INTERNATIONAL STANDARD

ISO 20302

Second edition
2014-03-15

Health informatics — Health cards — Numbering system and registration procedure for issuer identifiers

Informatique de santé — Cartes de santé — Système de numérotation et mode opératoire d'enregistrement pour les identificateurs d'émetteur

Reference number
ISO 20302:2014(E)

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

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

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 identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received. www.iso.org/patents

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 215, *Health informatics.*

This second edition cancels and replaces the first edition (ISO 20302:2006), which has been technically revised.

Introduction

This International Standard describes a numbering system and registration procedure for issue identifiers of machine-readable cards used in the field of healthcare.

The purpose of using machine-readable cards in the field of healthcare is to improve the quality of the health service and increase the efficient use of healthcare resources in the field. The primary consideration in creating this International Standard has been to improve patient service and patient safety, as well as improve the practical use of healthcare data cards in clinical fields.

The main policy of this International Standard is as follows.

a) ISO/TC215 has agreed to exempt the following items from standardization efforts.

   — standardizing the clinical practice of medicine;

   — define a standardized healthcare delivery service structure.

In past years healthcare data cards have been used to exchange healthcare data by placing necessary and appropriate information on the surface of the cards in order to implement the health service of each country. However, as people now move more frequently across borders, healthcare data cards issued in one country or area are increasingly being used in another and, with this consideration in mind, this International Standard has been designed to apply to healthcare data cards that will be used internationally.

b) This International Standard is applicable to healthcare data cards used for healthcare services provided by the card issuer. Not only ISO/TC 215, but also ISO/IEC JTC1/SC17 should discuss the standardization of the characteristics and operation of other cards, which are not covered by this International Standard.

c) This International Standard is designed to accept relevant technologies and recording techniques for healthcare data cards.

The data elements and data structures in healthcare data cards are standardized in ISO 21549.

Health informatics — Health cards — Numbering system and registration procedure for issuer identifiers

1 Scope

This International Standard is designed to confirm, via a numbering system and registration procedure, the identities of both the healthcare application provider and the health card holder in order that information may be exchanged by using cards issued for healthcare services.

This International Standard focuses on the machine-readable cards of ID-1 type defined in ISO/IEC 7810 that are issued for healthcare services provided in a service area that crosses the national borders of two or more countries/areas.

This International Standard applies to healthcare data cards where the issuer and the application provider are the same party.

This International Standard applies directly, or refers, to existing ISO standards for physical characteristics and recording techniques. Security issues follow the requirements of each healthcare data card system.

In addition, this International Standard regulates the visual information written on the healthcare data card.

2 Normative references

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

ISO 3166-1, *Codes for the representation of names of countries and their subdivisions — Part 1: Country codes*

ISO/IEC 7810, *Identification cards — Physical characteristics*

ISO/IEC 7812-1, *Identification cards — Identification of issuers — Part 1: Numbering system*

ISO/IEC 7812-2, *Identification cards — Identification of issuers — Part 2: Application and registration procedures*

ISO/IEC 7816-4, *Identification cards — Integrated circuit cards — Part 4: Organization, security and commands for interchange*

ISO/IEC 7816-5, *Identification cards — Integrated circuit cards — Part 5: Registration of application providers*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
card issuer
entity that records the information to activate the card and registers and distributes it to the healthcard holder

EXAMPLE A hospital could be a card issuer of cards for handling appointments for medical treatment or for accessing medical records. A health funding agency could be a card issuer of cards for health funding.

3.2
healthcare application provider
entity that provides healthcare services to the healthcard holder and, in doing so, makes use of the card and records the healthcare application information on to the card

EXAMPLE A hospital could be a healthcare application provider by handling appointments for medical treatment or by providing access control to medical records. A health funding agency could be a healthcare application provider by issuing cards for health funding. A health funding agency could also be a healthcare application provider by certifying the health funding status of the healthcard holder.

Note 1 to entry: If the card contains an application for medical appointments, while a hospital could be an application provider as it provides appointment services to the patients, it could also be a user of the card if the card contains an application for health funding services, as the hospital may get reimbursed from the health funding agency.

