This is a free page sample. Access the full version online.

National Standards Authority of Ireland

IRISH STANDARD

I.S. CR 13643:2000

ICS 35.240.15

National Standards
Authority of Ireland
Dublin 9
Ireland

Tel: (01) 807 3800
Tel: (01) 807 3838

MACHINE READABLE CARDS - HEALTHCARE APPLICATIONS - LOGICAL DATA STRUCTURES AND CONCEPTS FOR DIFFERENT CARD TECHNOLOGIES FOR USE BY PATIENTS IN HEALTH APPLICATIONS

This Irish Standard was published under the authority of the National Standards Authority of Ireland and comes into effect on:

July 24, 2003

NO COPYING WITHOUT NSAI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

© NSAI 2000

Price Code O

Údarás um Chaighdeáin Náisiúnta na hÉireann

This is a free page sample. Access the full version online.

This is a free page sample. Access the full version online.

CEN REPORT

RAPPORT CEN

CEN BERICHT

CR 13643

December 2000

ICS

English version

Machine readable cards - Healthcare applications - Logical data structures and concepts for different card technologies for use by patients in health applications

This CEN Report was approved by CEN on 25 November 2000. It has been drawn up by the Technical Committee CEN/TC 224.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

© 2000 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

Ref. No. CR 13643:2000 E

This is a free page sample. Access the full version online.

Contents

Foreword 4

Introduction 5

1 Scope 6

2 Normative references 6

3 Terms and definitions 7

4 Symbols and abbreviated terms 8

5 Notations 8

6 Logical model 8
6.1 Existing data structures 8
6.2 Logical data structures 9
6.3 Encoding and storage of ASN.1 objects 9
6.4 Storage of non-standardized data 9

7 Data definitions 9
7.1 "HealthCareData" data object 10
7.1.1 The "DeviceData" data object 11
7.1.2 The “DevDirectory” data object 11
7.1.3 Identification of card issuers and registered application providers 11

8 Data encoding and manipulation rules 14

Annexe A (normative) **ICC technology** 16
A.1 Introduction 16
A.2 IC Cards memory lay-out 16
A.2.1 Structure of card memory 16
A.2.2 Identification of directories and files 16
A.2.3 Access conditions to data in a standard EF 17
A.2.4 The allocation of tags for data objects 17
A.3 Organisation bases 19
A.4 Data objects distribution 23
A.4.1 Device files 23
A.4.2 Holder file - EF_{Holder}, path: ‘3F00 506x’ 28
A.4.3 Patient DF 28
A.4.4 Miscellaneous files 35
A.5 Common data types 39
A.5.1 RefPointer 39
A.5.2 CodedData 39
A.5.3 AccessoryAttributes 39
A.6 Adding proprietary data to the HC card 39
A.6.1 Private templates and data elements 40
A.6.2 Private EFs 40
A.6.3 Private DFs 41

Annexe B (normative) Memory and optical cards 42
B.1 Data Model 42
B.2 The Patient Data Card data object 43
B.3 Data storage 43
B.4 Data storage for without partitioning 43
B.5 Storage of individual data element 44
B.6 Data tags 44
B.7 Data storage for devices with partition 44

Annex C (normative) **ISO compatible magnetic stripe cards** 45
C.1 Introduction 45

This is a free page sample. Access the full version online.

C.2 Data Model **45**
C.3 The Patient Data Card data object **45**
C.4 Track 1 ..... **46**
C.4.1 Data encoding principles **46**
C.4.2 ASN.1 structure **46**
C.4.3 Logical structure **46**
C.4.4 Encoding **46**
C.5 Track 2 ..... **47**
C.5.1 Data encoding principle **47**
C.5.2 ASN.1 structure **47**
C.5.3 Logical structure **47**
C.5.4 Encoding **47**

Annex D (normative) **Templates to be used with data stored on tracks 1 and 2 of patient data cards using ISO compatible magnetic stripe cards** **48**
D.1 Introduction **48**
D.2 Track data structure identifier =1 ..... **48**
D.2.1 Data encoding principles **48**
D.2.2 ASN.1 Structure **48**
D.2.3 Logical structure **48**
D.2.4 Encoding **49**
D.3 Track data structure identifier =1 ..... **49**
D.3.1 Data shall be encoded according to the principles outlined in EN ISO/IEC 7811-2:1996. ..... **49**
D.3.2 ASN.1 Structure **49**
D.3.3 Logical structure **49**
D.3.4 Encoding **50**

This is a free page sample. Access the full version online.

Foreword

This document has been prepared by CEN /TC 224, "Machine readable cards, related device interfaces and operations".

This CEN Report is published to provide availability of the work undertaken by CEN/TC 224 during the years 1992-1997 which was aiming to produce a European standard entitled "Machine readable cards – Healthcare applications – Logical data structures and concepts for different card technologies for use by patients in health applications". CEN/TC 224 has decided to close its own work towards completing this standards work being convinced that the work effort should be concentrated and will be better continued in ISO/TC 251 "Health informatics".

The scope of the work presented herein was intended to provide solutions for different types of storage technologies although the focus of interest in Europe has been the possibilities offered by Integrated Circuit Cards. This CEN Report describes an important approach towards providing a solution where, with certain constraints, the same structure of information objects could be provided for different technologies facilitating the integration of card applications with various health related applications using databases and network communication in addition to the information stored on cards.

The work of CEN/TC 224 started in parallel with CEN/TC 251, to a large extent with the same experts. CEN/TC 251 received a mandate from EU and EFTA and developed the ENV 12018 entitled "Medical informatics – Identification, administrative, and common clinical data structure for Intermittently Connected Devices used in healthcare (including machine readable cards)" which was adopted in 1997. This standard is currently undergoing a major revision in preparation for being transferred to a European Standard.

This CEN Report is largely based on ENV 12018 and contains large parts of this standard. The reason for including those initially was that as it had not been finalized, it could not safely be referenced. During the completion of this CEN/TC 224 work a few amendments compared to ENV 12018:1997 were included and provide one of the inputs to the revision of ENV 12018.

This CEN Report is also being presented to ISO/TC 215 and it is expected that the basic ideas and many details will be able to provide the basis for one or very likely several International Standards on this topic.

It is important to understand that the specification provided in this CEN Report although expressed as normative requirements, is not a European Standard.

SAI GLOBAL

This is a free preview. Purchase the entire publication at the link below:

Product Page

Looking for additional Standards? Visit Intertek Inform Infostore

Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation