PD ISO/TS 26683-2:2012

BSI Standards Publication

Intelligent transport systems — Freight land conveyance content identification and communication (FLC-CIC)

Part 2: Application interface profiles

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National foreword

This Published Document is the UK implementation of ISO/TS 26683-2:2012.

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This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Intelligent transport systems — Freight land conveyance content identification and communication (FLC-CIC) —

Part 2: Application interface profiles

Systèmes intelligents de transport — Identification et communication du contenu des marchandises transportées par voie terrestre —

Partie 2: Profils d'interface d'application

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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.

In other circumstances, particularly when there is an urgent market requirement for such documents, a technical committee may decide to publish other types of document:

— an ISO Publicly Available Specification (ISO/PAS) represents an agreement between technical experts in an ISO working group and is accepted for publication if it is approved by more than 50 % of the members of the parent committee casting a vote;

— an ISO Technical Specification (ISO/TS) represents an agreement between the members of a technical committee and is accepted for publication if it is approved by 2/3 of the members of the committee casting a vote.

An ISO/PAS or ISO/TS is reviewed after three years in order to decide whether it will be confirmed for a further three years, revised to become an International Standard, or withdrawn. If the ISO/PAS or ISO/TS is confirmed, it is reviewed again after a further three years, at which time it must either be transformed into an International Standard or be withdrawn.

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/TS 26683-2 was prepared by Technical Committee ISO/TC 204, *Intelligent transport systems*.

ISO/TS 26683 consists of the following parts, under the general title *Intelligent transport systems — Freight land conveyance content identification and communication (FLC-CIC)*:

— *Part 1: Context, architecture and referenced standards*

— *Part 2: Application interface profiles*

The following parts are planned:

— *Part 3: Handling of cargo stress information during road transport*

— *Part 4: Security profile*

Introduction

This Technical Specification is one of a multi-part family of ISO deliverables (ISO/TS 26683).

In a scenario of international land transport and logistics, it is often difficult for a consignor and a consignee to know the physical real-time location of cargo after consigning the cargo to a transport and logistics service provider. Where a cargo is transferred from one haulier (i.e. haulage contractor) to another, obtaining information of the manifest at a detailed level is often difficult. Auditing the actual content of a consignment en route; and monitoring cargo stress measurement information during road transport; is also difficult, especially in the case of sealed containers such as sealed ISO intermodal containers. It is a different task from that of progressing order administration from consignor to consignee.

There is no single organization responsible for standards through the intermodal supply chain. ISO 26683 is a co-ordinating standard that builds on, uses and may provide data to instantiations which use ISO/TS 24533, ISO 17687, UN/CEFACT, ISO 7372, EDIFACT, UBL, ISO, ISO 17262, ISO 17263 and other standards.

Even where comprehensive international freight transport systems are in place, they rely on the level of detail that exists within the central computer system, and without the ability to monitor the actual contents, there is no possibility to do the following:

a) Audit the actual contents of the consignment. This is particularly difficult in the case of a sealed intermodal container (ISO 668 and subsequent related standards for freight containers).

b) Monitor the condition of the contents of the consignment (cargo stress measurement information).

The ISO 26683 family of standards are therefore complementary to the context of ISO 24533 and may well provide sources of data required by such systems, and an electronic auditing capability. ISO 17687 does not address the means by which its data is collected and ISO 26683 provides several optional means to collect its data.

The ISO 26683 series envisages that a combination of existing technologies can be used to agglomerate/aggregate relevant data and use a tractor/truck mounted communications means to realize real-time cargo visibility of land transport and is thus not dependent on future technologies (although it will be suitable for future technical means to deliver its profile data).

ISO/TS 26683-1 specifies the context and architecture, and provides a list of reference standards for the ISO 26683 range of deliverables. Further details concerning the complementary nature of the ISO 26683 family of Standards to ISO 24533, EFM, ISO 17687, IEEE 1512.3, UN/CEFACT, particularly UN/CEFACT UMM, ISO 7372, OASIS, UBL can be found in ISO/TS 26683-1:2012, Clauses 5 and 6.

ISO 26683 is designed to present data to end-to-end cargo application systems, it does not provide end to end system (consignor to consignee) system design.

This Technical Specification (ISO/TS 26683-2) is the second part of a multi-part family of deliverables and provides optional application interface profiles for 'Freight land conveyance content identification and communication' (FLC-CIC). It is limited to the land aspects of transport.

This part of ISO/TS 26683 defines application interface profiles to agglomerate/aggregate and transfer land cargo transport data to an interrogator in order to provide improved land cargo transport data and to specify one or more modes of transfer using available ICT technologies.

— Part 3 will specify the handling of on-board cargo stress measurement information during road transport.

— Part 4 will provide a security profile requirement and definition.

Intelligent transport systems — Freight land conveyance content identification and communication (FLC-CIC) —

Part 2: Application interface profiles

1 Scope

This part of ISO/TS 26683 provides application interface profiles for land cargo transport data agglomeration and transfer (within the context and architecture described in ISO/TS 26683-1, using one or more of the reference list of International Standards defined in Annex A of ISO 26683-1:2012.

NOTE: ISO 26683 is designed to present information to end-to-end cargo application systems, it does not provide end to end system (consignor to consignee) design.

This part of ISO/TS 26683 defines a number of application interface profiles for land cargo transport data to provide more land cargo transport visibility by using current technical standards, specifications and technologies related to cargo transport.

2 Normative references

NOTE: The principal list of normatively referenced standards for this part of ISO/TS 26683 and a summary of their content is to be found in ISO/TS 26683-1.

The following referenced documents are specifically referenced within this part of ISO/TS 26683 and are therefore 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 6346, *Freight containers — Coding, identification and marking*

ISO 7372, *Trade data interchange — Trade data elements directory*

ISO 9897, *Freight containers — Container equipment data exchange (CEDEX) — General communication codes*

ISO/IEC TR 10000-1, *Information technology — Framework and taxonomy of International Standardized Profiles — Part 1: General principles and documentation framework*

ISO 10368, *Freight thermal containers — Remote condition monitoring*

ISO 10374, *Freight containers — Automatic identification*

ISO/TS 10891, *Freight containers — Radio frequency identification (RFID) — Licence plate tag*

ISO/IEC 15418, *Information technology — Automatic identification and data capture techniques — GS1 Application Identifiers and ASC MH10 Data Identifiers and maintenance*