INTERNATIONAL STANDARD

ISO

10585

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Information and documentation — Armenian alphabet coded character set for bibliographic information interchange

Information et documentation — Jeu de caractères codés de l'alphabet arménien pour les échanges d'informations bibliographiques

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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

International Standard ISO 10585 was prepared by Technical Committee ISO/TC 46, *Information and documentation*, Subcommittee SC 4, *Computer applications in information and documentation*.

Annexes A and B of this International Standard are for information only.

Information and documentation — Armenian alphabet coded character set for bibliographic information interchange

1 Scope

1.1 This International Standard specifies a set of 83 graphic characters and their coded representations. It consists of a code table and a legend showing each graphic and its name. Explanatory notes are also included. The character set is primarily intended for the interchange of information among data processing systems and within message transmission systems.

1.2 These characters constitute a character set for the international interchange of bibliographic citations, including their annotations, in the Armenian alphabet.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard 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 646:1991, *Information technology — ISO 7-bit coded character set for information interchange.*

ISO/IEC 2022:1994, *Information technology — Character code structure and extension techniques.*

International register of character sets to be identified by means of escape sequences. [1]

3 Implementation

3.1 The implementation of this coded character set in physical media and for transmission, taking into account the need for error checking, is the subject of other International Standards (see annex B).

3.2 The implementation of this International Standard is in accordance with the provisions of ISO/IEC 2022 [2] and is identified by an escape sequence. (To be assigned.)

3.3 The unassigned positions in the code tables shall not be utilized in the international interchange of bibliographic information.

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1) Available on application to the Secretariat of the Registration Authority: ECMA, 114 rue du Rhône, CH-1204 Genève, Switzerland.

2) G0: ESC 2/8 F; G1: ESC 2/9 F; G2: ESC 2/10 F; G3: ESC 2/11 F ("F" represents the final character of the escape sequence).

4 Code table for the Armenian alphabet

Table 1 is the code table for the Armenian alphabet.

Table 1

b7					0	0	0	0	1	1	1	1
b6					0	0	1	1	0	0	1	1
b5					0	1	0	1	0	1	0	1
b4	**b3**	**b2**	**b1**		0	1	2	3	4	5	6	7
0	0	0	0	0				Հ	ր	▨	h	ք
0	0	0	1	1			Ա	Ձ	Յ	ա	ձ	ց
0	0	1	0	2			Բ	Ղ	Ի	բ	ղ	ւ
0	0	1	1	3			Գ	Ճ	Փ	գ	ճ	փ
0	1	0	0	4			Դ	Մ	Ֆ	դ	մ	ֆ
0	1	0	1	5			Ե	Յ	0	ե	յ	օ
0	1	1	0	6			Զ	Ն	Ֆ	զ	ն	փ
0	1	1	1	7			Է	Շ	▨	է	շ	▨
1	0	0	0	8			Ը	Ո	＼	ը	ո	—
1	0	0	1	9			Թ	Չ	'	թ	չ	-
1	0	1	0	A			Ժ	Պ	˘	ժ	պ	"
1	0	1	1	B			Ի	Ջ	▨	ի	ջ	▨
1	1	0	0	C			Լ	Ռ	:	լ	ռ	.
1	1	0	1	D			Խ	Ս	,	խ	ս	´
1	1	1	0	E			Ծ	Վ	ˆ	ծ	վ	~
1	1	1	1	F			Կ	Տ	˛	կ	տ	

▨ Reserved for future standardization

5 Legend

Table 2 gives the code, graphic and name of each character and comments on usage for some special characters, particularly, Armenian marks of punctuation.

Table 2

Code	Graphic	Name	Comments
21	Ա	ARMENIAN CAPITAL LETTER AYB	
22	Բ	ARMENIAN CAPITAL LETTER BEN	
23	Գ	ARMENIAN CAPITAL LETTER GIM	
24	Դ	ARMENIAN CAPITAL LETTER DA	
25	Ե	ARMENIAN CAPITAL LETTER ECH	
26	Զ	ARMENIAN CAPITAL LETTER ZA	
27	Է	ARMENIAN CAPITAL LETTER EH	
28	Ը	ARMENIAN CAPITAL LETTER ET	
29	Թ	ARMENIAN CAPITAL LETTER TO	
2A	Ժ	ARMENIAN CAPITAL LETTER ZHA	
2B	Ի	ARMENIAN CAPITAL LETTER INI	
2C	Լ	ARMENIAN CAPITAL LETTER LIWN	
2D	Խ	ARMENIAN CAPITAL LETTER XEH	
2E	Ծ	ARMENIAN CAPITAL LETTER CA	
2F	Կ	ARMENIAN CAPITAL LETTER KEN	
30	Հ	ARMENIAN CAPITAL LETTER HO	
31	Ձ	ARMENIAN CAPITAL LETTER JA	
32	Ղ	ARMENIAN CAPITAL LETTER GHAD	
33	Ճ	ARMENIAN CAPITAL LETTER CHEH	
34	Մ	ARMENIAN CAPITAL LETTER MEN	
35	Յ	ARMENIAN CAPITAL LETTER YI	
36	Ն	ARMENIAN CAPITAL LETTER NOW	
37	Շ	ARMENIAN CAPITAL LETTER SHA	
38	Ո	ARMENIAN CAPITAL LETTER VO	
39	Չ	ARMENIAN CAPITAL LETTER CHA	
3A	Պ	ARMENIAN CAPITAL LETTER PEH	
3B	Ջ	ARMENIAN CAPITAL LETTER JHEH	
3C	Ռ	ARMENIAN CAPITAL LETTER RA	
3D	Ս	ARMENIAN CAPITAL LETTER SEH	
3E	Վ	ARMENIAN CAPITAL LETTER VEW	
3F	Տ	ARMENIAN CAPITAL LETTER TIWN	

