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Information technology — Personal identification — ISO-compliant driving licence —

Part 1: Physical characteristics and basic data set

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

Partie 1: Caractéristiques physiques et jeu de données de base

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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.

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 document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see 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 and IEC 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 (see 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 voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by ISO/IEC JTC 1, *Information technology*, SC 17, *Cards and personal identification*.

This second edition cancels and replaces the first edition (ISO/IEC 18013-1:2005), which has been technically revised.

The most significant changes are the following:

— Following the revision of ISO/IEC 18013-3, magnetic stripe and optical memory machine readable technologies are no longer supported by this document.

— The vehicle categories in respect of which driving licence may be issued have been updated to incorporate the contemplated amendments to the UN Conventions.

— The document security features have been restructured and grouped in accordance with the nature of the features in respect of the card body, security design, inks/pigments and protection of personalised data. The minimum number of mandatory and optional security features to be included in the IDL from each of the groups is specified in respect of each type of fraud and security level.

— The content of the IDL Booklet has been revised in accordance with the contemplated amendments to the UN Conventions.

A list of all the parts in the ISO/IEC 18013 series can be found on the ISO website.

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0 Introduction

0.1 General

This document prescribes requirements for an ISO-compliant driving licence (IDL). The intent of the document is to allow the issuance of one document to serve the purpose of both a domestic driving permit (DDP) and an international driving permit (IDP).

Issuing authorities issuing domestic driving licences (DDLs) that do not conform to this document can benefit from using parts of the document for their own domestic purpose. These issuing authorities should continue to issue a second document that follows the requirements of the DDP and IDP for international use.

0.2 Definition, function and requirements of International Driving Permit (IDP)

The United Nation Conventions on Road Traffic of 1949 Geneva and 1968 Vienna are the responsibility of the Secretary General at the United Nations Headquarters, New York. The maintenance of the 1968 Convention has been assigned to UN/ECE-Transport Division, Geneva, Switzerland. The 1949 Convention is not being maintained and it continues to exist due to the fact that certain countries who are signatories to the 1949 Convention have not acceded or ratified the 1968 Convention. The ultimate goal of the Conventions is road safety. The Conventions prescribe provisions for both a DDP and an IDP.

The IDP serves as a means of mutual recognition in that it is issued by the holder's home country licensing authority requesting another country who has ratified the Conventions to allow the holder the permission to operate a motor vehicle of authorized categories under specific conditions/restrictions. The IDP is essentially a translation of the DDP except in a common worldwide-recognized standardized format for global recognition and acceptance as specified in the Conventions. The IDP also makes provision for a state to disqualify the holder of an IDP from driving in that country by recording such in the designated area.

However, following the amendment of Clause 2 of Article 41 of the 1968 Convention on 29 March 2011 that the IDP only be recognized if accompanied by the DDP and that the DDP be recognised by all Contracting Parties, the IDP is rendered as a translation of the DDP only by the 1968 Convention. Furthermore, the 1968 Convention places all confidence in the integrity of the DDP, which according to Annex 6 shall take the form of a document and may be made of plastic or paper, without detailing any minimum requirements to protect the integrity of the document. Hence the DDP will become the focus of the attention of forgers and criminal activity. In the case of many countries that issue a DDP which is not in conformance with this document, such DDP will not be able to withstand the test of time.

0.3 Harmonisation and interoperability

The above general definition of a driving licence implies a human-readable document with the following properties:

— The document contains sufficient information for the identification of the licence holder.

— The document conveys the driving privileges of the licence holder in a standardised manner for consistent interpretation.

— The document is difficult to counterfeit.

— The document is secure to resist alteration.

In today's worldwide freedom of movement, modern driving licence systems impose additional requirements with the advent and need for machine-assisted storage, retrieval, reading and verification technologies for facilitation of data protection and secure communication that the Conventions have not addressed.

To achieve maximum global harmonisation and interoperability, standards are required to provide common platforms for visual human-readable evidence as well as for machine-assisted storage,

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retrieval, reading and verification by the use of ISO data storage technologies incorporated into the driving licence document.

0.4 Current limitations of International Driving Permit

The problems and concerns with the current IDP that have been reported include:

— Easily copied, altered, or simulated and difficult for law enforcement authorities to detect fraudulent licences from genuine documents.

— Many non-government IDP issuing authorities do not query their respective government motor vehicle agencies to establish if the DDP presented is still valid and still current.

— There is no register/directory of national motor vehicle agency addresses for the inquiry and exchange of information among the agencies to verify the validity of a presented IDP.

