SLOVENSKI STANDARD
SIST EN 50090-6-2:2025

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Stanovanjski in stavbni elektronski sistemi (HBES) - 6-2. del: Semantični opis ontološkega modela

Home and Building Electronic Systems (HBES) - Part 6-2: IoT Semantic Ontology model description

Elektrische Systemtechnik für Heim und Gebäude (ESHG) - Teil 6-2: Beschreibung des IoT semantischen Ontologiemodells

Systèmes électroniques pour les foyers domestiques et les bâtiments (HBES) - Partie 6-2: Description du modèle ontologie sémantique IoT

Ta slovenski standard je istoveten z: **EN 50090-6-2:2025**

ICS:

35.240.67	Uporabniške rešitve IT v gradbeništvu	IT applications in building and construction industry
97.120	Avtomatske krmilne naprave za dom	Automatic controls for household use

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European foreword

This document (EN 50090-6-2:2025) has been prepared by CLC/TC 205 “Home and Building Electronic Systems (HBES)”.

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2026-06-30
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2028-06-30

This document supersedes EN 50090-6-2:2021 and all of its amendments and corrigenda (if any).

EN 50090-6-2:2025 includes the following significant technical changes with respect to EN 50090-6-2:2021:

— certain HBES concepts were split to have a better distinction between definitions and their types (e.g. datapoints and their types);

— improved linking between different concepts such as devices and application functions;

— copies of external ontology parts were removed from the HBES ontology and replaced by references.

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1 Scope

This document defines the HBES Information Model and a corresponding data exchange format for the Home and Building HBES Open Communication System.

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.

EN 50090-1:2011, *Home and Building Electronic Systems (HBES) - Part 1: Standardization structure*

EN 50090–6-3:2023, *Home and Building Electronic Systems (HBES) - Part 6-3: 3rd Party HBES IoT API*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 50090-1:2011 and the following apply.

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

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

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

3.1.1
actuator
point performing an *actuation* (executed by a specific *procedure,* with an expected *result*) that changes an Installation state during Runtime

Note 1 to entry:

— The term Actuator can be mapped to sosa:Actuator in the SSN Ontology.

— The subject *actuation* can be mapped to sosa:Actuation in the SSN Ontology.

— The subject *procedure* can be mapped to sosa:Procedure in the SSN Ontology.

— The subject *result* can be mapped to sosa:Result in the SSN Ontology.

3.1.2
Application Function
use of a set of Functions to achieve the desired behaviour of a technical system, typically using a combination of devices exchanging information via their input and output Datapoints

Note 1 to entry: An Application Function may be split into several Functional Blocks with their input and output Datapoints that are logically connected to each other. The Functional Blocks may be located in one or more devices.

EXAMPLE Application Functions examples are “direct electrical heating”, “electrical heating with accumulators”, “warm water heating”, “fan coil air-conditioning” …

Note 2 to entry: The Application Function and Application are meant to be the same. Reason to introduce an alias term is to use a clear (understandable) reference from Application/ Application Function to the corresponding KIM class:ApplicationFunction or to the Function in the Management Client.

3.1.3
aspect
specific perspective on a system that contains things with different properties, or referencing mechanism to organize KIM elements in a specific perspective

EXAMPLE A Function Point is an ex officio Aspect with an important specific perspective. It is a referencing mechanism to organize together all to a Function Point interoperating Points (all GOs linked to a GA).

3.1.4
BIM
Building Information Model
digital process to describe and document a building in all its life cycle phases, from its planning, construction, operation up to its demolition

3.1.5
channel
collection of Datapoints of a device that are logically related to each other typically by association with a hardware feature or a specific function of that device

Note 1 to entry: These Datapoints may be derived from one or more defined Functional Blocks or may be an expansion above and beyond defined Functional Blocks or may be independent of a Functional Block if none is defined for the function associated with the Channel. The concept of a Channel is well-understood by the market participant, e.g. installers.

3.1.6
datapoint
logical input entity of a device acting as recipient of Installation state data, whereas a logical output of a device acts as source of Installation state data

Note 1 to entry: In case of implementation as a Group Object, state data are communicated with the use of Function Points.

Note 2 to entry: The term Datapoint is the common term; to specifically denote a Datapoint available on an IoT 3rd Party API, the term IoT Datapoint is used.

3.1.7
device
physical element that is part of the network

Note 1 to entry: It is a physical, concrete object that a customer can buy.

3.1.8
endpoint
entry point to a service, a process, or a queue or topic destination in service-oriented architecture

3.1.9
Feature of Interest
FOI
abstraction of a real-world thing (phenomenon, equipment, person, event…) defined by its observable or actuatable properties

Note 1 to entry: In colloquial terms, a FOI is a property carrier.

Note 2 to entry: A Sensor operates on a FOI with observable properties, an Actuator with actuatable properties.

Note 3 to entry: A FOI is not a “classification/type” tag itself; the “classification/ type” is accomplished with the help of tags. Examples are defined in 4.5.1.4.