3.3
healthcare data card
machine-readable card, conformant to ISO/IEC 7810 intended for use within the healthcare domain

[SOURCE: ISO 21549-2:2004, definition 3.9]

4 Abbreviations

IIN	Issuer Identification Number
AID	Application identifier
RID	Registered application provider identifier
BCD	Binary Coded Decimal
MII	Major industry identifier for health care
OID	Object identifier

5 Identifiers of the Healthcare Application Providers

5.1 General

The identifier of the healthcare application provider may be determined from one of the following numbering systems.

a) IIN numbering system as defined in ISO/IEC 7812-1, if the card issuer is the healthcare application provider;

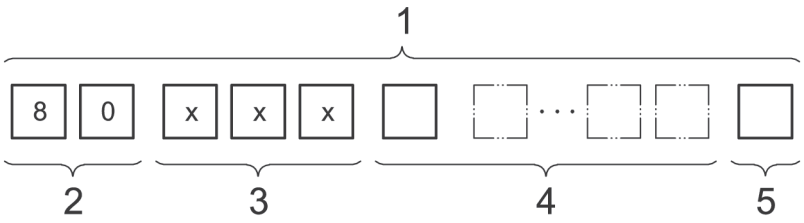
b) RID numbering system as defined ISO/IEC 7816-4 as part of an application identifier AID, if the healthcare data card is an IC card;

c) identification information such as number, sign, character strings, etc. according to the standard defined by card issuers, healthcare application providers, etc. and understood in the service area across national borders.

5.2 Structure of IIN

IIN is the number that identifies the major industry and the card issuer. The first two digits in IIN begin with “80” in the healthcare sector, followed by the three-digit country code in accordance with ISO 3166-1. The following variable length digits up to 12 identify the card issuer. Figure 1 shows the composition of the IIN on healthcare data cards (see ISO/IEC 7812-1).

Information on the registration procedure of IIN shall refer to ISO/IEC 7812-2.



Key

1 IIN
2 MII – 2 digits
3 Country code– 3 digits
4 Issuer identifier – Variable length (max. 12 digits)
5 check digit

Figure 1 — Structure of the IIN

5.3 Structures of RID

RID as part of an AID is used to uniquely identify the application provider of a specific application in an IC card (see ISO/IEC 7816-4).

Information on the registration procedure of RID shall refer to ISO/IEC 7816-5.

Annex A
(normative)

Structure of RID

RID consists of the following 5 bytes fields.

— The first four bits, bits 8 to 5 of the first byte, indicate the registration category. “0” to “9” are reserved for backward compatibility with ISO/IEC 7812-1. “A”, “D” and “E” indicate the international registration, the national registration and identification of a standard, respectively, by an object identifier in accordance with ISO/IEC 8825-1.

— If the registration category is ‘A’, the subsequent fields are as follows:

  — registered application provider number, 36bits as 9 BCD digits;

— If the registration category is ‘D’, the subsequent fields are as follows:

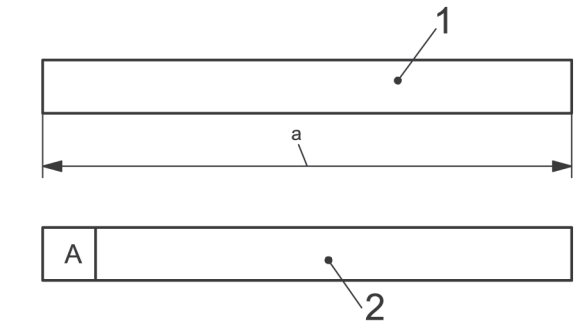
  — country code of the national registration authority, 12 bits as 3 BCD digits coded in accordance with ISO 3166-1, numeric part only;

  — field(s) specified by the national authority: 24 bits, BCD coding recommended;

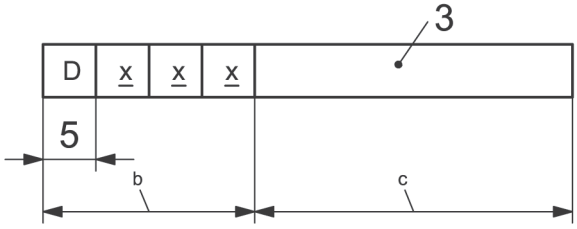
— If the registration category is ‘E’, the successive fields are as follows:

  — range indicator ‘8’ followed by an object identifier.

