SLOVENSKI STANDARD
oSIST prEN IEC 81355-1:2023

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Klasifikacija in označevanje dokumentov za naprave, sisteme in opremo - 1. del: Pravila in klasifikacijske preglednice

Classification and designation of documents for plants, systems and equipment - Part 1: Rules and classification tables

Classification et désignation des documents pour installations industrielles, systèmes et matériels - Partie 1: Règles et tableaux de classification

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COMMITTEE DRAFT FOR VOTE (CDV)

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IEC TC 3 : DOCUMENTATION, GRAPHICAL SYMBOLS AND REPRESENTATIONS OF TECHNICAL INFORMATION	
SECRETARIAT: Sweden	SECRETARY: Mr Mikael Törnkvist
OF INTEREST TO THE FOLLOWING COMMITTEES: TC 8,TC 9,SC 17C,TC 22,SC 22F,SC 22H,TC 31,TC 44,SC 45A,TC 57,TC 64,TC 65,SC 65A,SC 65E,TC 69,TC 82,TC 88,TC 120,SC 121A,SC 121B,TC 122,PC 126,PC 127,SyC SM,SyC Smart Cities,SyC Smart Energy,ISO/IEC JTC 1/SC 25	PROPOSED HORIZONTAL STANDARD: ☒ Other TC/SCs are requested to indicate their interest, if any, in this CDV to the secretary.
FUNCTIONS CONCERNED: ☐ EMC ☐ ENVIRONMENT ☐ QUALITY ASSURANCE ☐ SAFETY	
☒ SUBMITTED FOR CENELEC PARALLEL VOTING **Attention IEC-CENELEC parallel voting** The attention of IEC National Committees, members of CENELEC, is drawn to the fact that this Committee Draft for Vote (CDV) is submitted for parallel voting. The CENELEC members are invited to vote through the CENELEC online voting system.	☐ NOT SUBMITTED FOR CENELEC PARALLEL VOTING

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TITLE:

Classification and designation of documents for plants, systems and equipment - Part 1: Rules and classification tables

PROPOSED STABILITY DATE: 2026

NOTE FROM TC/SC OFFICERS:

FOREWORD 4
INTRODUCTION 6
1 Scope 8
2 Normative references 8
3 Terms and definitions 8
4 General concepts 10
4.1 General 10
4.2 Classification principles 12
5 Designation of information containers 12
5.1 General 12
5.2 Designation of an information container 13
5.3 Relating information containers to an object 13
5.4 Structuring and designation of multiple information containers 14
5.5 Identification of documents 16
5.6 Information for identification purposes 16
6 Documentation 16
6.1 General 16
6.2 Moving from DCC to ICC 17
Annex A (informative) Information model 18
A.1 General 18
A.2 UML model 18
A.3 Entity descriptions 19
A.3.1 ObjectOfInterest 19
A.3.2 Information 20
A.3.3 Context 20
A.3.4 Data 21
A.3.5 InformationContainer 21
A.3.6 Document 21
A.3.7 Documentation 22
A.3.8 ICC 22
A.3.9 ClassOfInformation 22
A.3.10 ClassificationScheme 23
A.4 Enumeration - IEC81355ClassificationDomain 23
A.5 Enumeration - IEC81355DocumentForms 23
Annex B (normative) Information class codes 25
Annex C (informative) Additional information about document kinds for communication purposes 32
C.1 Form of presentation 32
Annex D (informative) From Document Code Class (DCC) to Information Code Class (ICC) 34
D.1 General 34
D.2 Comparison of DCC vs. ICC 34
Bibliography 44

Table B.2 – Entry class for information class codes (first letter code L1) 25
Table B.2 – Subclasses for information class codes (first and second letter code) 26

Table C.1 – Letter code for basic document kinds and forms of presentation 32
Table D.1 – DCC data position A2 vs. ICC entry class code L1. 35
Table D.2 – DCC data position A3 vs. ICC subclass code L2. 37

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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INDUSTRIAL SYSTEMS, INSTALLATIONS AND EQUIPMENT AND INDUSTRIAL PRODUCTS - CLASSIFICATION AND DESIGNATION OF INFORMATION

Part 1: Basic rules and classification of information

FOREWORD

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IEC 81355-1 has been prepared by IEC technical committee 3: Documentation, graphical symbols and representations of technical information, in close cooperation with ISO technical committee 10: Technical product documentation. It is an International Standard.

