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Information technology — Automatic identification and data capture techniques — Unique identification —

Part 3: Common rules

Technologies de l'information — Identification automatique et techniques de capture de données — Identification unique —

Partie 3: Règles communes

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

Technical Corrigendum 1 was prepared by ISO/IEC JTC 1, *Information technology*, Subcommittee SC 31, *Automatic identification and data capture techniques*.

This second edition cancels and replaces the first edition (ISO/IEC 15459-3:2014), which has been technically revised.

This corrected version of ISO/IEC 15459-3:2014 incorporates the following corrections plus other editorial modifications. Clause 6.2 (Clause 6.3 in this edition) has been modified as follows:

6.3 Common rule for the character set of an identity

"The common rule for an identity is that it shall use alphabetic, numeric and special characters from the invariant character set ISO/IEC 646 (see Annex A).

Any data processing system shall be capable of processing identities using the full repertoire of characters permitted by ISO/IEC 646."

A list of all parts in the ISO/IEC 15459 series can be found on the ISO website.

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Introduction

Unique identification can occur at many different levels, at item level, on the transport unit, on the returnable transport item, at grouping levels, and elsewhere. Such entities are often handled by several parties, both public and private, throughout their lifecycle. Each of these parties must be able to identify and trace such distinct entities so that reference can be made to associated information such as quality inspection data, the chemical substance contained, the batch or lot number of parts, components or raw materials, etc.

The associated information is typically held in some kind of database. The information can be accessed using EDI exchange or another appropriate access protocol, e.g. a directory access protocol.

There are considerable benefits if the identity of the entity is represented as a bar code or other AIDC (Automatic Identification and Data Capture) media and attached to, or made a constituent part of, that which is being uniquely identified so that:

— it can be read electronically, thus minimizing errors;

— one identity can be used by all parties;

— each party can use the identity to look up its computer files to find the data associated with the entity.

All AIDC technologies have the potential to encode an identity. It is expected that application standards, using various automatic identification technologies, will be developed based upon the identity as a prime key. These application standards, which can include additional rules for which level of identification should be used, are often made available from the publisher.

The common rules for how to construct an identity to achieve unique identification of an entity are defined in this part of ISO/IEC 15459.

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Information technology — Automatic identification and data capture techniques — Unique identification —

Part 3: Common rules

1 Scope

This part of ISO/IEC 15459 specifies the common rules applicable for unique identification that are required to ensure full compatibility across different identities.

2 Normative references

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

ISO/IEC 646, *Information technology — ISO 7-bit coded character set for information interchange*

ISO/IEC 15459-2, *Information technology — Automatic identification and data capture techniques — Unique identification — Part 2: Registration procedures*

ISO/IEC 19762-1, *Information technology — Automatic identification and data capture (AIDC) techniques — Harmonized vocabulary — Part 1: General terms relating to AIDC*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 19762-1 and the following apply.

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

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

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

3.1
entity
anything (physical or non physical) having a distinct existence

Note 1 to entry: In the context of supply chain management it often refers to an item (product or service) which can be individually considered and identified.

3.2
string
characters assigned to an entity constructed using the specific rules of the Issuing Agency to create an unambiguous number within the context of the specific parts of ISO/IEC 15459

Note 1 to entry: The structure of the string is specified in ISO/IEC 15459-3 and begins with the IAC component in the ISO/IEC 15459 Register.

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3.3
qualifier
one or more characters referring to an entity, providing the meaning of the string data

Note 1 to entry: Examples of qualifiers are DIs, AIs and OIDs.

3.4
identity
combination of qualifier and string which distinguishes an entity from other entities

Note 1 to entry: Some parts of this standard allow for multiple qualifier/string combinations as an identity.

Note 2 to entry: In other standards or documents the UII is referring to the identity.

3.5
Issuing Agency
organization entrusted by the Registration Authority to assign company identifying numbers in line with the requirements of ISO/IEC 15459-2

3.6
Issuing Agency Code
one or more characters assigned by the Registration Authority to an Issuing Agency making it recognizable and distinct from other issuing agencies

3.7
Company Identifying Number
one or more characters assigned by the Issuing Agency to an identity issuer making the issuer recognizable and distinct from other issuers

3.8
identification
process (act) of assigning an identity to an entity

3.9
identifying
process of recognizing an entity by accessing its identity

4 Abbreviated terms

AI	Application Identifier
AIDC	Automatic Identification and Data Capture
CIN	Company Identifying Number
DI	Data Identifier
IA	Issuing Agency
IAC	Issuing Agency Code
OID	Object Identifier
RA	Registration Authority

5 Distinguishing between identities

ISO/IEC 15459 recognizes types of identities, each type being used to identify a specific level, meaning, handling, role, etc. An organization may adopt the usage of one or more such types.

ISO/IEC 15459-2 requires Issuing Agencies to define rules that ensure that no identity issuer can allocate a duplicate identity within a given type. Organisations making use of an identity should ensure that identities for different types are treated as distinct references.

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