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Information technology — Automatic identification and data capture techniques — EAN/UPC bar code symbology specification

Technologies de l'information — Techniques automatiques d'identification et de capture des donnnées — Spécification de symbologie de code à barre EAN/UPC

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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. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

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.

ISO/IEC 15420 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 31, *Automatic identification and data capture techniques*.

This second edition cancels and replaces the first edition (ISO/IEC 15420:2000), which has been technically revised.

Introduction

The technology of bar coding is based on the recognition of patterns encoded in bars and spaces of defined dimensions. There are numerous methods of encoding information in bar code form, known as symbologies. EAN/UPC is one such symbology. The rules defining the translation of characters into bar and space patterns, and other essential features of each symbology, are known as the symbology specification.

This International Standard serves as a normative reference in the “GS1 General Specifications”. The administration of the numbering system by GS1 ensures that identification codes assigned to particular items are unique world-wide and are defined in a consistent way. The major benefit for the users of the GS1 system is the availability of uniquely defined identification codes for use in their trading transactions. Annex C gives an overview of the GS1 system.

NOTE GS1 is the worldwide association encompassing the organizations formerly known as EAN International and Uniform Code Council (UCC).

Manufacturers of bar code equipment and users of bar code technology require publicly available standard symbology specifications to which they can refer when developing equipment and software.

Information technology — Automatic identification and data capture techniques — EAN/UPC bar code symbology specification

1 Scope

This International Standard specifies the requirements for the bar code symbology known as EAN/UPC. It specifies EAN/UPC symbology characteristics, data character encodation, dimensions, tolerances, decoding algorithms and parameters to be defined by applications. It specifies the Symbology Identifier prefix strings for EAN/UPC symbols.

Data content and the rules governing the use of this symbology are outside the scope of this International Standard; they are defined in the GS1 General Specifications (see bibliography).

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 646:1991, *Information technology — ISO 7-bit coded character set for information interchange*

ISO/IEC 15416, *Information technology — Automatic identification and data capture techniques — Bar code print quality test specification — Linear symbols*

ISO/IEC 19762-1, *Information technology — Automatic identification and data capture (AIDC) techniques — Harmonized vocabulary — Part 1: General terms relating to AIDC*

ISO/IEC 19762-2, *Information technology — Automatic identification and data capture (AIDC) techniques — Harmonized vocabulary — Part 2: Optically readable media (ORM)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 19762-1, ISO/IEC 19762-2 and the following apply.

3.1
add-on symbol
symbol used to encode information supplementary to that in the main symbol which it accompanies

3.2
auxiliary pattern
pattern of bars/spaces representing non-data components of the symbol

EXAMPLE guard patterns and inter-character delineators