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Health informatics — Health cards — General characteristics

Informatique de santé — Cartes de santé — Caractéristiques générales



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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.

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

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member 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 identifying any or all such patent rights.

ISO 20301 was prepared by Technical Committee ISO/TC 215, *Health informatics*.

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Introduction

This International Standard describes general characteristics 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 health service and 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.

- 1) ISO/TC215 has agreed to exempt the following items from standardization efforts:
 - standardizing the clinical practice of medicine and
 - defining 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.

- 2) 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.
- 3) 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 under consideration within ISO/TC215/WG 5.

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Health informatics — Health cards — General characteristics

1 Scope

This International Standard is designed to confirm the identities of both the healthcare application provider and the healthcard holder in order that information may be exchanged by using cards issued for healthcare service.

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 the physical characteristics and recording techniques. Security issues should 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 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 3166 (all parts), *Codes for the representation of names of countries and their subdivisions*

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

ISO/IEC 7811 (all parts), *Identification cards — Recording techniques*

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

ISO/IEC 7816 (all parts), *Identification cards — Integrated circuit cards (with contacts)*

ISO/IEC 10373 (all parts), *Identification cards — Test methods*

ISO/IEC 10536 (all parts), *Identification cards — Contactless integrated circuit(s) cards — Close-coupled cards*

ISO/IEC 11693, *Identification cards — Optical memory cards — General characteristics*

ISO/IEC 14443 (all parts), *Identification cards — Contactless integrated circuit(s) cards — Proximity cards*

ISO/IEC 15420, *Information technology — Automatic identification and data capture techniques — Bar code symbology specification — EAN/UPC*

ISO/IEC 15438, *Information technology — Automatic identification and data capture techniques — PDF417 bar code symbology specification*

ISO/IEC 15693 (all parts), *Identification cards — Contactless integrated circuit(s) cards — Vicinity cards*

ISO 20302, *Health informatics — Health cards — Numbering system and registration procedure for issuer identifiers*

3 Terms and definitions

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

3.1 application

that which is provided for specific services in healthcare fields and which could be carried out by using a separate set of information stored in the healthcare data card

EXAMPLE An application for making appointments for medical treatment, an application for providing access to medical records and an application for certifying health funding status are all examples of healthcare applications.

3.2 card issuer

entity that records the information to activate the card, register and distribute 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.

3.3 field identifier

character strings, numeric characters and/or icons placed near the visually readable data that help to identify the visually readable data

3.4 front side of the card back side of the card

see International Standards related to the applied recording techniques and card technologies, namely:

- ISO/IEC 7811 for cards with embossing and/or magnetic stripe;
- ISO/IEC 7816 for integrated circuit cards;
- ISO/IEC 14443 for contactless integrated circuit cards (proximity cards);
- ISO/IEC 11693 for optical memory cards

3.5 healthcare application provider

entity that provides healthcare services to the healthcard holder and in the course doing so, makes use of the card and records the health care application information onto the cards

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 If the card contains an application for medical appointments, a hospital could be an application provider as it provides appointment services to the patients, while 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.

3.6 healthcare data card

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

[ISO 21549-1:2004, definition 3.2]