SLOVENSKI STANDARD
SIST EN 62507-1:2011

01-april-2011

Zahteve za identifikacijske sisteme, ki omogočajo nedvoumno izmenjavo informacij - 1. del: Načela in metode (IEC 62507-1:2010)

Requirements for identification systems enabling unambiguous information interchange - Part 1: Principles and methods (IEC 62507-1:2010)

Identifikationssysteme zur Unterstützung eines eindeutigen Informationsaustauschs - Anforderungen - Teil 1: Grundsätze und Methodik (IEC 62507-1:2010)

Conditions pour des systèmes d'identification permettant l'échange non ambigu de l'information - Partie 1: Principes et méthodes (CEI 62507-1:2010)

Ta slovenski standard je istoveten z: EN 62507-1:2011

ICS:

35.240.01	Uporabniške rešitve informacijske tehnike in tehnologije na splošno	Application of information technology in general

SIST EN 62507-1:2011   **en,fr,de**

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62507-1

February 2011

ICS 01.140; 35.240

English version

Identification systems enabling unambiguous information interchange - Requirements - Part 1: Principles and methods
(IEC 62507-1:2010)

Systèmes d'identification permettant l'échange non ambigu de l'information - Exigences - Partie 1: Principes et méthodes (CEI 62507-1:2010)

Anforderungen an Identifikationssysteme zur Unterstützung eines eindeutigen Informationsaustauschs - Teil 1: Grundsätze und Methodik (IEC 62507-1:2010)

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This European Standard was approved by CENELEC on 2011-01-02. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 62507-1:2011 E

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Foreword

The text of document 3/1007/FDIS, future edition 1 of IEC 62507-1, prepared by IEC TC 3, Information structures, documentation and graphical symbols, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62507-1 on 2011-01-02.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

The following dates were fixed:

– latest date by which the EN has to be implemented
  at national level by publication of an identical
  national standard or by endorsement   (dop)   2011-10-02

– latest date by which the national standards conflicting
  with the EN have to be withdrawn   (dow)   2014-01-02

Annex ZA has been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 62507-1:2010 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 81346-1   NOTE   Harmonized as EN 81346-1.

ISO 9000:2005   NOTE   Harmonized as EN ISO 9000:2005 (not modified).

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Annex ZA
(normative)

Normative references to international publications
with their corresponding European publications

The following referenced documents are indispensable for the application 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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 61360-1	-	Standard data elements types with associated classification scheme for electric items - Part 1: Definitions - Principles and methods	EN 61360-1	-
IEC 81346-2	-	Industrial systems, installations and equipment and industrial products - Structuring principles and reference designations - Part 2: Classification of objects and codes for classes	EN 81346-2	-
IEC 82045-1	-	Document management - Part 1: Principles and methods	EN 82045-1	-
IEC 82045-2	-	Document management - Part 2: Metadata elements and information reference model	EN 82045-2	-
ISO/IEC 646	1991	Information technology - ISO 7-bit coded character set for information interchange	-	-
ISO/IEC 6523-1	-	Information technology - Structure for the identification of organizations and organization parts - Part 1: Identification of organization identification schemes	-	-
ISO/IEC 15418	-	Information technology - Automatic identification and data capture techniques - GS1 Application Identifiers and ASC MH10 Data Identifiers and maintenance	-	-
ISO/IEC 15434	-	Information technology - Syntax for high-capacity automatic data capture (ADC) media	-	-
ISO/IEC 15459-1	-	Information technology - Unique identification of transport units - Part 1: General	-	-
ISO/IEC 15459-2	-	Information technology - Unique identifiers - Part 2: Registration procedures	-	-
ISO/IEC 15459-4	-	Information technology - Unique identifiers - Part 4: Individual items	-	-
ISO/IEC 7064	-	Information technology - Security techniques - Check character systems	-	-
ISO 3166-1	-	Codes for the representation of names of countries and their subdivisions - Part 1: Country codes	EN ISO 3166-1	-

