| TYPE:                              | REGISTRATION NUMBER: 231 |                          |  |
|------------------------------------|--------------------------|--------------------------|--|
| 94-Character Graphic Character Set | DATE OF                  | REGISTRATION: 2002-09-25 |  |
| ESCAPE SEQUENCE:                   | G0:                      | ESC 02/08 02/01 04/05    |  |
|                                    | G1:                      | ESC 02/09 02/01 04/05    |  |
|                                    | G2:                      | ESC 02/10 02/01 04/05    |  |
|                                    | <b>G</b> 3:              | ESC 02/11 02/01 04/05    |  |
|                                    | C0:                      | -                        |  |
|                                    | C1:                      | -                        |  |

#### NAME:

American National Standard Extended Latin Alphabet Coded Character Set for Bibliographic Use (ANSEL)

#### **DESCRIPTION:**

A set of 63 graphic characters contained in a 94-byte set that can be invoked in a 7-bit or 8-bit environment. Intended for use with ASCII, the American National Standard Code for Information Interchange, ANSI X3.4-1986.

### SPONSOR:

National Committee on Information Technology Standard, Technical Committee L2 [US TAG to ISO/IEC JTC 1/SC 2]

### **ORIGIN:**

ANSI/NISO Z39.47

(available at http://www.niso.org/standards/resources/Z39-47.pdf)

## **OWNER OF ORIGIN:**

National Information Standards Organization (NISO) [US TAG to ISO/TC 46] COPYRIGHT OWNER: National Information Standards Organization (NISO)

## FIELD OF UTILIZATION:

The ANSEL standard is used in bibliographic work. It addresses special characters in languages using the Latin alphabet as well as combining marks (diacritics) required for romanization and transliteration. In ANSEL, non-spacing characters precede the character that they modify.

The MARC 21 Extended Latin character set (published by the Library of Congress) is synchronized with ANSEL.

## NOTE:

MAPPING TABLE (For NSB information only):

A table mapping the characters of this standard to ISO/IEC 10646 equivalents has been published by the Library of Congress following review by the MARBI Committee of the American Library Association

(available at http://lcweb.loc.gov/marc/specifications/speccharlatin.html).

Figure 1. 7-Bit code table

| Bits      | 7→             |    |  | 0              |            |            |            | 1          |    |     |
|-----------|----------------|----|--|----------------|------------|------------|------------|------------|----|-----|
| Bits 6,5→ |                | 00 | 01   | 10             | 11         | 00         | 01         | 10         | 11 |     |
| Hex 1→    |                | 0  | 1  | 2              | 3          | 4          | 5          | 6          | 7  |     |
| 00        | 00             | 0  | <i>"///</i> //                               | <i>''  </i>    |            | 6          | 0          | ***        | 7  | s   |
|           | 01             | 1  |  | ////           | Ł          | ł          | ť          | ***        | ,  | Ĺ   |
|           | 10             | 2  | ///  | ////           | Ø          | Ø          | <b>®</b>   | ***        | •  |     |
|           | 11             | 3  |  |                | Đ          | đ          | ©          | <b>***</b> | ^  |     |
| 01        | 00             | 4  | ///  | ///            | Þ          | þ          | #          | ***        | ~  | ۰   |
|           | 01             | 5  | <i>////</i>                                  |                | Æ          | æ          | i          | <b>***</b> | -  | =   |
|           | 10             | 6  | ///  |                | Œ          | œ          | i          | ***        | Ŭ  | -   |
|           | 11             | 7  | ////   |                | 1          | "          | <b>***</b> | <b>***</b> | •  | ٠   |
| 10        | 00             | 8  | <i>////</i>                                  |                | •          | 1          | <b>***</b> | <b>***</b> |    | ٤   |
|           | 01             | 9  | <i>"////</i>                                 |                | Þ          | £          | <b>***</b> | <b>***</b> | Ť  | v   |
|           | 10             | 10 | <i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i> |                | €          | ð          | ***        | <b>***</b> | ٠  | ^   |
|           | 11             | 11 | <i>"////</i>                                 |                | ±          | <b>***</b> | <b>***</b> | <b>***</b> | _  | Ĭ   |
| 11        | 00             | 12 |  |                | σ          | σ          | <b>***</b> | <b>***</b> | ĺ  | *** |
|           | 01             | 13 | <i>"///</i> //                               | <i>'///</i> // | Ŭ          | ư          | ***        | ***        | ,  | *** |
|           | 10             | 14 |  | <i>////</i>    | ,          | ***        | ***        | ***        | "  | ,   |
|           | 11             | 15 | <i>////</i>                                  | <i>////</i>    | <b>***</b> | <b>***</b> | <b>***</b> | <b>***</b> | ٥  |     |
| Ť         | Ť              | Ť  |  |                | L          |            |            |            |    | رر  |
| 4,3       | 2,1            | 2  | 1  |                |            |            |            |            |    |     |
| Bit       | Bits Hex ANSEL |    |  |                |            |            |            |            |    |     |

Reserved for control characters
Reserved for future standardization
Corners (reserved)

## ANSEL (ANSI/NISO Z39.47) -- List of Character Names

Text that does not occur in the Origin (source document) and has been added for the purposes of registration appears in italics.

