



SLOVENSKI STANDARD
SIST-TS CEN ISO/TS 17262:2003
01-oktober-2003

Glavni namen tega standarda je opredeliti in definirati shemo za avtomatsko identifikacijo vozil in opreme v intermodalnem prevozu blaga. Standard opisuje tudi strukturo podatkovnih baz in shemo numeriranja vozil in opreme. Standard je namenjen uporabi v avtomatskih sistemih za identifikacijo vozil in opreme v intermodalnem prevozu blaga.

Automatic vehicle and equipment identification - Intermodal goods transport - Numbering and data structures (ISO/TS 17262:2003)

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Identification automatique des véhicules et des équipements - Transport intermodal de marchandises - Structures de données et numérotation (ISO/TS 17262:2003)

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Ta slovenski standard je istoveten z: CEN ISO/TS 17262:2003

ICS:

03.220.20	Cestni transport	Road transport
35.240.60	Uporabniške rešitve IT v transportu in trgovini	IT applications in transport and trade

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TECHNICAL SPECIFICATION
SPÉCIFICATION TECHNIQUE
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CEN ISO/TS 17262

June 2003

ICS 35.240.60

English version

Automatic vehicle and equipment identification – Intermodal
goods transport – Numbering and data structures (ISO/TS
17262:2003)

Identification automatique des véhicules et des
équipements – Transport intermodal de marchandises –
Structures de données et numérotation (ISO/TS
17262:2003)

This Technical Specification (CEN/TS) was approved by CEN on 25 Novembre 2002 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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



EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document (CEN ISO/TS 17262:2003) has been prepared by Technical Committee CEN/TC 278, "Road Transport and Traffic Telematics", the secretariat of which is held by NEN, in collaboration with Technical Committee ISO/TC 204, "Transport information and control systems".

This is the second part of a series of Technical Specifications defining Intermodal Goods Transport for AVI/AEI, and is the result from CEN/TC278 Work Item 00278088. The following parts form a series of Standards for AVI/AEI in intermodal goods transport AVI/AEI:

CEN ISO/TS 17261	Architecture and terminology (under preparation)
CEN ISO/TS 17262	Numbering and data structures
CEN ISO/TS 17263	System parameters
CEN ISO/TS 17264	AVI/AEI interfaces (under preparation)

Annex A forms normative part of this Technical Specification. Annexes B and C are informative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovak Republic, Spain, Sweden, Switzerland and the United Kingdom.

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CEN ISO/TS 17262:2003 (E)**Introduction**

Within the context of RTTT/TICS, intermodal goods transport AVI/AEI systems have the specific objective of achieving a unique or unambiguous positive identification of equipment, and to make that identification automatically. This Technical Specification defines data to achieve this particular objective.

This Technical Specification specifies data that enable future upward integration and expansion for intermodal goods transport AVI/AEI systems. The standard is thus designed to be flexible and enabling rather than prescriptive.

For the definition of data, Abstract Syntax Notation One (ASN.1) is applied. This usage provides maximum interoperability and conformance to existing Standards within the RTTT/TICS sector.

Readers who want to familiarise themselves with ASN.1 are advised to read ANNEX C before reading the main body of this Standard. Readers may also read ISO/IEC 8824, ISO/IEC 8825 and other publications on ASN.1.

NOTE: An normative annex on data modelling may be added in the final version

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1 Scope

This Technical Specification defines generic numbering and data structures for unambiguous identification of equipment used for Intermodal goods transport. These data are known as Intermodal Goods Transport Numbering and Data Structures.

This Technical Specification defines data independently of the data carrier. The modelling of data is based on Abstract Syntax Notation One (ASN.1) as defined in ISO/IEC 8824. This Technical Specification excludes any physical aspects such as interfaces, dimensions etc. Data that form part of transmission or storage protocols (headers, frame markers and checksums) are excluded.

