## INTERNATIONAL STANDARD

### 150/IEC 15424

Second edition 2008-07-15

# Information technology — Automatic identification and data capture techniques — Data Carrier Identifiers (including Symbology Identifiers)

Technologies de l'information — Techniques automatiques d'identification et de capture des données — Identifiants de porteuses de données (y compris les identifiants de symbologie)

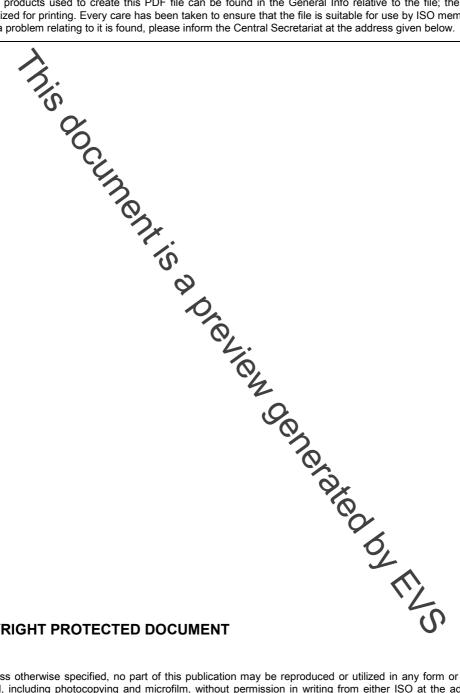


### PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below





### **COPYRIGHT PROTECTED DOCUMENT**

### © ISO/IEC 2008

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office Case postale 56 • CH-1211 Geneva 20 Tel. + 41 22 749 01 11 Fax + 41 22 749 09 47 E-mail copyright@iso.org Web www.iso.org

Published in Switzerland

### **Contents**

Page

Forewo	ord	iv
Introductionv		
1	Scope	
2	Normative references	
3	Terms, deficitions, and abbreviated terms	1
3.1	Terms and definitions	
3.2	Abbreviated terms	2
4	Requirements Applicability Structure Code characters Modifier characters Code 39 Telepen	2
4.1	Applicability	2
4.2	Structure	2
4.3	Code characters	3
4.4	Modifier characters	3
4.4.1	Code 39	4
4.4.2	Telepen Code 128 Channel Code Code One Data Matrix	4
4.4.3	Code 128	4
4.4.4	Channel Code	5
4.4.5	Code One	5
4.4.6	Data Matrix	5
4.4.7	EAN/UPCRSS (Reduced Space Symbology) and ZAN.UCC Composite	6
4.4.8	RSS (Reduced Space Symbology) and PAN.UCC Composite	6
4.4.9	Codabar	6
4.4.10	Code 93 and 931	7
4.4.11	Under 11	8
4.4.12	Interleaved 2 of 5	გ ი
4.4.13	DDE447 and MicroDDE447	o
4.4.14	Mei	შ ი
4.4.10	Interleaved 2 of 5	ອ ດ
4.4.10	Anker Code  Codablock  OCR (Optical Character Recognition)  Plessey Code  PosiCode  QR Code  Straight 2 of 5 (with two bar start/stop codes)	5 0
4.4.17 1 1 1 1 1	OCP (Ontical Character Percentition)	9 0
1.4.10 1.1.10	Placear Coda	9 a
4.4.19	PosiCodo	9 10
4.4.21	OR Code	10
4422	Straight 2 of 5 (with two har start/stop codes)	10
4 4 23	Straight 2 of 5 (with three bar start/stop codes)	10
4.4.24	SuperCode	. 11
4.4.25	Code 49	. 11
4.4.26	MaxiCode	. 11
4.4.27	Code 49	. 11
	Non-bar code	
4.4.29	Aztec Code	. 12
Annex	A (normative) Maintenance	. 13
	B (normative) Symbology emulation	
	C (informative) Reference documents	16

### **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 jaison 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 shall not be held responsible for dentifying any or all such patent rights.

ISO/IEC 15424 was prepared by Joint Technical Committee ISO/IEC JTC1, *Information technology*, Subcommittee SC 31, *Automatic identification and ata capture techniques*.

This second edition cancels and replaces the first edition (ISO/IEC 15424:2000), which has been technically revised.

### Introduction

The need exists to identify the data carrier a reader detects in autodiscrimination environments. The Symbology Identifier concept provides a standardized way for a device receiving data from a reader to differentiate between the data carriers. This International Standard deals mostly with bar code symbologies; the terms Symbology Identifier, symbology, and bar code are therefore used throughout this International Standard although they are intended to apply to other data carriers as well.

This identification is achieved by the addition of an optional feature to readers enabling the reader to prefix a standard string of characters to data messages. This preamble contains information about the decoded symbol (or other data carrier) and any processing the reader has done. The information is not encoded or otherwise explicitly or implicitly represented in the symbol, except that the presence of some optional features may be detected by the reading equipment, whereas others require the reader to be expressly configured to Implement them.

This International Standard is interned to be read in conjunction with the relevant symbology specifications.

Order of the conjunction with the relevant symbology specifications. implement them.

Inis document is a preview denetated by EUS

# Information technology — Automatic identification and data capture techniques — Data Carrier Identifiers (including Symbology Identifiers)

### 1 Scope

This International Standard applies to automatic identification device communication conventions and standardizes the reporting ondata carriers from bar code readers and other automatic identification equipment. It specifies a preamble message generated by the reader and interpretable by the receiving system, which indicates the bar code symbology or other origin of transmitted data, together with details of certain specified optional processing features associated with the data message.

### 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 1-bit coded character set for information interchange

ISO/IEC 19762 (all parts), Information technology Automatic identification and data capture (AIDC) techniques — Harmonized vocabulary

AIM Inc. International Technical Specification: Extended Connection Interpretations — Part 1: Identification Schemes and Protocols

AIM Inc. International Technical Specification: Extended Channel Interpretations — Part 2: Registration Procedure for Coded Character Sets and Other Data Formats

AIM Inc. International Technical Specification: Extended Channel Interpretations — Character Set Register

### 3 Terms, definitions and abbreviated terms

### 3.1 Terms and definitions

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

### 3.1.1

### code character

second character in the symbology identifier string, which usually indicates to the host the bar code symbology of the symbol which has been read

### 3.1.2

### flag character

first character in the symbology identifier string, which indicates to the host that it and the characters following are the symbology identifier characters