
Information technology — Codes for the representation of human sexes

*Technologies de l'information — Codes de représentation des sexes
humains*

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ISO/IEC 5218:2022

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Contents

	Page
Foreword.....	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Representation of human sexes	2
5 Designation	2
6 Qualification	2
Annex A (informative) Codes for the representation of human sexes supporting (linguistic) cultural adaptability	3
Bibliography	14

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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.

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 or www.iec.ch/members_experts/refdocs).

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) or the IEC list of patent declarations received (see <https://patents.iec.ch>).

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

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html. In the IEC, see www.iec.ch/understanding-standards.

This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 32, *Data management and interchange*.

This second edition cancels and replaces the first edition (ISO/IEC 5218:2004), of which it constitutes a minor revision.

The changes are as follows.

- clarification that the scope of this standard does not provide codes for human gender identities;
- the mandatory Normative references and Terms and definitions clauses have been added and subsequent clauses have been renumbered.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html and www.iec.ch/national-committees.

Information technology — Codes for the representation of human sexes

1 Scope

This document specifies a uniform representation of human sexes for the interchange of information. It is intended to:

- reduce the time required to record and/or format the representation of sexes and transmit the corresponding data;
- improve clarity and accuracy of interchange;
- minimize the amount of human intervention required for communicating the representation of sexes; and
- reduce costs.

This document does not prescribe file sequences, storage media, programming languages, or other features of information processing to be used in its implementation.

This document meets the requirements of most applications that need to code human sexes. It does not provide codes for sexes that can be required in specific medical and scientific applications or in applications that need to code sex information other than for human beings. It also does not provide codes for human gender identities that can be required in other applications.

This document does not supplant national standards for coding sexes that are designed based upon codes derived from names of sexes in the various languages (for example “M” for “male” and “F” for “female” in the English language). It provides a numeric code that is independent of language-derived codes and as such is intended to provide a common basis for the international exchange of information containing human sex data elements.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

No terms and definitions are listed in this document.

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

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

4 Representation of human sexes

Human sex is represented by a one-character numeric code.

The following data elements and codes are used:

Data elements	Code
Not known	0 (zero)
Male	1 (one)
Female	2 (two)
Not applicable	9 (nine)

5 Designation

The use of this document and associated code may be referred to by the designation “SEX”.

6 Qualification

No significance is to be placed upon the fact that “Male” is coded “1” and “Female” is coded “2”. This document was developed based upon predominant practices of the countries involved and does not convey any meaning of importance, ranking or any other basis that can imply discrimination.

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Annex A (informative)

Codes for the representation of human sexes supporting (linguistic) cultural adaptability

A.1 General

When ISO 5218 first became an International Standard in 1977, ISO/IEC JTC1 did not exist. This second edition is now identified as ISO/IEC 5218:2004 (E/F). In addition, in 1997, ISO/IEC JTC1 adopted three strategic directions which its standards should support namely “portability”, “interoperability”, and “cultural adaptability”. The rise of the use of the Internet underscores the validity of the need for these three strategic directions to be supported for any International Standard which involves “human interface equivalents”. To provide an illustrative example for addressing these three strategic directions of ISO/IEC JTC1, Annex A has been added.

A.2 Purpose of [Annex A](#)

The purpose of [Annex A](#) is two-fold:

- a) to provide a simple, easily understood example of an application and implementation of the three strategic directions of ISO/IEC JTC1 and how they can interwork;
- b) to provide an example of unique unambiguous referencing and identification of a semantic component both among heterogeneous IT systems, i.e., at the IT Interface, on the one hand, and on the other, that of the multiple possible human interface equivalents, be they of a linguistic, symbolic¹⁾, multimedia, etc., nature (including provision for human interface requirements for the disabled, such as Braille and Bliss, etc.).