— Does not incorporate the ISO machine-assisted data storage technologies.

— Suspension or cancellation of domestic driving licence (DDL) or domestic driving permit (DDP) *should* result in an automatic suspension or cancellation of the IDP; however, the current system does not facilitate that.

— The IDP holder may circumvent disqualifications entered on their original IDP by obtaining a new IDP.

— Validity of the IDP is currently limited to a maximum of 1 to 3 years, depending on the UN Convention followed.

0.5 Replacement of International Driving Permit with ISO-compliant Driving Licence (IDL)

At one time, the Conventions contained specifications in regard to a mandatory "model" data element set (particulars) and a mandatory design layout of defined dimensions for both DDP and IDP. Subsequently, the 1968 Convention's mandatory requirement for the defined design layout of the DDP was rescinded, allowing contracting parties to produce the DDP in either paper or plastic and in the case of plastic in the preferred format of an ISO ID-1 size card. Furthermore, the 1968 Convention requires all contracting parties to recognise any DDP conforming to the provisions of Annex 6, yet it does not prescribe the minimum properties of the document to ensure that the integrity of the DDP can be maintained.

Since the March 2011 amendment of the 1968 Convention effectively integrated the two documents (DDP and IDP) into a single document, this document provides for the following minimum requirements:

— Layout and integrity properties of the DDP in the dimensions of an ISO ID-1 size card, allowing the use of ISO machine-readable technologies at the option of motor vehicle authorities in the contracting parties.

— Layout and dimensions of the paper document for the IDP translation of the DDP inclusive of the language provisions of Annex 7 of the 1968 Convention.

Compliance with this document is at the discretion of the issuing authority.

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Information technology — Personal identification — ISO-compliant driving licence —

Part 1: Physical characteristics and basic data set

1 Scope

This document establishes guidelines for the design format and data content of an ISO-compliant driving licence (IDL) in regard to both visual human-readable features and ISO machine-readable technologies. It creates a common basis for international use and mutual recognition of the IDL without impeding individual national/community/regional motor vehicle authorities in taking care of their specific needs.

The design approach of the IDL ISO ID-1 size card is to establish a secure domestic driving permit (DDP) for both human verification and machine readability and accompanying booklet with sleeve insert pocket for international use instead of the international driving permit (IDP) paper document (see Annex G).

The basic document design premises include:

— A minimum common mandatory data element set.

— A common layout for ease of recognition.

— Minimum security requirements for both human and machine verification.

— Interoperability of the machine-readable content.

At the discretion of national/community/regional motor vehicle authorities it allows for:

— Inclusion of supplementary optional data elements to meet the needs of specific national/community/regional requirements apart from the minimum common mandatory data element set.

— Additional document physical security elements at the option of national/community/regional authorities, and facilitates international procurements.

— Incorporation of ISO/IEC JTC1/SC17 machine-readable technologies including integrated circuit with contacts and contactless integrated circuit technology, and ISO/IEC JTC1/SC31 1-dimensional / 2-dimensional bar codes, at the option of national/community/regional authorities.

— Incorporation of current and future technologies (including biometrics, cryptography, data compression) at the option of national/community/regional authorities.

A major benefit of these design premises is that a single card may serve a dual purpose of both a national/community/regional licence as well as an internationally recognized licence. Therefore, one card, in most cases, can replace the need for two documents. Alternatively, those countries that choose to maintain their individual domestic design or not to use Latin characters on their domestic driving licence for example can issue a second card with or without ISO machine-readable technologies. This second card can serve as DDP to be used with the accompanying booklet with sleeve insert pocket for international use instead of the current IDP paper document.

This new IDL design yields a document that:

— Is more secure from counterfeiting and alteration than the previous DDP and IDP documents.

— Allows authorities to verify the authenticity of the document.

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— Integrates the personal data into a secure ID-1 size medium.

— Allows a more reliable identification of the licence holder.

— Allows for machine-readable technologies.

— Facilitates information exchange and mutual recognition among motor vehicle authorities.

— Allows the IDL to serve simultaneously as a DDP and IDP when accompanied by the booklet.

