INTERNATIONAL STANDARD

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Information technology — Structure for the identification of organizations and organization parts —

Part 1:
Identification of organization identification schemes

Technologies de l'information — Structure pour l'identification des organisations et des parties d'organisations —

Partie 1: Identification des systèmes d'identification d'organisations

Reference number
ISO/IEC 6523-1:1998(E)

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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. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

International Standard ISO/IEC 6523-1 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 32, *Data management services*.

This edition, together with ISO/IEC 6523-2:1998, cancels and replaces ISO 6523:1984, which has been technically revised.

ISO/IEC 6523 consists of the following parts, under the general title *Information technology — Structure for the identification of organizations and organization parts*:

— *Part 1: Identification of organization identification schemes*

— *Part 2: Registration of organization identification schemes*

Annex A forms an integral part of this part of ISO/IEC 6523. Annex B is for information only.

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Introduction

The increased use of data processing and telecommunications capabilities in commercial, governmental and other applications has made possible the interchange of information in an effective machine-processable form. As this type of automated interchange increases, the need for International Standards covering data also increases. ISO/IEC 6523 defining a structure for a globally unique and unambiguous identification of organizations and organization parts is one of a number of International Standards that have been developed as a means for improving the accuracy and effectiveness of data processing and data interchange.

In the development of this part of ISO/IEC 6523, it has been recognized that a single method for identifying all organizations on an international basis is neither feasible nor practicable. Instead, this part of ISO/IEC 6523 recognizes existing methods of identification and provides a means for systematically incorporating these in a uniform structure for the purposes of information interchange. In this part of ISO/IEC 6523 an organization may be identified by more than one identification method.

The use of the structure for the identification of organizations and organization parts, for the purpose of interchange of information, will:

a) Improve the accuracy of the identification of organizations and organization parts, and hence of the interchange of data;

b) reduce the need for human intervention in the interchange of information in machine-to-machine environments;

c) diminish the time required to specify interchange agreements;

d) as a consequence of the foregoing, reduce the cost of the interchange of data.

Examples illustrating the use of the structure for the identification of organizations and organization parts are given in informative annex B.

The significant changes since the preceding edition of ISO/IEC 6523 (1984) are the following:

— The standard has been split into two parts, according to the ISO/IEC rules for the elaboration of standards;

— The organization name has been removed from the structure;

— The format of the ICD has been changed to variable length;

— The length limit for the organization identifier has been changed to 35 characters;

— The restrictions on the types of characters in the organization identifier have been removed;

— The identification of organization parts, which was only implicit in the preceding version of the standard, through the generic definition given for the word "organization", is now explicit, through a separate data element;

— A component has been added for the specification of the source of the Organization Part identifier.

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Information technology — Structure for the identification of organizations and organization parts —

Part 1:
Identification of organization identification schemes

1 Scope

1.1 This part of ISO/IEC 6523 specifies a structure for globally and unambiguously identifying organizations, and parts thereof, for the purpose of information interchange.

This part of ISO/IEC 6523 also makes recommendations regarding cases where prior agreements may be concluded between interchange partners.

1.2 This part of ISO/IEC 6523 does not specify file organization techniques, storage media , languages, etc. to be used in its implementation.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 6523. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO/IEC 6523 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO/IEC 6523-2:1998, *Information technology — Structure for the identification of organizations and organization parts — Part 2: Registration of organization identification schemes.*

ISO/IEC 11179-3:1994, *Information technology — Specification and standardization of data elements — Part 3: Basic attributes of data elements.*

3 Definitions

For the purposes of this part of ISO/IEC 6523, the following definitions apply.

NOTE 1: When a word or phrase appears in italics within a definition, this means that a definition exists in this part of ISO/IEC 6523 for this word or phrase.

NOTE 2: The definitions being presented in a logical order, an alphabetic list is included.

Alphabetic list of the definitions	***Subclause***
character repertoire	*3.14*
data element	*3.3*
data element value	*3.4*
ICD	*3.8*
ICD value	*3.9*
identification scheme	*3.6*
identifier	*3.5*
International Code Designator value, ICD value	*3.9*
International Code Designator, ICD	*3.8*
OPI	*3.11*
OPI source indicator (OPIS)	*3.12*
OPIS value	*3.13*
organization	*3.1*
organization identification scheme	*3.7*
organization identifier	*3.10*
organization part	*3.2*
organization part identifier (OPI)	*3.11*

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3.1 organization: A unique framework of authority within which a person or persons act, or are designated to act, towards some purpose.

