
**Building information modelling
and other digital processes used
in construction — Methodology
to describe, author and maintain
properties in interconnected data
dictionaries**

Modélisation des informations de la construction et autres processus numériques utilisés en construction — Méthodologie de description, de création et de gestion des propriétés dans les dictionnaires de données interconnectés

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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.

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Introduction

In the digital built environment, there will not be a single data dictionary which comprises all the definitions which are needed in all BIM domains. Different groups, possibly in different countries, will create or have created separate data dictionaries, specialized for their needs, based on the legislation and culture. We are, and will be faced with, various separated data dictionaries. They may even reside on the same platform yet logically they are detached.

For the future of BIM, it is important to ensure that these data dictionaries can be interoperable in tools and applications.

- The elements of the data dictionaries need to be described by the same attributes. If this is agreed and done by all data dictionary providers, it becomes possible to map properties in one data dictionary to properties in other data dictionaries. This can lead to reuse of properties and to the harmonization of properties across data dictionaries. In addition, this is an important step to allow BIM applications to use multiple data dictionaries consistently.
- The governance of the data dictionaries needs to follow the same rules with respect to the building and development of the data dictionaries' content.

The assumption is that the data dictionaries are independent from each other, they are connected in a coordinated network of data dictionaries (again, there may exist several of these networks). Within the network, the data dictionaries are related, which is visible, for instance, using a specific attribute which maps properties and groups of properties of different data dictionaries to each other. Any data dictionary in the network of coordinated data dictionaries is independent, i.e. it has its own processes and committees to control the development and evolution of the data dictionary; meanwhile, they all follow the same description and governance rules described in this document.

This document specifies the attributes to define properties and groups of properties of a single data dictionary as well as the processes and commissions/roles for the governance of a single data dictionary in a network of coordinated data dictionaries. In the governance processes, it is described how the single data dictionary deals with queries and change requests and the extension of queries to other connected data dictionaries; information of other connected data dictionaries regarding change is an integral part of this process.

This document contributes to ensuring the quality and the unicity of property descriptions and avoiding the creation of duplicates.

