SLOVENSKI STANDARD
SIST EN 1556:2003

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Ļrtno kodiranje ï Izrazje

Bar coding - Terminology

Strichcodierung - Terminologie

Codes a barres - Terminologie

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EUROPEAN STANDARD
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ICS

Descriptors: data processing, character recognition, optical recognition, bar codes, vocabulary

English version

Bar coding - Terminology

Codes à barres - Terminologie

Strichcodierung - Terminologie

This European Standard was approved by CEN on 28 February 1998.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 225 "Bar coding", the secretariat of which is held by NNI.

Organisations contributing to the development of the standard include:

* AIM Europe
* International Article Numbering Association EAN

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 1998, and conflicting national standards shall be withdrawn at the latest by September 1998.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

CEN Technical Committee 225 is responsible for a series of European Standards and Pre-Standards covering both technical and applications aspects of bar code technology. Many of these standards use specialist technical and other terms and this Standard defines a number of terms which may be encountered in more than one standard or in bar coding standards produced by other organisations, with the aim of encouraging consistency of usage and reducing the risk of ambiguity or misunderstanding.

1 Scope

This European Standard defines a number of technical and other terms applicable to bar code technology, which are used in the standards produced by CEN TC225 and may be encountered elsewhere in bar coding standards produced by other organisations. Definitions given are in the context of bar coding and the terms so defined may customarily have a wider meaning than that shown in this Standard. Translations of the terms defined into the two other official languages of CEN are also shown to facilitate cross-reference.

2 Normative references

This European Standard incorporates by dated or undated references provisions from other publications. These normative references are cited at appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

ISO 646 Information technology - ISO 7-bit coded character set for information interchange.
ISO 8859 Information processing - 8-bit single-byte coded graphic character sets

3 Definitions of terms

3.1 ALGORITHM. A set of steps to be taken to effect a desired calculation.
French = ALGORITHME
German = ALGORITHMUS

3.2 ALPHANUMERIC. Alphabetic and numeric including punctuation marks.
French = ALPHANUMÉRIQUE
German = ALPHANUMERISCH

3.3 APERTURE. The opening in an optical device, such as a scanner, photometer, or camera, which determines its field of view. Most apertures are circular, but they may be rectangular or elliptical.
French = OUVERTURE
German = BLENDE

3.4 APPLICATION STANDARD. Specification defining the method by which and conditions under which bar code technology may be applied to a particular purpose, prescribing, for example, data formats, optical requirements and symbology-related parameters as subsets of the range defined by relevant technical standards.
French = NORME D'APPLICATION
German = ANWENDUNGSSTANDARD

3.5 ASCII. American Standard Code for Information Interchange: a computer code, as described in ISO 646, consisting of 128 alphanumeric and control characters, each encoded with 7 bits (8 including parity check), used for the exchange of information between computerised systems.
French = ASCII
German = ASCII

3.6 AUTODISCRIMINATION. The ability of a bar code reader to distinguish automatically between two or more symbologies.
French = AUTODISCRIMINATION
German = AUTODISKRIMINATION

3.7 AUXILIARY CHARACTER. A non-data character - e.g. start character, stop character, centre pattern, delineator pattern, latch character, mode indicator, shift character, code subset change characters, and function characters. See Overhead.
French = CARACTÈRE AUXILIAIRE
German = HILFSZEICHEN

3.8 BACKGROUND. The light area between and surrounding the dark elements of a printed symbol. The background can be the substrate on which the symbol is printed or an over-printing of a suitable light colour.
French = ARRIÈRE-PLAN
German = HINTERGRUND

3.9 BAR. Any of the dark lines in a printed bar code symbol.
French = BARRE
German = STRICH

3.10 BAR CODE. An array of parallel rectangular bars and spaces arranged according to the encodation rules of a particular symbol specification in order to represent data in machine readable form.
French = CODE À BARRES
German = STRICHCODE

3.11 BAR CODE CHARACTER. See Symbol Character.
French = CARACTÈRE DE CODE À BARRES
German = STRICHCODEZEICHEN

3.12 BAR CODE DENSITY (SYMBOL DENSITY). The number of characters that can be represented in a bar code symbol per unit of measure, usually expressed as characters per inch (cpi) or per centimetre for linear bar codes and per square inch or per square centimetre for multi-row symbologies. The width of the narrowest bar or space, the wide to narrow ratio, the number of bars and spaces per character and the width of the intercharacter gap, if any, are the controlling factors.
French = DENSITÉ DU CODE À BARRES
German = STRICHCODEDICHTE