Data defined in this Technical Specification require a system for control and distribution of number series independent of the different AVI/AEI systems. This is required in order to avoid ambiguity and to provide the necessary level of security where appropriate. For this reason the registration authority defined in ENV ISO 14816 applies for this Technical Specification.

This Technical Specification enables the use of optimised encoding schemes such as ASN.1 Basic Packed Encoding Rules (PER).

This Technical Specification provides interoperability, not only between simple AVI/AEI and more complex RTTT/TICS functions, but also with pre-existing Standards such as container (ISO 10374). Specifications for protecting against changes, classifying and qualifying security aspects of the data are out of scope of this Technical Specification.

This Technical Specification relates to AVI/AEI units, but not to smaller containers and units being transported. For smaller units (pallet loads, trays, parcels etc.) please refer to ISO/IEC SC31 standards, ISO 18000 series. The Numbering Structure defined in this Standard is designed to enable combinations with the data definitions from ISO 18000 series. This combination will be covered in CEN ISO/TS 17264 (under preparation).

This Technical Specification provides the capability to carry application data, associated with the identification, to be carried as part of the AVI/AEI message. Within this Technical Specification this is provided as a "black box" facility. The definition of the structure and contents of such messages are outside the scope of this Technical Specification (examples will be shown in CEN ISO/TS 17264).

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CEN ISO/TS 17262:2003 (E)

2 Normative references

This Technical Specification incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this Technical Specification only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 13044		Swap Bodies - Coding, Identification and Marking
ISO/IEC 8824-1		Information processing systems - Open Systems Interconnection - Specification of abstract syntax notation one (ASN.1) - Part 1: Specification of the Basic Notation
ISO/IEC 8824-2		Information processing systems - Open Systems Interconnection - Specification of abstract syntax notation one (ASN.1) - Part 2: Information Object Specification
ISO/IEC 8824-3		Information processing systems - Open Systems Interconnection - Specification of abstract syntax notation one (ASN.1) - Part 3: Constraint Specification
ISO/IEC 8824-4		Information processing systems - Open Systems Interconnection - Specification of abstract syntax notation one (ASN.1) - Part 4: Parameterisation of the ASN.1 Specifications
ISO 10374		Freight containers - Coding, identification and marking
ENV ISO 14816	2000	Road Traffic and Transport Telematics - Automatic Vehicle and Equipment Identification - Numbering and Data Structures (ISO/TR 14816:2000)
ENV ISO 14906	1998	Road Traffic and Transport Telematics - Electronic Fee Collection - Application Interface Definition Using DSRC (ISO/TR 14906:1998)

3 Terms and definitions

For the purposes of this Technical Specification, the following terms and definitions apply:

3.1

AEI Manager

component, which receives data from AEI Readers and compares it with information in a data base. An ok or error message is generated and transferred to the Message Display component.

3.2

AEI reader

complete equipment even if it consists of more than one components required to interrogate, receive and interpret the data in the TAG in order to present the identification.

3.3

AEI System

AEI application in a RTTT/TICS system either as a stand-alone system or as part of a RTTT/TICS application.

3.4

Component

type, class or any other work-product that has been specifically engineered to be reusable. (TAG, Reader, AEI Manager)

3.5

Intermodal Transport

movement of goods in one and the same loading unit or vehicle that uses successively several modes of transport without handling of the goods themselves when changing modes.

3.6

Load Unit

cargo transportation unit, which may be loaded on a transport means.

Synonym: Package, Container

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3.7

Message Display

receives data from AEI Manager, and display the data on a variable message sign to the driver.

3.8

TAG

equipment fitted to the unit, vehicle or item to be identified and containing the unambiguous identification, and if required some further data. For special purposes the TAG can be installed in a fixed position with a mobile reader.

3.9

Terminal Monitoring Point

point administered by the AEI Manager where the monitoring of transport objects is performed. Synonym: Terminal Access Control Point.

3.10

Transport Means

vehicle used for the transport of goods, e.g. vessel, train, truck.