Table 2 *(continued)*

Code	Graphic	Name	Comments
40	Ր	ARMENIAN CAPITAL LETTER REH	
41	Ց	ARMENIAN CAPITAL LETTER CO	
42	Ւ	ARMENIAN CAPITAL LETTER YIWN	
43	Փ	ARMENIAN CAPITAL LETTER PIWR	
44	Ք	ARMENIAN CAPITAL LETTER KEH	
45	Օ	ARMENIAN CAPITAL LETTER OH	
46	Ֆ	ARMENIAN CAPITAL LETTER FEH	
47		(This position shall not be used)	
48	\	ARMENIAN SIGN OF APPOSITION	Used also as a comma
49	'	ARMENIAN APOSTROPHE	
4A	‿	ARMENIAN LIGATURE MARK	
4B		(This position shall not be used)	
4C	:	ARMENIAN FULL STOP	Also called "vercaket"
4D	,	ARMENIAN COMMA	Also called "bout"; Used also as a colon
4E	՞	ARMENIAN QUESTION MARK	Also called "harc'akan nšan"; may be presented as superscript
4F	՝	ARMENIAN ABBREVIATION MARK	Also called "patiw"; may be presented as superscript
51	ա	ARMENIAN SMALL LETTER AYB	
52	բ	ARMENIAN SMALL LETTER BEN	
53	գ	ARMENIAN SMALL LETTER GIM	
54	դ	ARMENIAN SMALL LETTER DA	
55	ե	ARMENIAN SMALL LETTER ECH	
56	զ	ARMENIAN SMALL LETTER ZA	
57	է	ARMENIAN SMALL LETTER EH	
58	ը	ARMENIAN SMALL LETTER ET	
59	թ	ARMENIAN SMALL LETTER TO	
5A	ժ	ARMENIAN SMALL LETTER ZHE	
5B	ի	ARMENIAN SMALL LETTER INI	
5C	լ	ARMENIAN SMALL LETTER LIWN	
5D	խ	ARMENIAN SMALL LETTER XEH	
5E	ծ	ARMENIAN SMALL LETTER CA	
5F	կ	ARMENIAN SMALL LETTER KEN	

Table 2 *(concluded)*

Code	Graphic	Name	Comments
60	h	ARMENIAN SMALL LETTER HO	
61	ձ	ARMENIAN SMALL LETTER JA	
62	ղ	ARMENIAN SMALL LETTER GHAD	
63	ճ	ARMENIAN SMALL LETTER CHEH	
64	մ	ARMENIAN SMALL LETTER MEN	
65	յ	ARMENIAN SMALL LETTER YI	
66	ն	ARMENIAN SMALL LETTER NOW	
67	շ	ARMENIAN SMALL LETTER SHA	
68	ո	ARMENIAN SMALL LETTER VO	
69	չ	ARMENIAN SMALL LETTER CHA	
6A	պ	ARMENIAN SMALL LETTER PEH	
6B	ջ	ARMENIAN SMALL LETTER JHEH	
6C	ռ	ARMENIAN SMALL LETTER RA	
6D	u	ARMENIAN SMALL LETTER SEH	
6E	վ	ARMENIAN SMALL LETTER VEW	
6F	տ	ARMENIAN SMALL LETTER TIWN	
70	ր	ARMENIAN SMALL LETTER REH	
71	ց	ARMENIAN SMALL LETTER CO	
72	ւ	ARMENIAN SMALL LETTER YIWN	
73	փ	ARMENIAN SMALL LETTER PIWR	
74	ք	ARMENIAN SMALL LETTER KEH	
75	o	ARMENIAN SMALL LETTER OH	
76	ֆ	ARMENIAN SMALL LETTER FEH	
77		(This position shall not be used)	
78	—	DIRECT SPEECH SIGN	
79	-	HYPHEN SIGN	
7A	"	QUOTATION MARK	
7B		(This position shall not be used)	
7C	·	ARMENIAN SEMICOLON	Also called "mijaket"
7D	´	ARMENIAN EMPHASIS MARK	Also called "šešt"
7E	~	ARMENIAN EXCLAMATION MARK	Also called "bacʻagančʻakan"; may be presented as superscript

6 Explanatory notes

6.1 Spacing and non-spacing characters

The question mark (Ô 4E), the abbreviation mark (Ò 4F) and the exclamation mark (Õ 7E) are often printed or displayed above another character in the word they modify. They are coded before the letter above which they are to print or display. The BACKSPACE character (hexadecimal code 08 in ISO/IEC 646) is not used to identify these characters; they are non-spacing.