NOTE 3: The kinds of organizations covered by this part of ISO/IEC 6523 include the following examples:

a) an organization incorporated under law;
b) an unincorporated organization or activity providing goods and/or services including:

1) partnerships;
2) social or other non-profit organizations or similar bodies in which ownership or control is vested in a group of individuals;
3) sole proprietorships;
4) governmental bodies.

c) groupings of the above types of organizations where there is a need to identify these in information interchange.

3.2 organization part: Any department, service or other entity within an *organization*, which needs to be identified for information interchange.

3.3 data element: A unit of data for which the definition, identification, representation and permissible values are specified by means of a set of attributes (ISO/IEC 11179-3).

3.4 data element value: A value out of a set of permissible values pertaining to a *data element*.

3.5 identifier: A character or group of characters constituting a *data element value* used to identify or name an object and possibly to indicate certain properties of that object.

3.6 identification scheme: A system allocating *identifiers* to registered objects.

3.7 organization identification scheme: An *identification scheme* dedicated to the unique identification of *organizations*.

3.8 International Code Designator, ICD: The *data element* used to uniquely identify an *organization identification scheme.*

3.9 International Code Designator value, ICD value: The *identifier* allocated to a particular *organization identification scheme*.

3.10 organization identifier: The *identifier* assigned to an *organization* within an *organization identification scheme*, and unique within that scheme.

3.11 organization part identifier (OPI): An *identifier* allocated to a particular *organization part*.

3.12 OPI source indicator (OPIS): The *data element* used to specify the source for the *organization part identifier*.

3.13 OPIS value: The particular value (digit or capital letter) taken by the *OPIS* to designate the source of an *organization part identifier.*

3.14 character repertoire: A set of characters, considered independently of its encoding.

4 Structure for the identification of organizations and organization parts

The purpose of the structure for the identification of organizations and organization parts is to provide a global and unambiguous identification of one organization among all other organizations, and of any part of it as appropriate.

4.1 Components of the structure

The structure for the identification of organizations and organization parts consists of the following four components:

a) the International Code Designator (ICD);

b) the identification of an organization within an identification scheme: a data element containing an organization identifier;

c) the identification of an organization part: a data element containing an organization part identifier (OPI);

d) the OPI source indicator (OPIS): a data element containing a code value indicating the source of the OPI.

The third component, identification of an organization part, is optional. It is used when and only when one wants to designate a specific part within an organization.

The fourth component, the OPI source indicator (OPIS), shall not be used if the third component is not used; it is optional when the OPI is used.

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The format of these data elements is the following:

— ICD: integer, variable length, up to 4 digits;
— Identification of an organization: variable length, up to 35 characters;
— OPI: variable length, up to 35 characters;
— OPIS: 1 character.

No particular sequence of the four components is specified in this part of ISO/IEC 6523.

The structure is illustrated in figure 1. Examples of use of the structure are given in informative annex B.

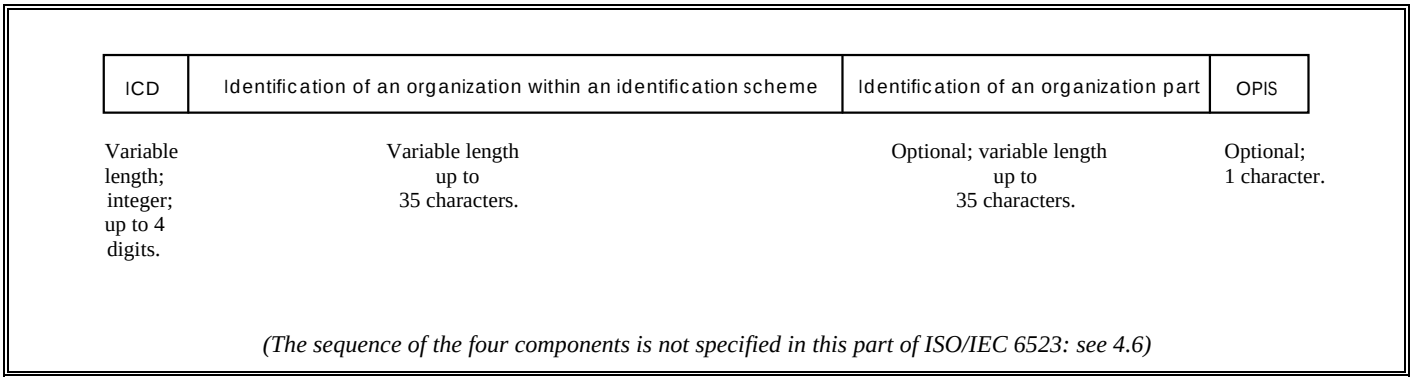


Figure 1 — The structure for the identification of organizations and organization parts

4.2 The International Code Designator (ICD)

4.2.1 The International Code Designator (ICD) is used to uniquely identify an organization identification scheme.

4.2.2 The ICD values are all integers from 1 to 9999. The ICD may be transmitted as a variable-length data element; conversely, if transmitted in a 4 digit fixed length field, leading zeros shall be added to complete the format to 4 digits if the ICD value is less than 1000.