3.11

Transport Object

transport means, load unit or goods item.

CEN ISO/TS 17262:2003 (E)**4 Symbols and abbreviations**

The following abbreviations are used in this Technical Specification:

4.1**AEI**

Automatic Equipment Identification

4.2**ASN.1**

Abstract Syntax Notation number One

4.3**DSRC**

Dedicated Short Range Communication

4.4**RTTT**

Road Transport and Traffic Telematics (CEN/TC 278)

4.5**TICS**

Transport Information and Control Systems (ISO/TC 204)

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5 Components of AVI/AEI for intermodal goods transport

The components, which are involved in the AVI/AEI Intermodal goods transport are the AEI manager, AEI reader, Message Display, Transport Object/TAG. The overview of components are illustrated in figure 1:

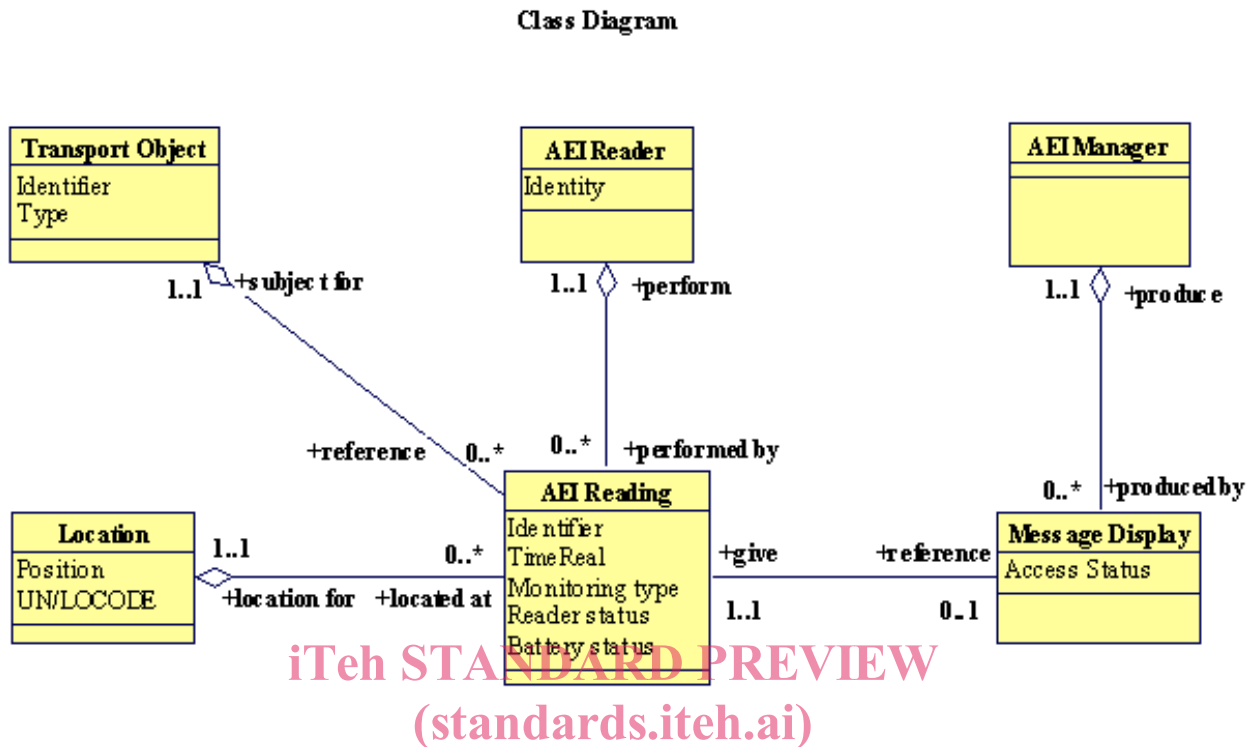


Figure 1 — Components of AVI/AEI for intermodal goods transport

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