It is published as a double logo standard and has the status of a horizontal publication in accordance with IEC Guide 108.

This edition cancels and replaces the second edition of IEC 61355-1 published in 2008. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) …to be completed

106 The text of this standard is based on the following documents:

CD	Report on voting
3/xxx/CD	3/xxx/RVD

107
108 Full information on the voting for its approval can be found in the report on voting indicated in
109 the above table. In ISO, the standard has been approved by xx members out of xx having cast
110 a vote.

111 The language used for the development of this International Standard is English.

112 A list of parts of the 81355 International Standard, published under the general title *Industrial*
113 *systems, installations and equipment and industrial products – Classification and designation*
114 *of information*, can be found on the IEC website.

115 This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in
116 accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available
117 at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are
118 described in greater detail at www.iec.ch/standardsdev/publications.

119 In this document, *italic type* is used as follows:

120 • terms defined in Clause 3 (applies to the text in Clause 3 only)
121 • in the description of the EXPRESS model, entity names and attribute identifiers.

122 The committee has decided that the contents of this document will remain unchanged until the
123 stability date indicated on the IEC website under webstore.iec.ch in the data related to the
124 specific document. At this date, the document will be

125 • reconfirmed,
126 • withdrawn,
127 • replaced by a revised edition, or
128 • amended.

129

130

INTRODUCTION

Information is necessary for all activities during the life cycle of a system, e.g., information about industrial plants, constructions, technical installations, and equipment. Information may be received from and delivered to stakeholders of the system of interest. Different stakeholders may need different information or different views on the same system, depending on what is most suitable for their current need.

This document is based on former IEC 61355:2008 and IEC 61355DB, but as a new joint ISO & IEC document, it introduces a shift in mindset: from document code classes (known as “DCC”) to classification of information in a broad sense, represented by information class codes (ICC). These are used to unambiguously identify information conveyed among parties.

Because of this shift in mindset from documentation (IEC 61355) to information (this document), it is acknowledged that a document can contain and present more than one type of information. For humans to interpret information, the information is always presented in a certain form such as e.g., a text, a drawing, or a 3D model. In this document, information about an object is always conveyed in an information container which shall be identified by an unambiguous designation. When the information container is under revision control, it is defined as a document.

One aim of this document is to establish a method for unambiguous communication and understanding between parties involved in information interchange. To get a basis for a system, it is necessary to disregard what information (and subsequently the documentation presenting the information) is called in daily life. Instead, the basis for a common understanding shall be an information kind classification, which is based only on the content of information provided. Thus, the user of this document needs to disregard the view of a document as “a piece of paper”, instead seeing it as an analogue or digital container which conveys information.

Another aim of this document is to set up rules for a specific method of correlating information and objects, i.e., to indicate to which object or system a specific information belongs. For this purpose, an information designation system is provided, linking the information kind designation to the object designation used for the system of interest. By that, guidance is also given for sorting and grouping as well as for structured information search, for example in information storage systems and for identification of information containers, e.g., as file names.

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INDUSTRIAL SYSTEMS, INSTALLATIONS AND EQUIPMENT AND INDUSTRIAL PRODUCTS - CLASSIFICATION AND DESIGNATION OF INFORMATION CONTAINERS

Part 1: Basic rules

1 Scope

This part of the 81355 International Standard, published jointly by IEC and ISO, provides rules and guidelines for the classification and designation of information based on its inherent content. This document is applicable for information used in the life cycle of a system, e.g., industrial plants, construction entities and equipment.

This document defines classes of information and their codes (Information Class Code – ICC). The defined classes and codes provided are intended to be used as values associated with metadata, e.g., in information management systems (see IEC 82045-1 and IEC 82045-2).