4.2.3 An International Code Designator value is allocated to an organization identification scheme in accordance with the procedure specified in ISO/IEC 6523-2.

4.2.4 The ICD value allocated to an organization identification scheme shall be unique.

4.2.5 To guarantee unique identification of organization identification schemes, an ICD value once assigned shall not be reallocated.

4.2.6 ICD values reserved for special use are specified in clause 5.

4.3 The identification of an organization within an identification scheme

4.3.1 An organization is identified within an identification scheme by the identifier allocated to it within that scheme. The identification scheme is identified by the ICD value.

4.3.2 The identifier allocated to an organization within an identification scheme shall be unique within the identification scheme.

4.3.3 The length of the identifier shall be of maximum 35 characters.

4.3.4 The format of the identifier, including the actual number of characters and character repertoire used, shall comply with the identification scheme as documented upon registration, in accordance with ISO/IEC 6523-2.

4.4 The identification of an organization part

4.4.1 Purpose and usage

4.4.1.1 The purpose of the identification of an organization part is to facilitate, through an Organization Part Identifier (OPI), the reference to any department, service or other entity within an organization, which needs to be identified for information interchange.

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4.4.1.2 Organization part identifiers may be allocated:

a) either by the scheme identifying the organization (in addition to the identifier of the organization itself);

b) or by another method, specified at the initiative of the organization or by agreement between the interchange partners.

NOTE 4:

— In case "b", the identifier may be for example *created* by the organization, or *chosen* by it using an external source of identifiers other than the one used for the identification of the organization.

— A combination of approaches "a" and "b" may also be used, for example if the organization part identifier used is an identifier created by the scheme identifying the organization, *completed* by a sub-identifier coming from another source.

4.4.1.3 When the identification of organization parts is done by the organizations themselves, and except if otherwise specified by the rules governing the identification scheme:

— some organizations may choose to allocate identifiers to parts of themselves, other may choose not to do so.

— changes in the list of parts identified by the organization, and to the identifiers allocated to them, are managed by the organization itself, at its own initiative.

4.4.2 Rules

4.4.2.1 The identifier allocated to a part of organization shall be unique within that organization.

4.4.2.2 The length of the identifier shall be of maximum 35 characters.

4.4.2.3 When identifiers have been allocated to parts of an organization, and except if otherwise specified by the rules governing an identification scheme, the transmission of these identifiers as components of the structure remains optional.

4.5 The Organization Part Identifier Source indicator (OPIS)

4.5.1 Purpose

Interchange partners may use various types of OPI, depending, for example, of the type of organization parts they want to designate, or of requirements proper to a given category of interchanges. For example they may use in some cases identifiers allocated by third parties such as a public administration; in other cases they will use identifiers allocated freely by the organization itself; etc.

The purpose of the OPI source indicator (OPIS) is to allow specifying the source for the Organization Part Identifier.

4.5.2 Rules

4.5.2.1 The OPIS, when used (see 4.1), shall have a length of 1 character, and be a digit (0 to 9) or a capital letter (A to Z).

4.5.2.2 The following values of the OPIS shall have the following meaning:

0: The OPI is allocated by the issuing organization managing the Identification Scheme specified in the ICD;

NOTE 5: Such a case may exist only if the Organization identification scheme, in addition to allocating identifiers to organizations, also allocates identifiers to parts of these organizations [see 4.4.1.2 a)].

1: The OPI is other than in the case of value "0" above, and is selected by the organization specified in the organization identifier;

9: The OPI used is selected according to agreements between the interchange partners.

4.5.2.3 If the OPI used is a combination of an identifier allocated by the issuing organization managing the Identification Scheme specified in the ICD, and of a complementary identifier allocated by other means (for example by the organization itself), the values 0 and 1 shall not be used.

4.5.2.4 OPIS values 2 to 8 are reserved for future use.

4.5.2.5 Alphabetic values of the OPIS may be used to specify, at an international, national or sectorial level, or within the framework of an interchange agreement, particular organization parts identification systems.

