this part of ISO 29481 provides a natural complement to standards that focus on building modelling like ISO 10303-239 and ISO 16739.

This part of ISO 29481 sets out a methodology and format for describing coordination acts between actors in a construction project. It describes how to identify and define the coordination processes undertaken and the information required for their execution. The resulting interaction frameworks enable standardization of interaction in building processes on national, local, and project level. It also gives a format to support solutions provided by ICT-solution providers. Support of this part of ISO 29481 in different ICT-solutions means that this joins together different process management systems. In doing so, it provides a basis for reliable information exchange/sharing for users, so that they can be confident that the information they are sending or receiving is accurate and sufficient for the coordination activities they need to perform.

The development of this part of ISO 29481 has been driven by the need of users for reliability in information exchange. It is mainly based on the Dutch VISI standard developed in 2003.

Australian Standard®

Building information models—Information delivery manual

Part 2: Interaction framework

1 Scope

This part of ISO 29481 specifies a methodology and format for describing 'coordination acts' between actors in a building construction project during all life cycle stages.

It therefore specifies

— a methodology that describes an interaction framework,

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

— a format in which the interaction framework should be specified.

This part of ISO 29481 is intended to facilitate interoperability between software applications used in the construction process, to promote digital collaboration between actors in the building construction process, and to provide a basis for accurate, reliable, repeatable, and high-quality information exchange.

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

3 Terms and definitions

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

3.1
IDM
Information Delivery Manual
documentation which captures the business process and gives detailed specifications of the information that a user fulfilling a particular role would need to provide at a particular point within a project

3.2
interaction framework
formal description of the elements of interaction, including definition of roles, transactions, messages in transaction, and data elements in messages

3.3
interaction framework schema
formal description of the rules with which an interaction framework must comply

3.4
interaction schema
formal description of the rules with which sent and received messages must comply