The rules, guidelines and classes are general and are applicable to all technical areas, for example mechanical engineering, electrical engineering, construction engineering and process engineering. They can be used for systems based on different technologies or for systems combining several technologies.

This document is also a horizontal publication intended for use by technical committees in preparation of publications related to classification and designation of information in accordance with the principles laid down in IEC Guide 108.

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.

None.

3 Terms and definitions

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

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

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

• IEC Electropedia: available at http://www.electropedia.org/

3.1
information
intelligence or knowledge capable of being represented in forms suitable for communication, storage or processing

Note 1 to entry: Information may be represented for example by signs, symbols, pictures or sounds.

[SOURCE: IEC 60050-171:2019, 701-01-01]

3.2
object
entity treated in a process of development, implementation, usage, and disposal

Note 1 to entry: The object may refer to a physical or non-physical ”thing”

Note 2 to entry: The object has *information* (3.1) associated to it.

[SOURCE: IEC 81346-1:2022, definition 3.1]

3.3
system
set of interrelated *objects* (3.2) considered in a defined context as a whole and separated from their environment

Note 1 to entry: A system is generally defined with the view of achieving a given objective, e.g. by performing a definite function.

Note 2 to entry: Elements of a system can be natural or man-made material objects, as well as modes of thinking and the results thereof (e.g., forms of organisation, mathematical methods, programming languages).

Note 3 to entry: The system is considered to be separated from the environment and the other external systems by an imaginary surface, which cuts the links between them and the system.

Note 4 to entry: The term "system" should be qualified when it is not clear from the context to what it refers, e.g. control system, colorimetric system, system of units, transmission system.

[SOURCE: IEC 60050-151:2001, 151-11-27, modified – “elements” has been replaced by “objects”.]

3.4
data
representation of *information* (3.1) in a formalized manner suitable for human or automatic processing

Note 1 to entry: Processing includes communication and interpretation.

Note 2 to entry: In English, the word "data" is generally used in plural form. For use in singular form, it can be called "data item".

[SOURCE: IEC 60050-171:2019, 171-01-02]

3.5
data element
data item (3.4) that is considered to be indivisible in a certain context

[SOURCE: IEC 60050-171:2019, 171-02-01]

3.6
record
set of *data elements* (3.5), treated as a whole

[SOURCE: IEC 60050-171:2019, 171-02-28, modified - ‘context’ removed]

3.7
file
set of related *records* (3.6) treated as a whole

[SOURCE: IEC 60050-171:2019, 171-02-30]

3.8
inherent content
content of *information (*3.1), independent of any application

Note 1 to entry: Inherent is regarded as existing in something as a permanent, essential, or characteristic attribute

Note 2 to entry: In this document, classification of information is based on its inherent content.

3.9
information class
kind of *information* (3.1) characterized by its *inherent content* (3.8*)*

3.10
information container
named persistent set of *information* (3.1) retrievable from within a *file* (3.7), *system* (3.3), or application storage hierarchy

EXAMPLE: Including sub-directory, information file (including model, document, table, schedule), or distinct sub-set of an information file such as a chapter or section, layer, or symbol.

Note 1 to entry: Structured information containers include geometrical models, schedules, and databases. Unstructured information containers include documentation, video clips and sound recordings.

Note 2 to entry: Persistent information exists over a timescale long enough for it to have to be managed, i.e., this excludes transient information such as internet search results.

[SOURCE: ISO 19650:2018, 3.3.12]

3.11
object designation
unambiguous identifier of an *object* (3.2) in a given context

Note 1 to entry: Examples of such designations are: reference designation, type number, serial number, name.

3.12
document
designated *information container* (3.10) which is under revision control

3.13
documentation
collection of *documents* (3.12) related to a given object

3.14

4 General concepts

4.1 General

Information is necessary for different activities and purposes during the life cycle of a system. Sender and receiver of any information related to a system of interest are the stakeholders of the system.

Information is often transmitted using specific terms, serving different purposes. These terms are often defined and understood only in a certain context, which can lead to misunderstandings for the recipient of the information.