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4.6 Mechanism for association of the ICD value, the organization identifier, the organization part identifier and the OPIS value

The mechanism by which the ICD value, the organization identifier, the organization part identifier (when used), and the OPIS value (when used) are associated is not specified in this part of ISO/IEC 6523. It may include implicit use of ICD value (e.g. prior agreement between interchanging partners allowing for its omission in the actual interchange) as well as explicit interchange of ICD value together with the organization identifier and, if used, the organization part identifier and the OPIS value. Any syntax (including eventually the use of separators) may be agreed for this purpose.

5 Reserved ICD values

5.1 Interchanging partners may want, by prior agreement, to interchange organization identifiers allocated by an identification scheme to which no ICD value has been assigned, or for which the assignment of an ICD value is pending.

The following range of ICD values is reserved to this effect:

9900 - 9999

The interchange partners shall agree on the identification of the identification scheme, using one of the above reserved values.

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Annex A
(normative)

Specification of attributes of the International Code Designator (ICD) and of the Organization Part Identifier Source indicator (OPIS)

A.1 General

For the purposes of this part of ISO/IEC 6523, the technical specifications of the ICD and of the OPIS are given in this annex, in accordance with ISO/IEC 11179-3. They shall be implemented for the registration of organization identification schemes and may support those preparing for or using organization identifiers or organization part identifiers in information interchange.

NOTE 6: There is in this annex no specification of attributes for the data element "Identification of an organization" nor for the OPI because their precise specification will depend on the identification schemes used.

I - International Code Designator (ICD):

Name:	**International Code Designator**
Abbreviated name:	**ICD**
Version:	**2**
Definition:	**Data element used to uniquely identify an organization identification scheme**
Representation category:	**Character representation**
Form of representation:	**Code**
Datatype of data element values:	**Integer**
Maximum size of data element values:	**4**
Minimum size of data element values:	**1**
Comment on representation:	**Leading zeros are optional**
Permissible data element values:	**— Identifiers for the Organization identification schemes that have been registered according to ISO/IEC 6523:1998** **— and values 9900 to 9999 (reserved for use by agreement between interchange partners)**
Validity category for usage:	**Information interchange**
Responsible organization:	**ISO/IEC JTC 1/SC 14**
Registration status:	**International Standard**
Source document	**ISO/IEC 6523:1998**

II - Organization Part Identifier Source indicator:

Name:	**Organization Part Identifier Source indicator**
Abbreviated name:	**OPIS**
Version:	**1**
Definition:	**Data element used to specify the source for the organization part identifier**

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Representation category:	**Character representation**
Form of representation:	**Code**
Datatype of data element values:	**Character**
Maximum size of data element values:	**1**
Minimum size of data element values:	**1**
Permissible data element values:	**0 to 9; A to Z**
Validity category for usage:	**Information interchange**
Responsible organization:	**ISO/IEC JTC 1/SC 14**
Registration status:	**International Standard**
Source document	**ISO/IEC 6523:1998**

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Annex B
(informative)

Examples of use of the structure

Table B.1 illustrates on a real example the structure for the identification of organizations and organization parts.

Table B.1 — An example of use of the structure

0002	780129987	01892	0
ICD value for the French register "SIRENE"	Identifier allocated to the company "Renault" by the register "SIRENE"	Identifier of the plant of the company "Renault" located in "Flins"	The identifier of the plant is allocated by "SIRENE"

Table B.2 illustrates examples of use of the structure in transmission. In this table "x" means any character part of an ICD value, "y" any character part of an organization identifier, "z" any character part of an organization part identifier, and "s" the presence of the OPIS.

Table B.2 — Examples of transmission using the structure

Example No.	Machine-to-machine communication	Comments
1	xxx/yyyyyyy	3 character ICD value (transmitted as a variable length data element); the separator used is a slash; no organization part is specified.
2	xxxx/yyyyyyyyyyyyyy/zzzzzzzzzzzzzzzzzzzzz	4 character ICD value; the separator used is a slash; the length of the organization identifier is 14; an organization part identifier is transmitted; the OPIS is not used.
3	yyyyyyyyy:xxxx	The separator used is a colon; case of a syntax placing the identification of the scheme (ICD value) after the organization identifier.
4	yyyyyyyyyyyyzzzzzzzz:xxxx:s	The organization identifier is transmitted first, as in example 3. In addition, the organization identifier and the organization part identifier are transmitted in sequence, without any syntactical separator; this requires for example that the organization identifier has a fixed length known by the receiver, or that a character never used in the organization identifier is used as first character of the organization part identifier. The OPIS value is transmitted.

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Descriptors: data processing, information interchange, data elements, coded representation, data codes, identification methods.

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