Publication	Year	Title	EN/HD	Year
ISO 10303-11	-	Industrial automation systems and integration - Product data representation and exchange - Part 11: Description methods: The EXPRESS language reference manual	-	-

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IEC 62507-1

Edition 1.0   2010-11

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Identification systems enabling unambiguous information interchange –
Requirements –
Part 1: Principles and methods

Systèmes d'identification permettant l'échange non ambigu de l'information –
Exigences –
Partie 1: Principes et méthodes

INTERNATIONAL
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INTERNATIONAL ELECTROTECHNICAL COMMISSION
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IDENTIFICATION SYSTEMS
ENABLING UNAMBIGUOUS INFORMATION INTERCHANGE –
REQUIREMENTS –

Part 1: Principles and methods

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.

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International Standard IEC 62507-1 has been prepared by IEC technical committee 3: Information structures, documentation and graphical symbols..

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

FDIS	Report on voting
3/1007/FDIS	3/1024/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

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A list of all parts of the IEC 62507 series, published under the general title, *Identification systems enabling unambiguous information interchange – Requirements*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

• reconfirmed,
• withdrawn,
• replaced by a revised edition, or
• amended.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

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IDENTIFICATION SYSTEMS
ENABLING UNAMBIGUOUS INFORMATION INTERCHANGE –
REQUIREMENTS –

Part 1: Principles and methods

1   Scope

This part of IEC 62507 specifies basic requirements for systems for the identification of objects (such as products, "items", documents, etc., excluding human individuals). It focuses on assigning identifiers to an object for referencing purposes.

The classification of objects for any and whatever reason and the verification that an object is really the object it claims to be, are excluded.

This standard includes recommendations for the human readable presentation of identifiers and its machine readable representation, to be considered when constructing the identifiers and identification numbers.

The standard includes also requirements for the application of identifiers in a computer sensible form in accordance with such systems, and requirements for their interchange.

The specification of the physical file or transfer format (syntax) for a machine to machine information interchange is not included, nor is the specification and transfer formats for the implementation by a physical medium, e.g. file, bar code, Radio Frequency Identification (RFID), used for information interchange and the identification labelling on an object included.

2   Normative references

The following referenced documents are indispensable for the application 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.

IEC 61360-1, *Standard data element types with associated classification scheme for electric components – Part 1: Definitions – Principles and methods*

IEC 81346-2, *Industrial systems, installations and equipment and industrial products – Structuring principles and reference designations – Part 2: Classification of objects and codes for classes*

IEC 82045-1, *Document management – Part 1: Principles and methods*

IEC 82045-2, *Document management – Part 2: Metadata elements and information reference model*

ISO/IEC 646:1991, *Information technology – IS0 7-bit coded character set for information interchange*

ISO/IEC 6523-1, *Information technology – Structure for the identification of organizations and organization parts –Part 1: Identification of organization identification schemes*

ISO/IEC 15418, *Information technology – Automatic identification and data capture techniques – GS1 Application identifiers and ASC MH 10 data identifiers and maintenance*

ISO/IEC 15434, *Information technology – Automatic identification and data capture techniques – Syntax for high-capacity ADC media*

ISO/IEC 15459-1, *Information technology – Unique identifiers – Part 1: Unique identifiers for transport units*

ISO/IEC 15459-2, *Information technology – Unique identifiers – Part 2: Registration procedures*

ISO/IEC 15459-4, *Information technology – Unique identifiers – Part 4: Individual items*

ISO 3166-1, *Codes for the representation of names of countries and their subdivisions – Part 1: Country codes*

ISO 7064, *Information technology – Security techniques – Check character systems*

ISO 10303-11, *Industrial automation systems and integration – Product data representation and exchange – Part 11: Description methods: The EXPRESS language reference manual*

3 Terms and definitions

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

3.1
batch number
lot number
identification number assigned to a group of specimens considered as one *object* to identify the specimens that are manufactured together under assumed identical conditions and in a limited time interval

NOTE   The *batch number / lot number* is normally assigned at the manufacturing of the *object*.