A.3 Structure of [Annex A](#)

The structure of the tables in [Annex A](#) is illustrative.²⁾ Table ID “ISO/IEC05218:01” specifies the international representations of human interface equivalent (linguistic) expression (or representations) in official languages of the ISO and/or UN. It also makes provision for capturing human interface (linguistic) equivalents as found in International Standards to assist the disabled.

Table ID “ISO/IEC05218:02” specifies the human equivalent linguistic representations of the four ID codes for the representation of the human sexes in nation-state jurisdictions, i.e., “countries” and, where applicable, the use of one or more official languages in each country.³⁾

The countries listed in this illustrative example are the JTC1/SC32 P-member countries which through their participation in JTC1/SC32 plenary meetings and/or through e-mails to their national bodies “signed off” on their human interface equivalent (linguistic) values as presented in [Table 02](#).

1) For an example of symbolic representations of human sexes, see the ISO Bulletin, January 2000, page 3.

2) It is recognized that the terms in this document, i.e. “male” and “female”, are adjectives. As such, in many natural languages they are subject to concords, namely their gender and plurals. This issue is outside the scope of this Annex.

3) Some UN recognized nation-states do not have a declared “official language”. Where this is the case, there usually is a *de facto* language. This and related issues are addressed in a more formal and systematic manner in ISO/IEC 15944-5.

Natural languages such as Chinese, English, French, German, Portuguese, Spanish, etc., when used and applied in differing jurisdictions at times use different equivalent linguistic written representations for a particular semantic component based on the same natural language. For example, the human interface equivalent linguistic expression for “potato” in Germany's use of the German language is “Kartoffel”, while in Austria's use of the German language, it is “Erdappfel”, or in Spain's use of the Spanish language it is “patata”, and in Mexico's use of the Spanish language it is “papa”.

In addition, one needs to be able to support the requirement that, at the national level, a country might have more than one official language.

[Table 02](#), Table ID “ISO/IEC05218:02”, uses the 3-digit country codes from ISO 3166-1 because the 2-alpha country codes and the 2-alpha language codes can be confused with one another. In many instances, they do differ. The 3-alpha language codes are always represented in lower case, which differentiates them from the 3-alpha currency codes (ISO 4217) and 3-alpha country codes (ISO 3166 1), which use upper case.

Taking Canada as an example, it has two (2) official languages and thus two (2) “official” human interface equivalent linguistic expressions identified as “124:eng” and “124:fra”. Or taking Switzerland as an example, it has three official languages and therefore three (3) human interface equivalent linguistic expressions identified as “756:deu”, “756:fra”, and “756:ita”⁴⁾, where:

- 124 and 756 are the 3-digit numeric codes assigned by the UN to Canada and Switzerland respectively (these are also repeated in ISO 3166-1); and,
- “eng”, “fra”, “deu”, and “ita” are the 3-alpha codes for names of languages (based on ISO 639-2/T⁵⁾).

A.4 Human interface equivalents (linguistic) for “Codes for the representation of human sexes: ISO and/or UN languages” — [Table 01](#)

[Table 01](#) consists of four written linguistic human interface equivalents (HIEs). They all represent the use of writing systems. The first three HIE columns are utilized to represent official languages of both the United Nations (UN) and the International Organization for Standardization (ISO).

Of the six official languages of the UN⁶⁾ not all are used all the time in the bodies, commissions and committees of the UN, i.e., as “working languages”. For example, in the UN Sub-Commission on the Promotion and Protection of Human Rights, the working languages are English, French and Spanish and these are used in the example below, i.e. in [Table 01](#).

Other examples of human interface equivalents (linguistic) include sign language (a visual linguistic communication form), Braille (a “written” three-dimensional linguistic communication form), Bliss, etc. Here the first two, i.e. sign language and Braille, do not readily lend themselves as examples for incorporation in this annex. Consequently, Bliss was chosen.

“Blissymbolics” is a communication system developed, originally by Charles K. Bliss, as an international communication system for use by handicapped persons and persons having communication, language and learning difficulties.

