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Security management systems for the supply chain — Electronic port clearance (EPC) —

Part 2: Core data elements

Systèmes de management de la sécurité pour la chaîne d'approvisionnement — Opérations portuaires assistées par systèmes électroniques —

Partie 2: Éléments de données principaux

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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 28005-2 was prepared by Technical Committee ISO/TC 8, *Ships and marine technology*.

This second edition of ISO 28005-2 cancels and replaces the first version of this standard. It also cancels and replaces ISO/PAS 28005-2:2009 which has been technically revised.

ISO 28005 consists of the following parts, under the general title *Security management systems for the supply chain — Electronic port clearance (EPC)*:

— *Part 1: Message structures*

— *Part 2: Core data element*

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Security management systems for the supply chain — Electronic port clearance (EPC) —

Part 2: Core data elements

1 Scope

1.1 General

This part of ISO 28005 contains technical specifications that facilitate efficient exchange of electronic information between ships and shore for coastal transit or port calls. It covers safety, security and efficiency enhancement information requirements related mainly to the relationships between the ship and the port and coastal state authorities.

This part of ISO 28005 contains the definition of core data elements for use in electronic port clearance (EPC) messages. It does not define any structuring of messages or provide any guidance on what information is required for a particular purpose; it is a general data dictionary for safety, security or operation-related maritime information. Details about message formats and applications are defined in part 1 of this standard.

The data elements in this part of ISO 28005 covers the data elements and the data model defined in the IMO Reference Data Model as specified in the IMO Compendium on Facilitation and Electronic Business. This version of the standard also contains data elements required to implement mandatory ship reporting as defined in IMO Resolution A.851(20) as amended by resolution MEPC.138(53) and bulk loading and unloading information as defined in IMO Resolution A.862(20). The mapping between ISO 28005 and the data element list in the IMO Reference Data Model is found in [Annex B](#).

1.2 Application of the core data elements

This part of ISO 28005 contains definitions of core data elements for electronic port clearance (EPC). These elements are based on requirements for ship-to-shore and shore-to-ship reporting as defined in the following:

- a) Most required information sets as defined in the FAL Convention, section 2.1. All these data sets can be sent on arrival or departure, determined by a flag in the message header (MessageHeaderType):
 - General Declaration (FAL Form 1)
 - Cargo Declaration (FAL Form 2)
 - Ship's Stores Declaration (FAL Form 3)
 - Crew's Effects Declaration (FAL Form 4)
 - Crew List (FAL Form 5)
 - Passenger List (FAL Form 6)
 - Dangerous Goods Manifest (FAL Form 7)
 - The document required under the Universal Postal Convention for mail

NOTE Only as a reference to the physical or electronic document in the ListOfCertificatesType data structure.

- Maritime Declaration of Health

NOTE This standard defines an electronic format for the required information based on the Maritime Declaration of Health (MDH) from WHO, 58th World Health Assembly, WHA58.3.

- Security-related information as required under SOLAS regulation XI-2/9.2.2 (ISPS code).
- Advance electronic cargo information for customs risk assessment purposes

NOTE This is covered as far as the cargo information data structures defined in [clause 7.3](#) satisfy the relevant WCO or national customs authority requirements.

- Advanced Notification Form for Waste Delivery to Port Reception Facilities, when communicated to the Organization.

NOTE This is based on the recommended reporting on ship-generated waste as defined in MEPC 644, which is mandatory within the European Union, as described in EU/2000/59.

- b) Required reporting as defined in the bulk loading and unloading code IMO Resolution A.862.
- c) Mandatory ship reporting system (MRS) requirements as defined in IMO Resolution A.851.
- d) ETA reporting to pilot station as defined in IMO Resolution A.960.

[Annex B](#) gives a cross-reference between the ISO 28005 elements and the data elements in the IMO Reference Data Model as defined in the FAL Compendium. This mapping is also found at the IMO site¹⁾.

The core data elements in many cases contain more information than what is required by the documents referenced above. The actual minimum reporting requirements will be defined by the relevant national or international authorities.

1.3 Types of data elements defined by this part of ISO 28005

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[Figure 1](#) shows the main types of elements that are defined and used in this part of ISO 28005. The grey boxes represent objects that are not defined in this part of ISO 28005, but which are respectively XML native elements and the concrete information objects that are results of using this part of ISO 28005.

