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Information technology — Personal identification — ISO-compliant driving licence

Part 2: Machine-readable technologies

Technologies de l'information — Identification des personnes — Permis de conduire conforme à l'ISO

Partie 2: Technologies lisibles par une machine

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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 18013-2 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 17, *Cards and personal identification*.

ISO/IEC 18013 consists of the following parts, under the general title *Information technology — Personal identification — ISO-compliant driving licence*:

— *Part 1: Physical characteristics and basic data set.* Part 1 defines the basic terms for ISO/IEC 18013, including physical characteristics, basic data element set, visual layout, and physical security features.

— *Part 2: Machine-readable technologies.* Part 2 defines the technologies that may be used for ISO/IEC 18013, including the logical data structure and data mapping for each technology.

— *Part 3: Access control, authentication and integrity validation.* Part 3 defines the electronic security features that may be incorporated under ISO/IEC 18013, including mechanisms for controlling access to data, verifying the origin of an ISO-compliant driving licence, and confirming data integrity.

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Introduction

This part of ISO/IEC 18013 prescribes requirements for the implementation of machine-readable technology on an ISO-compliant driving licence (IDL).

One of the functions of an IDL is to facilitate international interchange. Storing IDL data in machine-readable form supports this function by speeding up data input and eliminating transcription errors. Consequently, the automation and productivity of traffic law enforcement and other traffic safety processes can be improved.

This part of ISO/IEC 18013 allows issuing authorities to customise machine-readable data for domestic use. Apart from international interchange, the use of an IDL as a domestic driving licence thus provides for domestic standardisation and creates a domestic infrastructure capable of processing IDLs issued by other issuing authorities.

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Information technology — Personal identification — ISO-compliant driving licence

Part 2: Machine-readable technologies

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1 Scope

ISO/IEC 18013 establishes guidelines for the design format and data content of an ISO-compliant driving licence (IDL) with regard to human-readable features (ISO/IEC 18013-1), ISO machine-readable technologies (ISO/IEC 18013-2), and access control, authentication and integrity validation (ISO/IEC 18013-3). It creates a common basis for international use and mutual recognition of the IDL without impeding individual countries/states in applying their privacy rules and national/community/regional motor vehicle authorities in taking care of their specific needs.

The purpose of storing IDL data on machine-readable media on the IDL is to

- increase productivity (of data and IDL use),
- facilitate electronic data exchange, and
- assist in authenticity and integrity validation.

This part of ISO/IEC 18013 thus specifies the following:

- mandatory and optional machine-readable data;
- the logical data structure;
- encoding rules for the machine-readable technologies currently supported.

To prevent unauthorised access to the data contained on a contactless IC (e.g. by eavesdropping), provision is made to protect the privacy of the licence holder via basic access protection [requiring a human-readable and/or machine-readable key/password on the IDL to access the data on the PIC (via protected-channel communication)]. The implementation details of this function however are defined in ISO/IEC 18013-3.

Provision is made for issuing authorities to validate the authenticity and integrity of the mandatory and optional data. In addition, the option of protecting access to optional data (beyond basic access protection) is provided for. The exact mechanism used to achieve such protection (e.g. encryption and/or additional access control) is specified in ISO/IEC 18013-3.

2 Conformance

A driving licence is in conformance with this part of ISO/IEC 18013 if it meets all mandatory requirements specified directly or by reference herein. Compliance with ISO/IEC 18013-1 is not required for compliance with this part of ISO/IEC 18013, except for those parts of ISO/IEC 18013-1 directly referenced in this part of ISO/IEC 18013 outside of Clause 3. Conversely, the incorporation of a machine-readable technology which is

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not compliant with this part of ISO/IEC 18013 does not necessarily render the IDL non-compliant with ISO/IEC 18013-1.

3 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 3166-1:2006, *Codes for the representation of names of countries and their subdivisions — Part 1: Country codes*

ISO/IEC 5218:2004, *Information technology — Codes for the representation of human sexes*

ISO/IEC 7812-1:2006, *Identification cards — Identification of issuers — Part 1: Numbering system*

ISO/IEC 7816-5:2004, *Identification cards — Integrated circuit cards — Part 5: Registration of application providers*

ISO/IEC 7816-11:2004, *Identification cards — Integrated circuit cards — Part 11: Personal verification through biometric methods*

ISO/IEC 8859-1:1998, *Information technology — 8-bit single-byte coded graphic character sets — Part 1: Latin alphabet No. 1*

ISO/IEC 18013-1, *Information technology — Personal identification — ISO-compliant driving licence — Part 1: Physical characteristics and basic data set*

ISO/IEC 19785-1:2006, *Information technology — Common Biometric Exchange Formats Framework — Part 1: Data element specification*

ISO/IEC 19785-3:2007, *Information technology — Common Biometric Exchange Formats Framework — Part 3: Patron format specifications*

ISO/IEC 19794-2:2005, *Information technology — Biometric data interchange formats — Part 2: Finger minutiae data*

ISO/IEC 19794-4:2005, *Information technology — Biometric data interchange formats — Part 4: Finger image data*

ANSI D20-2003, *Data Element Dictionary For Traffic Records Systems* (April 2003)

IAFIS-IC-0110(V3), *WSQ Gray-scale Fingerprint Image Compression Specification*, Federal Bureau of Investigation, Criminal Justice Information Services Division (1997)

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4 Terms, definitions and abbreviations

For the purposes of this document, the terms and definitions given in ISO/IEC 18013-1 and the following apply.

4.1
basic access protection
BAP
requiring a human-readable and/or machine-readable key/password on the IDL to access the data on the secure IC via protected-channel communication

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