A word or phrase in parentheses is part of some of the names of the characters in ANSI/NISO Z39.47. The parenthetical phrase *(combining character)* is to indicate the function of a specific character and is not part of that character's name.

In ANSEL, combining characters ("nonspacing graphic characters" in ANSEL terminology) PRECEDE the character they modify.

| Code | Graphic Character Name            | Note |  |  |
|------|-----------------------------------|------|--|--|
| 2/1  | slash L – uppercase               |      |  |  |
| 2/2  | slash O– uppercase                |      |  |  |
| 2/3  | slash D- uppercase                |      |  |  |
| 2/4  | thorn- uppercase                  |      |  |  |
| 2/5  | ligature AE – uppercase           |      |  |  |
| 2/6  | ligature OE– uppercase            |      |  |  |
| 2/7  | soft sign (miagkii znak)          |      |  |  |
| 2/8  | middle dot                        |      |  |  |
| 2/9  | musical flat                      |      |  |  |
| 2/10 | patent mark                       |      |  |  |
| 2/11 | plus or minus                     |      |  |  |
| 2/12 | hook O - uppercase                |      |  |  |
| 2/13 | hook U - uppercase                |      |  |  |
| 2/14 | alif                              |      |  |  |
| 2/15 | (This position shall not be used) |      |  |  |
| 3/0  | ʻayn                              |      |  |  |
| 3/1  | slash l – lowercase               |      |  |  |
| 3/2  | slash o – lowercase               |      |  |  |
| 3/3  | slash d – lowercase               |      |  |  |
| 3/4  | thorn – lowercase                 |      |  |  |
| 3/5  | ligature ae – lowercase           |      |  |  |
| 3/6  | ligature oe – lowercase           |      |  |  |
| 3/7  | hard sign (tverdyi znak)          |      |  |  |
| 3/8  | dotless i lowercase               |      |  |  |
| 3/9  | British pound                     |      |  |  |
| 3/10 | eth                               |      |  |  |
| 3/11 | (This position shall not be used) |      |  |  |
| 3/12 | hook o - lowercase                |      |  |  |
| 3/13 | hook u - lowercase                |      |  |  |
| 3/14 | (This position shall not be used) |      |  |  |
| 3/15 | (This position shall not be used) |      |  |  |
| 4/0  | degree sign                       |      |  |  |

| Code        | Graphic Character Name                         | Note |
|-------------|--|------|
| 4/1         | script 1                                       |      |
| 4/2         | phono copyright mark                           |      |
| 4/3         | copyright mark                                 |      |
| 4/4         | musical sharp                                  |      |
| 4/5         | inverted question mark                         |      |
| 4/6         | inverted exclamation mark                      |      |
| 4/7 to 5/15 | (These positions shall not be used)            |      |
| 6/0         | low rising tone mark (combining character)     |      |
| 6/1         | grave accent (combining character)             |      |
| 6/2         | acute accent (combining character)             |      |
| 6/3         | circumflex accent (combining character)        |      |
| 6/4         | tilde (combining character)                    |      |
| 6/5         | macron (combining character)                   |      |
| 6/6         | breve (combining character)                    |      |
| 6/7         | dot above (combining character)                |      |
| 6/8         | umlaut (diaeresis) (combining character)       |      |
| 6/9         | hacek (caron) (combining character)            |      |
| 6/10        | circle above (angstrom) (combining character)  |      |
| 6/11        | ligature, left half (combining character)      |      |
| 6/12        | ligature, right half (combining character)     |      |
| 6/13        | high comma, off center (combining character)   |      |
| 6/14        | double acute accent (combining character)      |      |
| 6/15        | candrabindu (combining character)              |      |
| 7/0         | cedilla (combining character)                  |      |
| 7/1         | right hook (combining character)               |      |
| 7/2         | dot below (combining character)                |      |
| 7/3         | double dot below (combining character)         |      |
| 7/4         | circle below (combining character)             |      |
| 7/5         | double underscore (combining character)        |      |
| 7/6         | underscore (combining character)               |      |
| 7/7         | left hook (combining character)                | 1    |
| 7/8         | right cedilla (combining character)            |      |
| 7/9         | half circle below (upadhmaniya) (combining     |      |
|             | character)                                     |      |
| 7/10        | double tilde, left half (combining character)  |      |
| 7/11        | double tilde, right half (combining character) |      |
| 7/12        | (This position shall not be used)              |      |
| 7/13        | (This position shall not be used)              |      |
| 7/14        | high comma, centered (combining character)     |      |

# Notes

1. The name of this character in ANSI/NISO Z39.47-1993 appears as "left hoof", which is a typographical error.