The top-most grey box represents standard data types as defined in XML Schema Part 2 [6]. The bottom-most grey box represents an electronic XML message or a corresponding XML Schema file, containing data objects defined by using the type definitions in this part of ISO 28005.

1) <http://www.imo.org/en/OurWork/Facilitation/Pages/IMOCompendium.aspx>

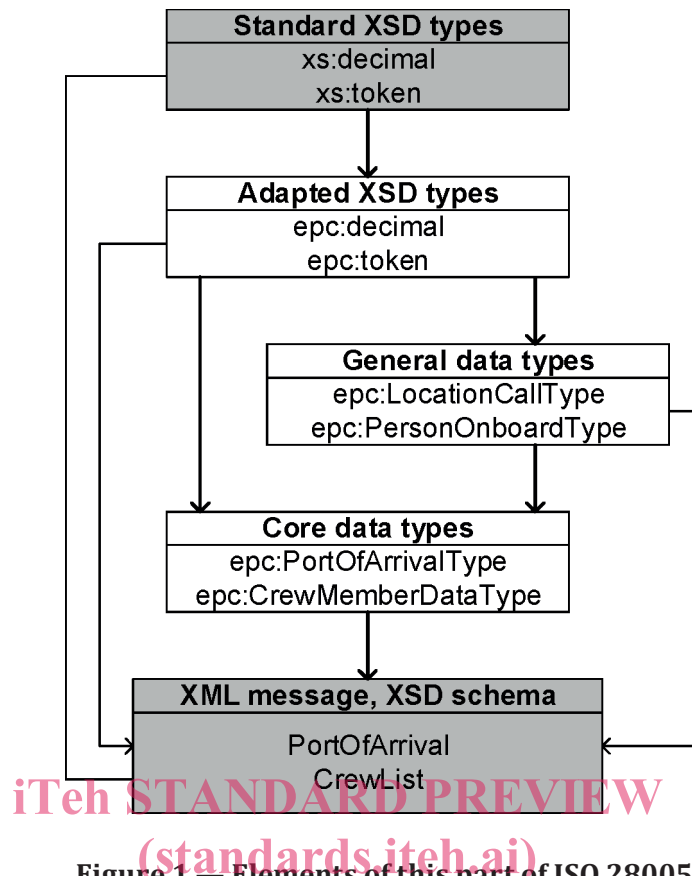


Figure 1 — Elements of this part of ISO 28005

Figure 1 does not include all elements in each group but has selected a few from each group as examples. From the top downwards, the defined elements are as follows.

- Adapted XSD types: These are basic XSD types with additional restrictions that apply for the use of these elements in this part of ISO 28005.
- General data types: These are data types that represent common concepts like a port description or a position which normally need to be specialized more to be given a context-specific meaning.
- Core data types: These are data types that also contain a contextual meaning in addition to the more generic concept, such as an arrival port instead of a general port or additional crew information instead of a general person on board information.

This part of ISO 28005 does not prohibit the use of data types other than the core data types when messages and schemas are defined (this is indicated with the thin arrows in Figure 1). However, such data elements will be given a specific semantic meaning in the specification of the message format or schema.

1.4 Structure of the data element descriptions

Figure 2 gives an outline of the structure of this part of ISO 28005. The two rectangles at the top represent the general data types outlined in the previous clause while the row of rectangles at the bottom represents the EPC core elements.

| Adapted XSD Types (Clause 5) | | | | | | | | | | |
|-------------------------------|-------|--------------------|------------------------|----------|-----------------|------------------|------------------|----------|-----------------------|--------|
| General data types (Clause 6) | | | | | | | | | | |
| Ship ID | Cargo | Crew and passenger | Class and certificates | Security | Service related | Ship particulars | Vessel operation | Location | Waste and environment | Health |
| 7.2 | 7.3 | 7.4 | 7.5 | 7.6 | 7.7 | 7.8 | 7.9 | 7.10 | 7.11 | 7.12 |

Figure 2 — Overview of the structure of this part of ISO 28005

The groups are loosely based on the order in which they appear on typical FAL forms:

- a) Ship ID: ship identification and contact details.
- b) Cargo: data related to cargo and cargo types.
- c) Crew and passenger: crew- and passenger-related data.
- d) Class and certificates: data related to class and certificates kept on board.
- e) Security: mainly ISPS-related data.
- f) Service-related: data related to services requested by the ship, including message headers and clearance request and status.
- g) Ship particulars: static data about the ship.
- h) Vessel operation: data that is dependent on current operation or voyage; also physical data that changes, e.g. with loading such as draught.
- i) Location: different ways to describe a location.
- j) Waste and environment: currently, this section contains information about waste.
- k) Health: various health data related to both the ship and persons onboard.