3.2
domain
distinguished part of an abstract or physical space where something exists

NOTE   A *domain* can be e.g. an *organization* or a country or a part of it.

3.3
domain number
domain ID
identification number assigned to a *domain*

NOTE   The assigned *domain number* can coincide with the *organization number*.

[IEC 82045-2 derived]

3.4
identification [activity]
act of associating *identification numbers* to an *object*

3.5
identification number
ID
string of characters representing the value of the *identifier*

NOTE 1   It is practice that although the term says "number" the string can contain other types of characters as well.

NOTE 2   Note that the term "*identifier*" as being an attribute and the term "*identification number*" as being the value of that attribute are here considered different things, but they are often mixed in existing definitions.

NOTE 3   *Identification numbers* are often required to be unique (an *object* shall have one number only). This is an unnecessary strong requirement, it is sufficient if they are unambiguous within a specified *domain*. An *object* may have more than one *identification number*.

Furthermore, it is assumed in the definition that an *organization* may be responsible for more than one *identification number domain*. This is a commonly occurring situation when *organizations* are merged, etc.

[IEC 82045-2 derived]

3.6
identification scheme
definition and description of the structure of *identifiers*

3.7
identification system
system of defined and documented rules and procedures within an *organization* aiming at the unambiguous *identification* and retrieval of any *object* of interest by applying an *identification scheme*

3.8
identifier
attribute associated with an *object* to unambiguously identify it in a specified *domain*

NOTE   In an identification system several types of identifiers may be required.

3.9
identity
established relation between an *object* and an *identification number*

3.10
issuing organization
organization being entrusted by a *registration authority* or of the management of an *organization* to assign *identification numbers* in a given *domain*

[ISO 6523 derived]

3.11
metadata
meta information
information (irrespective of its form) used to describe a real or abstract *object*

[IEC 82045-1 derived]

3.12
object
entity treated in a *process* of development, implementation, usage and disposal

NOTE 1   The object may refer to a physical or non-physical "thing", i.e. anything that might exist, exists or did exist.

NOTE 2   The object has information associated to it.

[IEC 81346-1, 3.1]

3.13
object number
object ID
identification number assigned to an *object*

NOTE 1   The terms product number, item number, part number, article number, product identifying number, traceability number (serial or batch) are sometimes used as synonyms to *object number*.

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NOTE 2   For products the identification number is normally assigned at the engineering of the object. Objects with the same identification number are supposed to have the same "form, fit and function" and hence being interchangeable.

3.14
object individual
specimen of an *object t*ype irrespective of where it is being used

3.15
object occurrence
use of an *object type* within a specified context (another *object* or system) irrespective of which *object individual* that is being used

3.16
object type
class of *objects* having the same set of characteristic properties

3.17
organization
company, corporation, firm, enterprise, authority or institution, or part or combination thereof, whether incorporated or not, public or private, that has its own functions and administration

3.18
organization number
organization ID
identification number assigned to an *organization*

NOTE   The assigned organization number can coincide with the *domain number*.

[ISO 6523-1 derived]

3.19
registration authority
organization responsible to receive and acknowledge applications from *organizations* wishing to become an *issuing organization* in a given *domain*

[ISO 6523 derived]

3.20
serial number
identification number assigned to an individual specimen of *objects* or an *object type*

NOTE   In most industrial applications a *serial number* is used for tracing the different individual specimen of a product type during their life times, e.g. the individual cars manufactured of a specific car type.

In other cases the serial number is used as a running number in order to differentiate among different objects or among different objects within a given domain.

3.21
traceability
ability to trace (identify and retrieve) the information on the stages that lead to a particular point in a process

[ISO 9000 3.5.4 modified]

3.22
variant
object type derived from a basic (general) object type

NOTE   *Variants* are intended to exist at the same time and require simultaneous management, while *versions* follow each other sequentially in time. Versions can, however, also exist at the same time, depending on how older versions are phased out.