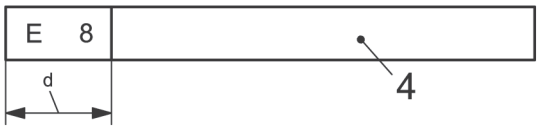
NOTE The category ‘E’ is used for applications defined by a standards committee. Structures of RID are shown in Figure A.1.



International registration



National registration xxx = country code according to ISO 3166-1



RID related to the standard identified by its OID

Key

1	registered application provider identifier (RID)	a	5 bytes
2	registered application provider number (9 BCD digits)	b	2 bytes
3	specified by the national authority (24 bits)	c	3 bytes
4	object identifier	d	1 byte
5	registration category		

Figure A.1 — Structures of RID

Bibliography

[1] ISO/IEC 7811-1, *Identification cards — Recording technique — Part 1: Embossing*

[2] ISO/IEC 7811-2, *Identification cards — Recording technique — Part 2: Magnetic stripe — Low coercivity*

[3] ISO/IEC 7811-6, *Identification cards — Recording technique — Part 6: Magnetic stripe — High coercivity*

[4] ISO/IEC 7811-7, *Identification cards — Recording technique — Part 7: Magnetic stripe — High coercivity, high density*

[5] ISO/IEC 7816-1, *Identification cards — Integrated circuit cards — Part 1: Cards with contacts — Physical characteristics*

[6] ISO/IEC 7816-2, *Identification cards — Integrated circuit cards — Part 2: Cards with contacts — Dimensions and location of the contacts*

[7] ISO/IEC 7816-3, *Identification cards — Integrated circuit cards — Part 3: Cards with contacts — Electrical interface and transmission protocols*

[8] ISO/IEC 7816-6, *Identification cards — Integrated circuit cards — Part 6: Interindustry data elements for interchange*

[9] ISO/IEC 7816-7, *Identification cards — Integrated circuit(s) cards with contacts — Part 7: Interindustry commands for Structured Card Query Language (SCQL)*

[10] ISO/IEC 7816-8, *Identification cards — Integrated circuit cards — Part 8: Commands for security operations*

[11] ISO/IEC 7816-9, *Identification cards — Integrated circuit cards — Part 9: Commands for card management*

[12] ISO/IEC 7816-10, *Identification cards — Integrated circuit(s) cards with contacts — Part 10: Electronic signals and answer to reset for synchronous cards*

[13] ISO/IEC 7816-11, *Identification cards — Integrated circuit cards — Part 11: Personal verification through biometric methods*

[14] ISO/IEC 7816-12, *Identification cards - Integrated circuit cards — Part 12: Cards with contacts — USB electrical interface and operating procedures*

[15] ISO/IEC 7816-13, *Identification cards — Integrated circuit cards — Part 13: Commands for application management in a multi-application environment*

[16] ISO/IEC 7816-15, *Identification cards — Integrated circuit cards — Part 15: Cryptographic information application*

[17] ISO/IEC 8825-1, *Information technology — ASN.1 encoding rules: Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER) and Distinguished Encoding Rules (DER) — Part 1*

[18] ISO/IEC 8825-2, *Information technology — ASN.1 encoding rules: Specification of Packed Encoding Rules (PER) — Part 2*

[19] ISO/IEC 8825-3, *Information technology — ASN.1 encoding rules: Specification of Encoding Control Notation (ECN) — Part 3*

[20] ISO/IEC 8825-4, *Information technology — ASN.1 encoding rules: XML Encoding Rules (XER) — Part 4*

[21] ISO 20301, *Health informatics — Health cards — General characteristics*

[22] ISO 21549-1, *Health informatics — Patient healthcard data — Part 1: General structure*

[23] ISO 21549-2:2004, *Health informatics — Patient healthcard data — Part 2: Common objects*

[24] ISO 21549-3, *Health informatics — Patient healthcard data — Part 3: Limited clinical data*

[25] ISO 21549-4, *Health informatics — Patient healthcard data — Part 4: Extended clinical data*

[26] ISO 21549-5, *Health informatics — Patient healthcard data — Part 5: Identification data*

[27] ISO 21549-6, *Health informatics — Patient healthcard data — Part 6: Administrative data*

[28] ISO 21549-7, *Health informatics — Patient healthcard data — Part 7: Medication data*

[29] ISO 21549-8, *Health informatics — Patient healthcard data — Part 8: Links*

ICS 35.240.80

Price based on 7 pages