3.13 BAR CODE MASTER. The original film or other image of a bar code symbol, produced to close tolerances and intended for reproduction by conventional printing processes (e.g. for incorporation in a printed packaging design).
French = CODE À BARRES DE BASE
German = STRICHCODE-MASTER

3.14 BAR CODE READER. A device used to capture the data encoded in a bar code symbol. It consists of two parts: a) the scanner, an input device which sends signals proportional to the reflectivity of each successive element of the symbol to the decoder, and b) the decoder, which examines the signals from the scanner and translates them into recognisable or computer-compatible data. The decoder itself is sometimes erroneously called a reader.
French = LECTEUR DE CODE À BARRES
German = STRICHCODE-LESEGERÄT

3.15 BAR CODE SYMBOL. The combination of symbol characters and features required by a particular symbology, including quiet zones, start and stop characters, data characters, check characters and other auxiliary patterns, which together form a complete scannable entity.
French = SYMBOLE DE CODE À BARRES
German = STRICHCODESYMBOL

3.16 BAR HEIGHT. The dimension of the individual bars in a linear bar code symbol or in a row of a multi-row bar code symbol, measured perpendicular to the scanning direction. See also Y DIMENSION.
French = HAUTEUR DE BARRE
German = STRICHHÖHE

3.17 BAR WIDTH. The transverse dimension of an individual bar in a bar code symbol, measured parallel to the scanning direction. The number of possible width variations within a particular printed symbol depends on the symbology used.
French = LARGEUR DE BARRE
German = STRICHBREITE

3.18 BAR WIDTH GAIN/LOSS. See Print Gain/Loss.
French = GAIN/PERTE DE LA LARGEUR DE BARRE
German = STRICHBREITENZUWACHS/-VERLUST

3.19 BAR WIDTH REDUCTION/INCREASE. The extent by which the width of the bars on the bar code master is reduced/increased in order to correct for expected print gain/loss.
French = RÉDUCTION/AUGMENTATION DE LA LARGEUR DE BARRE
German = STRICHBREITENVERRINGERUNG/-VERGRÖßERUNG

3.20 BEARER BAR. A bar abutting the tops and bottoms of the bars in a bar code symbol, or a frame surrounding the entire symbol, intended to equalise the pressure exerted by the printing plate over the entire surface of the symbol, and/or to prevent a short scan by the bar code reader.
French = BARRE PORTEUSE
German = TRÄGERBALKEN/TRÄGERSTRICH

3.21 BI-DIRECTIONAL. In two directions - viz. backwards and forwards. Denoting that a bar code symbol can be read successfully either backwards or forwards. Denoting a scanner that can operate successfully either backward or forwards.
French = BI-DIRECTIONNEL
German = BI-DIREKTIONAL

3.22 BINARY. Denoting a numbering system to base 2 in which numbers are expressed as combinations of the digits 0 and 1, with positional weighting based on powers of 2. In computing these can be represented electrically by 'off' and 'on' respectively, or in bar codes by narrow and wide elements or by the absence or presence of a bar module.
French = BINAIRE
German = BINÄR

3.23 BINARY CODED DECIMAL (BCD). A method of representing decimal numbers in binary code as groups of four bits, with weighting values 8, 4, 2, 1 reading from left to right, each group representing one decimal digit, for example 0010 0011 for 23.
French = DÉCIMAL CODÉ BINAIRE
German = BINÄR VERSCHLÜSSELTE DEZIMALZIFFERN (BCD)

3.24 BINARY SYMBOLOGY. See Two-Width Symbology.
French = SYSTÈME DE SYMBOLISATION BINAIRE
German = BINÄRE SYMBOLOGIE

3.25 BIT. Abbreviation for binary digit. 1. A single element (0 or 1) in a binary number. 2. A unit of information capacity in a binary storage device.
French = BIT
German = BIT, BINÄRZEICHEN

