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# Extended Latin Alphabet Coded Character Set for Bibliographic Use

**Abstract:** This standard establishes computer codes for an extended Latin alphabet character set to be used in bibliographic work when handling non-English items. The standard addresses special characters in languages using the Latin alphabet as well as combining marks (diacritics) required for romanization and transliteration. This standard establishes the 7-bit and 8-bit code values.

Developed by the National Information Standards Organization

Approved May 3, 1993 by the American National Standards Institute



Bethesda, Maryland, U.S.A.

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## **Foreword**

(This foreword is not a part of the American National Standard Extended Latin Alphabet Coded Character Set for Bibliographic Use, ANSI/NISO Z39.47-1993. It is included for information only.)

This standard for the extended Latin alphabet coded character set for bibliographic use was originally developed in 1985 by the Standards Committee on Coded Character Sets for Bibliographic Information Interchange of the American National Standards Committee on Library and Information Sciences and Related Publishing Practices, Z39, now the National Information Standards Organization.

The codes given in this standard may be identified by the use of the notation ANSEL. The notation ANSEL should be taken to mean the codes prescribed by the latest edition of this standard. To explicitly designate a particular edition of the standard when using the notation, the last two digits of the year of issue may be appended.

The standard establishes both the 7-bit and the 8-bit code values for the computer codes for characters used in bibliographic work when handling non-English items. The characters included in the codes have been selected because they are the ones needed to fully record bibliographic citations in many Latin alphabet languages and non-Latin languages transliterated into Latin alphabet characters.

The greater part of the extended Latin alphabet coded character set in this standard has been used for bibliographic work in the library community for over 20 years. Thus, it predates extended character set standardization that has recently been undertaken by the American National Standards Committee on Information Processing Systems, X3, and by the International Organization for Standardization, Technical Committee 46 on Information and Documentation and ISO-IEC JTC 1, Information Technology. The characters in column 4 (7-bit) or 12 (8-bit) are additions to this library set that have been identified as potentially useful in bibliographic work.

As of 1990, the library community used the 8-bit set specified in this standard (ASCII and ANSEL) with

the following exceptions: the characters defined in column 12 (8-bit) are not used; Greek characters a, b, and d and superscripts and subscripts for 0–9, (, ), +, - are added through escape sequences. The set just described constitutes what is commonly called the "ALA character set." It is also the USMARC character set, and as such it is fully described in the publication USMARC Specifications for Record Structure, Character Sets, Tapes. It should be noted that the USMARC (or "ALA") set could be changed from the above description, for example, to incorporate the characters in column 12, so the latest edition of the USMARC specifications document should be consulted for the exact specification.

At the time of reaffirmation, the text of ANSI/NISO Z39.47 was revised to a) delete references to six ANSI romanization standards which have been retired, b) incorporate three new definitions, c) clarify the language of the section dealing with character modifiers, and d) update/correct the appendixes. In the absence of published ANSI standards, it is recommended that the publication *ALA-LC Romanization Tables* be consulted for guidance on romanization and transliteration of non-roman scripts.

NISO acknowledges with thanks and appreciation the contributions of Randall K. Barry of the Library of Congress, Network Development and MARC Standards Office, in revising this standard.

Suggestions for improving this standard are welcome. They should be sent to the National Information Standards Organization, P.O. Box 1056, Bethesda, MD 20827, (301) 975-2814.

This standard was processed and approved for submittal to ANSI by the National Information Standards Organization. NISO approval of this standard does not necessarily imply that all Voting Members voted for its approval. At the time it approved this standard, NISO had the following members:

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# American National Standard Extended Latin Alphabet Coded Character Set for Bibliographic Use

# 1. Scope, Purpose, and Application

# 1.1 Scope

This standard specifies 63 graphic characters contained in a 94-byte set that can be invoked in a 7-bit or 8-bit environment. They are intended for use with the 128 graphic and control characters of ASCII, the American National Standard Code for Information Interchange, ANSI X3.4-1986 (R1992), and are therefore fully compatible with the 7-bit coded character set defined in that standard. (The relationship and use of multiple character sets is described in the American National Standard Code Extension Techniques for Use with the 7-Bit Coded Character Set of American National Standard Code for Information Interchange, ANSI X3.41-1990.)

This standard consists of code tables and a legend giving a name and an example for each of the extended Latin graphic characters.

## 1.2 Purpose

The character set in this standard is intended for the interchange of bibliographic information among data processing systems and within message transmission systems. It is suitable for bibliographic citations, including their annotations, in the Latin alphabet.

# 1.3 Application

The character set in this standard is intended to handle recorded information written in the Latin alphabet in the languages listed in Table 1, among others. It is also intended to handle romanized forms of the languages listed in Table 2, among others.

Appendix A contains two tables showing the character modifiers and special characters coded in this standard as they are used for each language. Appendix B contains two tables showing the languages that use each character modifier or special character.

#### 2. Referenced Standards

## 2.1 American National Standards

This standard is intended for use in conjunction with the following American National Standards. When these standards are superseded by a revision approved by the American National Standards Institute, Inc., the revision shall apply:

ANSI X3.4-1986 (R1992), Coded Character Set—7-Bit American National Standard Code for Information Interchange

ANSI X3.41-1990, Code Extension Techniques for Use with the 7-Bit Coded Character Set of ASCII

## 2.2 ISO Standards

This standard is intended for use in conjunction with Data Processing — Procedure for Registration of Escape Sequences, ISO 2375:1985.<sup>1</sup>

Table 1. Languages to which this standard may apply

| Afrikaans   | Esperanto          | Indonesian | Slovak           |
|-------------|--------------------|------------|------------------|
| Albanian    | Estonian           | Italian    | Slovene          |
| Anglo-Saxon | Faroese            | Latvian    | Spanish          |
| Catalan     | Finnish            | Lithuanian | Swedish          |
| Croatian    | French             | Navaho     | Tagalog          |
| Czech       | German             | Norwegian  | Turkish (Modern) |
| Danish      | Hawaiian           | Polish     | Vietnamese       |
| Dutch       | Hungarian          | Portuguese | Wendic           |
| English     | Icelandic (Modern) | Romanian   |                  |
|             |                    |            |                  |

<sup>&</sup>lt;sup>1</sup>Published by the International Organization for Standardization (ISO) and available from the American National Standards Institute (ANSI), 11 W. 42nd St., New York, NY 10036.