The grouping of core elements is for convenience only and need not result in any particular structuring of EPC messages. Thus, the data elements, when used in a message or an XSD file, will not normally be grouped or further structured.

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 3166-1, *alpha-2 code: Codes for the representation of names of countries and their subdivisions — Part 1: Country codes. Identical to EDIFACT codes 3207*

ISO 3166-2, *Codes for the representation of names of countries and their subdivisions — Part 2: Country subdivision code*

ISO 6346, *Freight containers — Coding, identification and marking*

ISO 6709, *Standard representation of geographic point location by coordinates*

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

ISO 9711-1, *Freight containers — Information related to containers on board vessels — Part 1: Bay plan system*

ISO/IEC 10646, *Information technology — Universal Coded Character Set (UCS)*

ISO/IEC 19501, *Information technology — Open Distributed Processing — Unified Modeling Language (UML) Version 1.4.2*

UNECE R16, (UNECE Recommendation No. 16), Codes for Trade and Transport Locations

UNECE R20, (UNECE Recommendation No. 20), Codes for Units of Measure Used in International Trade

UNECE R21, (UNECE Recommendation No. 21), Codes for Passengers, Types of Cargo, Packages and Packaging Materials (with Complementary Codes for Package Names)

UNECE R28, UNECE Recommendation No. 28, Codes for Types of Means of Transport

CCL, UN/CEFACT CCL version 08A, Data model description of UN/CEFACT's Core Component Library

UNTDD *United Nations Directories for Electronic Data Interchange for Administration, Commerce and Transport*. This is available as Part 5 on <https://www.unece.org/cefact/edifact/welcome.html>

WCO HS, World Customs Organization, WCO HS, Harmonized Commodity Description and Coding System

CODE BLU IMO Assembly Resolution A.862 (20), *Code of Practice for the Safe Loading and Unloading of Bulk Carriers*, Adopted on 27 November 1997.

CONVENTION FAL, Convention on Facilitation of International Maritime Traffic (FAL), Adoption: 9 April 1965; Entry into force: 5 March 1967 (As amended)

COLREG, Convention on the International Regulations for Preventing Collisions at Sea (COLREG), 1972 as amended, IMO

CODE IBC, International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk.

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CODE IMSBC, International Maritime Solid Bulk Cargoes Code

CODE IMDG, International Maritime Dangerous Goods Code. (IMDG Code).

CODE INF International Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Wastes on Board Ships, INF Code), 2001, IMO

CODE ISM International Safety Management, ISM Code), 2002, IMO

CODE ISPS International Ship and Port Facility Security Code, ISPS Code), 2003, IMO

MARPOL, International Convention for the Prevention of Pollution from Ships (MARPOL), 1973, as modified by the Protocol of 1978 relating thereto, IMO

SOLAS, International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended, IMO

CONVENTION T., International Convention on Tonnage Measurement of Ships, 1969, IMO

A.851(20), IMO Assembly Resolution A.851(20), General Principles for Ship Reporting Systems and Ship Reporting Requirements, including Guidelines for Reporting Incidents involving Dangerous Goods, Harmful Substances and/or Marine Pollutants, Adopted on 27 November 1997 (see also IMO MEPC Resolution MEPC.138 (53).

A.852(20), IMO Assembly Resolution A.852(20), Guidelines for a structure of an integrated system of contingency planning for shipboard emergencies. Adopted November 1997.

A.960(23), IMO Resolution A.960(23), Recommendations on Training and Certification and on Operational Procedures for Maritime Pilots other than Deep-Sea Pilots

COMPENDIUM FAL, IMO Compendium on Facilitation and Electronic Business, FAL.5/Circ.41, 16 May 2019.