Blissymbolics is a language currently composed of over 2 000 graphic symbols which can be combined and recombined to create new symbols in order to capture the semantics, i.e. meaning, of both abstract and concrete levels of concepts to be communicated. As such Blissymbolics can be applied for use by

4) Note that “roh” (Rhaeto-Romance) is a “national” but not an “official language” of Switzerland and thus is not included in Table ID “ISO/IEC05218:02”.

5) For an analysis of ISO standards for codes representing names of languages, see ISO/IEC JTC1/SC32 N0672, “Need for a standard ‘default’ convention for referencing ISO 639-2 in Open-edi business transactions and e-commerce, e-business, etc.”. Available at the JTC1/SC32 website: <<http://www.jtc1sc32.org>>.

6) The United Nations uses six official languages: (1) English; (2) French; (3) Spanish; (4) Arabic; (5) Chinese; and, (6) Russian. (The ISO 639-2/T language codes are: eng, fra, spa, ara, zho, and rus, respectively). The official languages of the ISO are English, French and Russian.

both children and adults as well as for persons with a range of intellectual abilities. Both physical devices (e.g. communication boards mounted on wheelchairs) and computer software exist to support Blissymbolics.

Table 01 — Human interface equivalents (linguistic) for “Codes for the representation of human sexes: ISO and/or UN languages”

IT interface		Human interface equivalents (linguistic)			
Table ID	ID code	ISO/UN English	ISO/UN French	ISO/UN Spanish	Blissymbol ^a
ISO/IEC 05218:01	0	not known	inconnu	desconocido	
ISO/IEC 05218:01	1	male	masculin	masculino	
ISO/IEC 05218:01	2	female	féminin	femenino	
ISO/IEC 05218:01	9	not applicable	sans objet	no aplica	

^a See <https://www.blissymbols.or> for further information.

With respect to the Blissymbolics included in Table 01, one notes that,

- the dot before and after the “evaluation” indicator denotes an evaluation before and after the fact. Since “not known” is after the fact and “not applicable” is before the fact, the dot has been positioned accordingly;
- the Blissymbolics for male and female incorporate those for “man” and “woman”; and
- “known” is derived from the verb to “know” which is based on the mind symbol and the shape of the base of “house”. Here “knowledge” relies on a “store house of the mind” analogy.

The Blissymbols as such have not yet been registered as “characters” and combinations of ISO/IEC 10646 characters (noted here via their “10646” registration numbers) were used as follows:

- “not” is 15733. For “known”, you need “knowledge”, 15162 and then the “description indicator” needs to be added. Its number is 8998.
- “male” is 15415 and again, to make it an adjective, the “description indicator” needs to be added. Its number is 8998.
- “female” is 14166 but in order to make it an adjective, the “description indicator” needs to be added. Its number is 8998.
- “not” is 15733, “after the fact” added. Its number is 8996. For “applicable” you need “to use” 17991 but with the action (verb) indicator removed and “description before the fact” added. Its number is 8997.

A.5 Human interface equivalents (linguistic) for “Codes for the representation of human sexes: Examples of countries and their official language(s)” — Table 02

Table 02 — Human interface equivalents (linguistic) for “Codes for the representation of human sexes: Examples of countries and their official language(s)”

IT interface		Human interface equivalents (linguistic)				
Table ID	ID code	Australia	Austria	Belgium		Brazil
		036:eng	040:deu	056:fra	056:nld	076:por
ISO/IEC 05218:02	0	not known	unbekannt	inconnu	niet bekend	desconhecido
ISO/IEC 05218:02	1	male	männlich	masculin	man	masculino

Table 02 (continued)

IT interface		Human interface equivalents (linguistic)				
Table ID	ID code	Australia	Austria	Belgium		Brazil
		036:eng	040:deu	056:fra	056:nld	076:por
ISO/IEC 05218:02	2	female	weiblich	féminin	vrouw	feminino
ISO/IEC 05218:02	9	not applicable	nicht zutreffend	sans objet	niet van toepassing	nenhuma resposta