3.26 CCD (CHARGE-COUPLED DEVICE). An electronic light-sensitive component used in a linear or two-dimensional array as the light-collecting element in certain types of bar code reader.
French = CCD - DISPOSITIF À COUPLAGE DE CHARGE
German = CCD - CHARGE-COUPLED DEVICE

3.27 CHARACTER. See Character Set, Data Character, Symbol Character, Human Readable Character.
French = CARACTÈRE
German = ZEICHEN

3.28 CHARACTER SET. The total range of letters, numbers, and symbols that can be encoded in a particular symbology. See Code Page, Code Set.
French = JEU DE CARACTÈRES
German = ZEICHENSATZ

3.29 CHECK DIGIT/CHARACTER. A digit or character calculated from other characters in a code by means of a defined algorithm and used to check that the code is correctly composed. See Symbol Check Character, Data Check Character/Digit.
French = CARACTÈRE DE CONTRÔLE/CLÉ DE CONTRÔLE
German = PRÜFZIFFER/PRÜFZEICHEN

3.30 CLEAR AREA. See Quiet Zone.
French = ZONE DE REPOS
German = HELLZONE

3.31 CLOSED APPLICATION ENVIRONMENT (SYSTEM). An application which is intended for use by a closed group of users, typically within a single organisation or subject to a specific agreement. Compare Open Application Environment.
French = SYSTEME FERMÉ
German = GESCHLOSSENE ANWENDUNGSUMGEBUNG

3.32 CLOSED SYSTEM. See Closed Application Environment.
French = SYSTÈME FERMÉ
German = GESCHLOSSENES SYSTEM

3.33 CODE PAGE. A table showing the character allocated to each byte value in a coded character set.
French = PAGE DE CODE
German = CODIERTABELLE

3.34 CODE SET. A subset of the character set of a particular symbology. See Character Set.
French = JEU DE CODE
German = SPECIFISCHER ZEICHENSATZ

3.35 CODED CHARACTER SET. A set of unambiguous rules establishing a character set and the relationship between the characters of the set and their byte values.
French = JEU DE CARACTÈRES CODÉS
German = ZEICHENSATZREFERENZ

3.36 CODEWORD. A symbol character value. An intermediate level of coding between source data and the graphical encodation in a symbol.
French = MOT DE CODE
German = CODEWORT

3.37 COLUMN. The horizontal symbol character position in a row of a multi-row symbology.
French = COLONNE
German = SPALTE

3.38 CONCATENATION. The linking or chaining together (1) of separate items of data in a bar code symbol, or (2) of the data contained in two or more separate bar code symbols (also referred to as "message append" and "structured append").
French = CONCATÉNATION
German = VERKETTUNG

3.39 CONTINUOUS CODE. A symbology in which there is no intercharacter gap, i.e. the final element of one symbol character abuts the first element of the next symbol character and all the elements carry data contiguously. Compare Discrete Code.
French = CODE À BARRES CONTINU
German = KONTINUIERLICHER CODE

3.40 CONVENTIONAL PRINTING PROCESS. One of the printing processes typically using a printing plate (or cylinder) and wet ink to produce multiple impressions of an image on a substrate. Includes lithography, letterpress, flexography, photogravure, screen process, hot foil stamping. Compare On-Demand Printing.
French = PROCÉDÉ D'IMPRESSION CONVENTIONNEL
German = ÜBLICHES DRUCKVERFAHREN

3.41 CORNER MARKS. Marks which indicate the four corners of a bar code symbol including the light margins on a bar code master. Corner marks are not normally printed.
French = MARQUES DE COINS
German = ECKPUNKTE

3.42 CPI (Characters per inch). Used as a measure of bar code density.
French = CPI (Caractères par pouce)
German = CPI (Zeichen pro Zoll)

3.43 DATA CHARACTER. A single numeric digit, alphabetic character or punctuation mark, or control character, which represents information. Compare Symbol Character.
French = CARACTÈRE DE DONNÉES
German = DATENZEICHEN

3.44 DATA CHECK CHARACTER/DIGIT. A digit or character calculated from data and appended as part of the data string to ensure that the data is correctly composed and transmitted. Compare Symbol Check Character.
French = CARACTÈRE DE CONTRÔLE DE DONNÉES
German = DATENPRÜFZEICHEN/-ZIFFER

