Information technology - Automatic identification and data capture techniques - Bar code master test specifications (ISO/IEC 15421:2010)

EESTI STANDARDIMIS- JA AKREDITEERIMISKESKUS
ESTONIAN CENTRE FOR STANDARDISATION AND ACCREDITATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO/IEC 15421:2024 sisaldab Euroopa standardi EN ISO/IEC 15421:2024 ingliskeelset teksti.	This Estonian standard EVS-EN ISO/IEC 15421:2024 consists of the English text of the European standard EN ISO/IEC 15421:2024.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 20.03.2024.	Date of Availability of the European standard is 20.03.2024.
Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 35.040.50

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO/IEC 15421

March 2024

ICS 35.040.50

Supersedes EN ISO/IEC 15421:2001

English Version

Information technology - Automatic identification and data capture techniques - Bar code master test specifications (ISO/IEC 15421:2010)

Technologies de l'information - Techniques automatiques d'identification et de capture des données - Spécifications pour essai des codes à barres de base (ISO/IEC 15421:2010)

Informationstechnik - Verfahren der automatischen Identifikation und Datenerfassung - Testspezifikationen für Strichcode-Master (ISO/IEC 15421:2010)

This European Standard was approved by CEN on 16 March 2024.

This European Standard was corrected and reissued by the CEN-CENELEC Management Centre on 27 March 2024.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN ISO/IEC 15421:2024 E

European foreword

The text of ISO/IEC 15421:2010 has been prepared by Technical Committee ISO/IEC JTC 1 "Automatic identification and data capture techniques" of the International Organization for Standardization (ISO) and has been taken over as EN ISO/IEC 15421:2024 by Technical Committee CEN/TC 225 "AIDC technologies" the secretariat of which is held by TSE.

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 2024, and conflicting national standards shall be withdrawn at the latest by September 2024.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO/IEC 15421:2001.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Endorsement notice

The text of ISO/IEC 15421:2010 has been approved by CEN as EN ISO/IEC 15421:2024 without any modification.

Contents

Page

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 15421 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 15421:2000), which has been technically revised.

Introduction

The technology of bar coding is based on the recognition of patterns encoded in bars and spaces of specified dimensions. A wide variety of methods exists by which these bar and space patterns can be reproduced as a physical image. Conventional printing processes such as offset lithography, photogravure, letterpress, screen process, hot foil stamping and flexography require one or more intermediate image carriers, for example artwork, photographic film, printing plates or cylinders, screens or dies.

The term bar code master refers to the first physical image of the complete bar code symbol from which the other image carriers can be produced. Some processes directly create an image carrier without generating a master that would be covered by this International Standard. In order to make allowances for variability of the production processes, and to ensure the correct encoding of the data to be represented, certain procedures need to be performed during the preparation of the bar code master.

This International Standard does not define the procedures but states the requirements for a bar code master.

Information technology — Automatic identification and data capture techniques — Bar code master test specifications

1 Scope

This International Standard specifies the requirements and test methods for physical and related attributes of a bar code master. It covers all forms of bar code master, irrespective of the mode of origination of the initial image, intended for reproduction by conventional printing processes. This International Standard does not cover processes in which there is no master, such as computer to plate (CTP).

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 5-3, *Photography and graphic technology — Density measurements — Part 3: Spectral conditions*

ISO 18911, *Imaging materials — Processed safety photographic films — Storage practices*

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
achieved bar width difference
average difference in width between specified and actual dimensions, for all bars within the symbol

3.2
bar edge
junction between a bar and space in a bar code symbol

3.3
bar edge conformance
accuracy with which a bar edge or part of a bar edge is located, relative to its specified location

3.4
bar edge contour
line joining all bar/space transitions at all points along the height of a bar