Issuing authorities may introduce other functions to an IDL provided that it does not interfere with the driving licence function and the requirements in this document are not compromised.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 7810, *Identification cards — Physical characteristics*

ISO/IEC 19794-5:2011, *Information Technology — Biometric Interchange Formats — Part 5: Face Image Data, Annex A, B and C*

European Commission Directive 2006/126/EC of 20 December 2006 O.J. EC No L 403/18, as amended or supplemented by Commission Directive 2011/94/EU of 28 November 2011 and Commission Directive EU 383/2012 of 4 May 2012

UN Convention on Road Traffic. Vienna, 8 November 1968, as amended by Amendment of UN Convention on Road Traffic, Vienna of 29 March 2011

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

3.1
alphabetic character
A
hexadecimal ranges '41' – '5A' (Latin capital letters), '61' – '7A' (Latin small letters), 'C0' – 'D6', 'D8' – 'F6' and 'F8' – 'FF' of ISO/IEC 8859-1

3.2
card
document with nominal dimensions in conformance with ISO/IEC 7810 ID-1

3.3
contracting party
country that is a signatory to the UN Convention Geneva 1949, or a country that has signed, ratified or acceded to the provisions of the UN Convention Vienna 1968

3.4
country distinguishing sign
abbreviation for issuing country identified to the UN Secretary General in accordance with the UN Conventions (1949 and 1968) for vehicles in international traffic (see Annex F), on the driving licence (human-readable)

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3.5
data element
item of data that may appear on the driving licence in either human or machine-readable form

Note 1 to entry: A distinction is made between static data elements and dynamic data elements.

3.5.1
static data element
data element associated with the issuing authority, and which is the same for all DLs issued on behalf of or by that issuing authority

3.5.2
dynamic data element
data element associated with the licence holder and thus varies from one DL to the next for a particular licensing authority, thus specifically excluding the issuing authority data element

3.6
document recognition
educational knowledge and ability to recognize the validity of the driving licence of both national and international jurisdictions including data elements, formatting, visual biometrics (e.g. portrait, signature), electronic readable features and document security features

3.7
driving licence
DL
document issued to a driving licence holder by an issuing authority granting the individual the privilege to operate a motor vehicle within its jurisdiction

Note 1 to entry: The document may facilitate driving licence transactions and provide input data for such transactions. This issued document incorporates several elements and qualifications regarding the licence holder: positive identification of the individual; evidence of knowledge of laws and practices; practical driving proficiency in specific motor vehicle class categories; and, the individual's health restrictions (e.g. corrective eye lenses).

Note 2 to entry: Driving licences are classified into four types of documents, namely domestic driving licence, domestic driving permit, ISO-compliant driving licence and international driving permit.

3.7.1
domestic driving licence
DDL
document conveying driving privilege for operating motor vehicles within country/community of issuance, and which may partially only or may not be issued in conformance with ISO/IEC 18013

3.7.2
domestic driving permit
DDP
driving licence issued in conformance with the UN Convention Vienna 1968, annex 6

Note 1 to entry: The prescribed model for the domestic driving permit issued in conformance with UN Convention Geneva 1949, annex 9 differs in format and dimensions from the DDP. Should the UN Convention Geneva 1949 be amended in this regard to be similar to the UN Convention Vienna 1968, this definition would also apply to the domestic driving permit issued in conformance with the UN Convention Geneva 1949. In practice the current domestic driving permit issued by most of the signatories of the UN Convention Geneva 1949 and who have not acceded to the UN Convention Vienna 1968 does not conform to the prescribed model of the UN Convention Geneva 1949 but rather to the prescribed model of the UN Convention Vienna 1968.

3.7.3
ISO-compliant driving licence
IDL
DDP issued in conformance with ISO/IEC 18013, which may be used for both domestic and international use

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3.7.4
international driving permit
IDP
driving licence issued in conformance with the UN Convention Vienna 1968, annex 7

Note 1 to entry: The prescribed model for the international driving permit issued in conformance with UN Convention Geneva 1949, annex 10 differs in format and dimensions from the IDP and does not have to be accompanied by the domestic driving permit for it to be recognised by another contracting member of the UN Convention Geneva 1949. However, a contracting member of the UN Convention Vienna 1968 may require that the international driving permit issued in conformance with UN Convention Geneva 1949 be accompanied by the domestic driving permit. Should the UN Convention Geneva 1949 be amended in this regard to be similar to the UN Convention Vienna 1968, this definition would also apply to the international driving permit issued in conformance with the UN Convention Geneva 1949.

3.8
first line inspection
cursory examination without tools or aids that involves easily identifiable visual or tactile features for rapid inspection at point of usage

3.9
human-readable data / information
data or information that is printed or engraved that is visually present on a driving licence and designed to be interpreted by a human

3.10
image
representation of the visual likeness of a subject

EXAMPLE Portrait, finger print, or signature.

Note 1 to entry: Images may be collected and stored digitally or otherwise, and rendered for visual inspection using a variety of systems.

