

**PAS 14191:2020**

Built environment –  
Management and operation of  
interconnected construction data  
dictionaries – Specification



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# Foreword

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## Relationship with other publications

CEN/TC 442 Working Group 4 has ongoing activity relating to data dictionaries that is relevant to this subject area. This PAS compliments BS EN ISO 23386 through the specification of additional national requirements.

## Information about this document

Data dictionaries are used by the construction industry to store and retrieve terms (properties) related to construction products and methods.

The purpose of a data dictionary is to standardize those terms and the ways in which machines understand those properties.

For a property to be entered into a data dictionary, a process of agreement and approval is required. To achieve these agreements and approvals, interested parties are invited to share their views so that consensus can be reached.

The grouping of properties into functional sections helps discoverability, comparison and usage of properties.

Groups come in several forms. For example simple groups, such as “Manufacturer Data”, aggregate all the properties that would be required to identify a manufacturer.

Other groups of properties, known as special case groups, can aggregate simple groups into templates to describe product types, for example a Product Data Template (PDT).

Completion of a PDT generates a Product Data Sheet (PDS), which is itself a special case group of properties.

Not all data dictionaries are required to host all the group types and this PAS allows different data dictionaries to host different group functionality.

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It has been assumed in the preparation of this PAS that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

## Presentational conventions

The provisions of this PAS are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is “shall”.

*Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.*

Where words have alternative spellings, the preferred spelling of the Shorter Oxford English Dictionary is used (e.g. “organization” rather than “organisation”).

Where URLs for websites and webpages have been cited, they aim to provide ease of reference for the PAS user and are correct at the time of publication. The location of a webpage or website, or its contents cannot be guaranteed.

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**Compliance with a PAS cannot confer immunity from legal obligations.**

# Introduction

The exchange of information is one of the fundamental precepts for information management using building information modelling (BIM). To facilitate this exchange in a digital manner, each project participant needs to be able to understand the incoming information and format outgoing information in a way that is understandable by all recipients.

To facilitate this understanding, data dictionaries are required to create a common understanding of terms and the format in which they are delivered.

The majority of information exchanged during construction projects is related to the products that comprise the finished construction, and as such the primary focus of this PAS is on product data requirements for design, procurement, operations and maintenance. This does not imply that a data dictionary should not describe information containers relating to other aspects, such as project, system or room information, or any other holder of information that is to be exchanged.

To achieve these goals, it is important to create an environment of co-operation and collaboration between the registered users. These parties have different requirements for information and might have different methods by which information is described. This PAS sets out ways in which a consensus can be reached between the parties and specifically precludes a monopoly or hegemonic body.

***NOTE** This preclusion is to prevent any single voice or body having a greater influence than any other.*

# 1 Scope

This Publicly Available Specification (PAS) specifies the requirements for a management process for the creation, acceptance, distribution, interoperability and maintenance of structured information within construction data dictionaries for the built environment.

It covers the development, approval and management of structured information within construction data dictionaries, such as data templates. It does not cover data dictionary ontologies or taxonomies.

This PAS is intended for UK operation but can be used elsewhere.

This PAS complements BS EN ISO 23386 by requiring an open but actively managed environment for industry collaboration.

***NOTE 1** BS EN ISO 23386 covers the international, general requirements for interconnected data dictionaries; this PAS adds to those concepts with a series of actionable steps and processes to fulfil those requirements.*

***NOTE 2** This PAS can be used for any construction data dictionaries, though it has been developed primarily to cover construction products data dictionaries.*

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application.<sup>1)</sup> For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS EN ISO 23386:2020, *Building information modelling and other digital processes used in construction — Methodology to describe, author and maintain properties in interconnected dictionaries*

ISO/IEC 9834-8, *Information technology — Procedures for the operation of object identifier registration authorities — Generation of universally unique identifiers (UUIDs) and their use in object identifiers*

<sup>1)</sup> Documents that are referred to solely in an informative manner are listed in the Bibliography.