

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**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**



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IEC Central Office
3, rue de Varembe
CH-1211 Geneva 20
Switzerland
Email: inmail@iec.ch
Web: www.iec.ch

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

IDENTIFICATION SYSTEMS ENABLING UNAMBIGUOUS INFORMATION INTERCHANGE – REQUIREMENTS –

Part 1: Principles and methods

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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.

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

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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 – 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 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.