3.45 DATA CODEWORD. A codeword which encodes data according to one of the compaction schemes of a symbology.
French = MOT CODE DE DONNÉES
German = VERDICHTETES CODEWORT

3.46 DATA COMPACTION (or DATA COMPACTION SCHEME). A mechanism or algorithm to process the original data so that it is represented efficiently in as few codewords as possible in a symbology.
French = COMPRESSION DES DONNÉES (ou SCHEMA DE COMPRESSION DES DONNÉES)
German = DATENVERDICHTUNG

3.47 DATA REGION. That part of a symbol used to encode data codewords as opposed to other symbol overhead.
French = ZONE DE DONNÉES
German = DATENFELD

3.48 DATA SEPARATOR CHARACTER. An auxiliary character used to determine the end of one and the beginning of the next of two items of data which have been concatenated.
French = CARACTÈRE SÉPARATEUR DE DONNÉES
German = DATENTRENNZEICHEN

3.49 DECODE ALGORITHM. The set of rules used, in a bar code or matrix symbology, to convert the element pattern of a symbol to data characters.
French = ALGORITHME DE DÉCODAGE
German = DECODIERALGORITHMUS

3.50 DECODER. An electronic assembly which translates the proportional electrical signals from a scanner into recognisable or computer-compatible data.
French = DÉCODEUR
German = DECODER

3.51 DENSITOMETER. An instrument that measures the degree to which light is transmitted through or reflected from a material. A calibrated photometer compares the transmitted or reflective light with the incident light, and the result may be displayed as percentage reflectance or density.
French = DENSITOMÈTRE
German = DENSITOMETER

3.52 DENSITY (OPTICAL). Measure of the relationship between transmitted or reflected light and the incident light, expressed as the logarithms of their ratio:
Optical density = Log_{10} (I/T),
where I = Incident light
T = Transmitted or reflected light.
French = DENSITÉ (OPTIQUE)
German = OPTISCHE DICHTE

3.53 DEPTH OF FIELD. The range of distances over which a scanner can reliably read a symbol of given characteristics. Equal to the range of the scanner minus its optical throw. See Optical Throw, Range, Reading Distance.
French = PROFONDEUR DE CHAMP
German = TIEFENSCHÄRFE

3.54 DIFFUSE REFLECTION. Reflection of light in all directions. Non-glossy surfaces reflect light in this way, whereas glossy surfaces produce specular reflection.
French = RÉFLEXION DIFFUSE
German = DIFFUSE REFLEXION (STREULICHT)

3.55 DIGITAL. Represented in a binary form rather than a continuously varying analogue form. In the context of integrated artwork, produced by a number of discrete dots rather than a continuous image.
French = DIGITAL
German = DIGITAL

3.56 DISCRETE CODE. A symbology in which the spaces between symbol characters (intercharacter gaps) do not contain information as each character begins and ends with a bar. Compare Continuous Code.
French = CODE À BARRES DISCONTINUE
German = DISKRETER CODE

3.57 DOT CODE. A subset of matrix symbologies in which individual modules are surrounded by clear space which has no information content.
French = CODE À POINTS
German = DOT CODE

3.58 EAN. Abbreviation for EAN International. Also used to refer to the bar code symbology used for marking of consumer products in accordance with this body's specifications.
French = EAN
German = EAN

3.59 EFFECTIVE APERTURE. The apparent field of view of a scanner or similar device determined by the smaller of the spot size and the physical aperture of the scanner for reception of reflected light.
French = OUVERTURE EFFECTIVE
German = BLENDENÖFFNUNG

3.60 ELEMENT. A single bar or space in a bar code symbol. The width of individual elements may be expressed in modules, or in multiples of the X dimension.
French = ÉLÉMENT
German = ELEMENT

3.61 ENCODE. Put into the form of a code.
French = ENCODER
German = CODIEREN

3.62 ERASURE. A type of error represented by a physically missing character, or a symbol character which has failed to be decoded, as opposed to a substitution error or misdecode.
French = EFFACEMENT
German = AUSLÖSCHUNG

3.63 ERROR CORRECTION. A mathematical procedure which allows the detection and rectification of errors to take place.
French = CORRECTION D'ERREUR
German = FEHLERKORREKTUR