FAL, 2/Circ.131, FAL.2/Circ.131, MEPC.1/Circ.873, MSC.1/Circ.1586, LEG.2/Circ.319 7, Revised List of Certificates and Documents Required to be Carried on Board Ships, 19 July 2017.

MEPC, 138 (53), MEPC Resolution 138(53), Amendments to the General Principles for Ship Reporting Systems and Ship Reporting Requirements, Including Guidelines for Reporting Incidents Involving Dangerous Goods, Harmful Substances and/or Marine Pollutants (Resolution A.851(20)), IMO, Adopted on 22 July 2005.

MEPC, 1/Circ.644, Standard Format for the Advance Notification Form for Waste Delivery of Port Reception Facilities.

MEPC, 1/Circ.834/Rev.1, Consolidated Guidance for Port Reception Facility Providers and Users, IMO, 1 March 2018.

MSC/Circ, 1056, MEPC/Circ.399, Guidelines for Ships Operating in Arctic Ice-Covered Waters

MSC 1/Circ.1160, Manual on Loading and Unloading of Solid Bulk Cargoes for Terminal Representatives

MSC 1/Circ. 1305, Guidance to Masters, Companies and Duly Authorized Officers on the Requirements Relating to the Submission of Security-Related Information Prior to the Entry of a Ship Into Port

Additional non-normative references are referred to by a number in square brackets and listed in the Bibliography at the end of the document.

3 Terms, definitions, and abbreviated terms

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:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1 Terms and definitions

3.1.1

character

atomic unit of text as specified by ISO/IEC 10646:2017

Note 1 to entry: Legal characters include: tab, carriage return, line feed, and the legal characters of The Unicode Standard and ISO/IEC 10646. The editions cited in this part of ISO 28005 were current at the time of publication; new characters could be added to The Unicode Standard or ISO/IEC 10646 by amendments or future editions.

3.1.2

core data element

data object of a type defined in [Clause 7](#) of this part of ISO 28005.

Note 1 to entry: The core data element will be represented as the contents between XML start and end tags, where the tags have the same name as the core data type with the trailing string "Type" omitted.

3.1.3

core data type

data type defined in [Clause 7](#) of this part of ISO 28005:2020.

Note 1 to entry: All core data types will have a trailing "Type" or "ContentType" in their name which will be removed when the data type is instantiated as a core data element.

3.1.4**data type**

core data type (3.1.3) or another data type defined in [Clauses 5](#) or [6](#) of this part of ISO 28005:2020.

Note 1 to entry: All data types will have a name ending with "Type".

3.1.5**electronic port clearance, EPC**

process of exchanging information between the ship and its agent and various parties on shore to allow the ship clearance to enter port and berth

Note 1 to entry: EPC does not necessarily include customs clearance of goods that are imported or exported.

3.1.6**Facility**

In this standard, facility is normally used in the meaning implied in the ISPS code, i.e. a port or a part of a port that is individually secured according to the ISPS code.

3.1.7**IMO Reference Data Model**

This is part of the FAL Compendium. More details on the IMO FAL Reference Data Model and Data Element List can be found at <http://www.imo.org/en/OurWork/Facilitation/Pages/IMOCompendium.aspx>.

3.1.8**leg**

part of a voyage between a departure port and an arrival port without any intervening port calls

3.1.9**oil-bulk-ore carrier, OBO**

ship whose design is similar to a conventional bulk carrier but that is equipped with pipelines, pumps and an inert gas plant so as to enable the carriage of oil cargoes in designated spaces

3.1.10**voyage**

sailing of the ship from an initial departure port to a final arrival port with or without a number of intervening port calls

Note 1 to entry: What constitutes a voyage is defined by the ship's operator or its owner.

Note 2 to entry: A voyage will consist of one or more *legs* (3.1.6).

3.1.11**XML schema**

definition of the structure of an XML document, written in the XML schema language (XSD)

Note 1 to entry: The XML schema language is in itself a valid XML structure [5], [6].

3.2 Abbreviated terms**3.2.1****BLU**

Bulk loading and unloading code (BLU Code).

3.2.2**DG**

Dangerous goods. The term "harmful and noxious substances" is also sometimes used instead of "dangerous goods."

3.2.3**HS**

World Customs Organization's Harmonized System (WCO Harmonized System).