Table ID	ID code	Canada		China	Denmark	
		124:eng	124:fra	156:zho	208:dan	
ISO/IEC 05218:02	0	not known	inconnu	不明	ukendt	
ISO/IEC 05218:02	1	male	masculin	男	man	
ISO/IEC 05218:02	2	female	féminin	女	kvinne	
ISO/IEC 05218:02	9	not applicable	sans objet	不适用	gjelder ikke	

Table ID	ID code	Finland	France	Germany	Italy	
		246:fin	246:swe	250:fra	276:deu	380:ita
ISO/IEC 05218:02	0	tuntematon	okänd	inconnu	unbekannt	sconosciuto
ISO/IEC 05218:02	1	mies	man	masculin	männlich	maschio
ISO/IEC 05218:02	2	nainen	kvinna	féminin	weiblich	femmina
ISO/IEC 05218:02	9	ei sovellu	inte lämplig	sans objet	nicht zutreffend	non applicabile

Table ID	ID code	Japan	Korea	Netherlands	Norway	Russian Federation
		392:jpn	410:kor	528:nld	578:nor	643:rus
ISO/IEC 05218:02	0	不明	알수없음	niet bekend	uvisst	неизвестный
ISO/IEC 05218:02	1	男	남	man	mann	мужской
ISO/IEC 05218:02	2	女	여	vrouw	kvinne	женский
ISO/IEC 05218:02	9	適用不能	적용 불가	niet van toepassing	gjelder ikke	не применяется

Table ID	ID code	Sweden	Switzerland		
		752:swe	756:deu	756:ita	756:fra
ISO/IEC 05218:02	0	okänd	unbekannt	sconosciuto	inconnu
ISO/IEC 05218:02	1	man	männlich	maschio	masculin
ISO/IEC 05218:02	2	kvinna	weiblich	femminile	féminin
ISO/IEC 05218:02	9	inte llämpbar	nicht zutreffend	non applicabile	sans objet

Table ID	ID code	United Kingdom	United States of America
		826:eng	840:eng
ISO/IEC 05128:02	0	not known	not known
ISO/IEC 05128:02	1	male	male
ISO/IEC 05128:02	2	female	female
ISO/IEC 05128:02	9	not applicable	not applicable

A.6 Representations of Table ID “ISO/IEC05218:02” using XML

A.6.1 Overview

The authored XML content of Table ID “ISO/IEC05218:02” are document in the following subclauses:

- [A.6.2](#)⁷⁾, which provides the RELAX-NG⁸⁾ document model (in compact syntax) for the content; and,
- [A.6.3](#), which provides the XML content of Table ID “ISO/IEC05218:02”.⁹⁾

A.6.2 RELAX-NG document model (compact syntax)

```
# $Id: equivs.rnc,v 1.3 2003/05/25 13:02:44 G. Ken Holman Exp $

# This is the compact expression of an ISO/IEC 19757-2 RELAX-NG document
# model for tabular information of coded values.

# Validation of XML files using this document model is provided by the
# Jing validator obtained from:
#
# http://www.thaiopensource.com/relaxng/jing.html
#
# Typical invocation:
#
# jing -c equivs.rnc tISOIEC05218-02.xml

# Original version authored by Crane Softwrights Ltd.
```

7) For [A.6.2](#) and [A.6.3](#), there is only a single XML-based representation.

8) The RELAX-NG document model is based on and conformant to ISO/IEC 19757-2.

9) A sample invocation of a validation tool for confirming that the table conforms to the document model expected by the stylesheet utilized by this document is provided below. The RNC file documents the location of the Jing utility, so all the sample invocation need document is the command line:
jing -c equivs.mc tISOIEC05218-02.xml