3.11
issuing authority
licensing authority, or issuing country if separate licensing authorities have not been authorised

3.12
issuing country
country according to Annex F which issued the DL or within which the licensing authority is located

3.13
jurisdiction
territory (country, state, province) within which the licensing authority has the mandate and responsibility to apply motor vehicle laws/directives

3.14
licence holder
individual to whom a DL is issued, i.e. the legitimate holder of the driving privileges reflected on a DL

3.15
licensing authority
authorised agent organisation that issues a DL

EXAMPLE National, federal, state, provincial, regional, territorial or local Ministry of Transport, Department of Motor Vehicles, or Police Agency.

3.16
machine-readable data / information
data or information that is encoded into a machine-readable medium, such as a bar code or integrated circuit

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3.17
mandatory element
element that shall be required

3.18
mutual recognition
privilege of citizens from two jurisdictions to drive an eligible vehicle under specified conditions/ restrictions in each other's jurisdictions without the requirement of undergoing additional practical and/or written testing

Note 1 to entry: Mutual recognition is administered by way of agreements between the governments of the jurisdictions.

3.19
non-portrait side of card
opposite face from the portrait side

3.20
numeric character
N
hexadecimal range '30' – '39' (digits 0 to 9) of ISO/IEC 8859-1

Note 1 to entry: In this definition ISO/IEC 8859-1 is used for identification of the character and not for encoding.

3.21
optional element
element that may be used, but that is not mandatory

3.22
pictograph
graphical representation associated with a specific value or instance of a predefined classification or restriction, such as a vehicle category or medical condition

Note 1 to entry: See Annex B.

3.23
portrait
two or three dimensional representation of the face of a person in a minimum of full-face frontal pose

Note 1 to entry: See Annex A.

3.24
portrait side of card
face of the card carrying visual information containing the reproduction of the portrait of the licence holder

3.25
second line inspection
examination by trained inspectors with simple equipment

EXAMPLE Simple equipment includes magnifying glass, UV light, machine-reading equipment such as barcode reader or integrated circuit reader.

3.26
security element
distinct physical element or property of a document that contributes to at least one security feature

Note 1 to entry: Depending on the method of verification, one element may be designed to provide one or more security features that may apply to the same or to different categories.

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3.27
security feature
feature of a document that is linked to a specific method of verification and thus helps ensure the document's integrity and/or authenticity as a properly issued document, including that it has not been tampered with

3.28
special character
S
hexadecimal ranges '20' – '2F' (<space> ! " # $ % & ' ( ) * + , - . /), '3A' (:), '3C' – '40' (< = > ? @), '5B' – '60' ([\ ] ^ _ `), '7B' – '7E' ({ | } ~), 'A1' – 'AC' (¡ ¢ £ ¤ ¥ ¦ § ¨ © ª « ¬), 'AE' – 'A5' (® ¯ ° ± ^{2} ^{3} ´ µ), and 'A7' – 'BF' (· ¸ ^{1} º » ¼ ½ ¾ ¿) of ISO/IEC 8859-1

Note 1 to entry: The semicolon ";", multiplication sign "×" and division sign "÷" are defined as delimiters and the pilcrow sign "¶" is defined as the end-of-file character in the machine-readable data / information.

3.29
supranational
extending beyond or transcending established borders or spheres of influence held by separate nations

EXAMPLE This applies to entities such as the Economic Community of West African States, European Union and Southern Africa Development Community.

3.30
text
human-readable A, N or S

3.31
third line inspection
inspection by forensic specialists conducting detailed examination which allows for more in-depth evaluation and may require special equipment to provide true verification

4 Conformance

A driving licence is in conformance with this document if it meets all mandatory requirements specified directly or by reference herein.

5 Human-readable data elements on IDL

5.1 Visual presence

Data elements other than those discussed in this document may be visually present on an IDL provided that such elements do not interfere with the form, content and data elements specified in this document.

EXAMPLE 1 Data elements originating from domestic or regional driving licence requirements (see Figure A.5).

EXAMPLE 2 IDL that conforms to ISO/IEC 18013-2 or ISO/IEC 18013-3 may include data elements used to assist in the processing of the machine-readable data elements on the IDL, such as the scanning area identifier (SAI) comprising one or more graphical elements that demarcate an input string (see Figure A.7 and A.14).

5.2 Data element tables

The tables in 5.3 and 5.4 specify the mandatory and optional elements that appear on the IDL.

Column 1 (**Item #**): serves as a reference indicator for citation elsewhere in this document.

Column 2 (**Data field reference code on IDL**): reference code shall be visibly included as text on the IDL to identify the data element for purposes of interpreting the data and other international interchange

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