6.2 Punctuation and numerals

Punctuation marks and numerals in European style used with Armenian are available in the basic Cyrillic set (Registration No. 37 in the international register with which this set is designed for use).

6.3 Rendering of characters

The rendering of graphic characters is intended solely to identify letters of the Armenian alphabet uniquely. The graphics used do not necessarily represent the most desirable calligraphic forms.

6.4 Names of characters

The names of characters (but not codes) have been made to correspond as much as possible to those assigned in ISO/IEC 10646-1.

Annex A

(informative)

Development of the Armenian script

Armenian and Georgian, two of the multitudinous tongues spoken in the Caucasian region, are vehicles of millennial civilizations. Both languages present peculiar phonetic resemblances in spite of their completely different origins. Armenian is a member of the Indo-European language family. Georgian is a member of the Kartvelian language family. Each language has its own alphabet, which resemble one another, since the alphabets developed from the same source.

According to a persistent tradition, these two alphabets were invented (inspired by a godly vision!) by the Armenian monk, missionary and theologian Mesrop Mašt'oc' (ca. A.D. 360 to A.D. 439), who also invented an alphabet for the now extinct language Albani (or Caucasian Albanian). It seems more likely, however, that in the 4th century the Syriac bishop Daniel derived a script for the Armenian language from a Semitic alphabet, the Pahlavi script, used in Persia. As this was anything but a success, the script with its 22 letters being all too poor for the rich Armenian phonetic system, Mašt'oc', supported by Sahak the Great, the then katholikos of the Armenian church, improved it in (A.D. 406?) by adding 14 letters of Greek origin and of his own invention. He also switched the writing direction from the Semitic right-to-left orientation to left-to-right orientation in Greek fashion. Since then, Armenian has been written in a simple and phonemic way.

It is difficult to overestimate the importance of this alphabet for the Armenian people and their culture. In the Armenian church, Mesrop Mašt'oc' is venerated as a saint. The 5th century became the golden age of Armenian literature. The 5th century Classical or Old Armenian (also called *grabar*) evolved into a vulgar Armenian, which was rarely written, for *grabar*, although no longer a spoken language since the 10th century, survived as a written language and language of education until the 19th century. It is still used as an ecclesiastical language and as a learned language. This vulgar Armenian became, since the 16th century, the modern language of ašxarhabar, the language of everyday life, of newspapers and of belles-lettres. Owing to the phonetic evolution, the old spelling rules are no longer perfectly consistent with pronunciation, especially when rendering Western speech. In the Soviet Union, the spelling of Eastern speech was adapted by the present-day pronunciation in 1922.

Modern Armenian is split up into two dialect groups, each having its standard speech. East Armenian is spoken in the Republic of Armenia by 2 700 000 people, where it is the official language. It is also spoken by Armenian minorities (1 000 000 speakers) outside Armenia. West Armenian is spoken by the Armenian diaspora (1 800 000 speakers) in Asia Minor, the Near East and elsewhere in the world.

Annex B

(informative)

Bibliography

[1]   ISO 962:1974, *Information processing — Implementation of the 7-bit coded character set and its 7-bit and 8-bit extensions on 9-track 12,7 mm (0.5 in) magnetic tape.*

[2]   ISO 1113:1971, *Information processing — Representation of the 7-bit coded character set on punched tape.*

[3]   ISO 1155:1978, *Information processing — Use of longitudinal parity to detect errors in information messages.*

[4]   ISO 1177:1985, *Information processing — Character structure for start/stop and synchronous character oriented transmission.*

[5]   ISO 1745:1975, *Information processing — Basic mode control procedures for data communication systems.*

[6]   ISO 2375:1985, *Data processing — Procedure for registration of escape sequences.*

[7]   ISO/IEC 10646-1:1993, *Information technology — Universal Multiple-Octet Coded Character Set (UCS) — Part 1: Architecture and Basic Multilingual Plane.*

[8]   ABEGHIAN, Artasches. *Neuarmenische Grammatik: Ost- und Westarmenisch.* Berlin; Leipzig: De Gruyter (1936).

[9]   DIRINGER, David. *The alphabet.* 3rd ed. London: Hutchinson (1968).

[10] FEYDIT, Frédéric. *Manuel de langue arménienne: arménien occidental moderne.* Paris: Klincksieck (1948).

[11] FOSSEY, Charles. *Notices sur les caractères anciens et modernes.* Paris: Imprimerie nationale (1927).

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