NSAI
Standards

Irish Standard
I.S. CEN ISO TS 17261:2005

Intelligent transport systems - Automatic vehicle and equipment identification - Intermodal good transport architecture and terminology (ISO/TS 17261:2005)

I.S. CEN ISO TS 17261:2005

Incorporating amendments/corrigenda issued since publication:
CEN ISO/TS 17261:2005/AC:2006

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces:

This document is based on:
CEN ISO/TS 17261:2005

Published:
15 February, 2005

This document was published under the authority of the NSAI and comes into effect on:
3 June, 2005

ICS number:
35.240.60
03.220.01

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

CEN ISO/TS 17261:2005/AC

April 2006
Avril 2006
April 2006

ICS 35.240.60; 03.220.01

English version
Version Française
Deutsche Fassung

Intelligent transport systems - Automatic vehicle and equipment
identification - Intermodal good transport architecture and terminology
(ISO/TS 17261:2005/Cor.1:2005)

Systèmes intelligents de transport -
Identification automatique des véhicules et
de leur équipement - Architecture et
terminologie du transport intermodal de
marchandises (ISO/TS
17261:2005/Cor.1:2005)

Automatische Identifizierung von
Fahrzeugen und Ausrüstungen -
Kombinierter Güterverkehr - Architektur und
Bennenung (ISO/TS
17261:2005/Cor.1:2005)

This corrigendum becomes effective on 12 April 2006 for incorporation in the three official language versions of the EN.

Ce corrigendum prendra effet le 12 avril 2006 pour incorporation dans les trois versions linguistiques officielles de la EN.

Die Berichtigung tritt am 12.April 2006 zur Einarbeitung in die drei offiziellen Sprachfassungen der EN in Kraft.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36   B-1050 Brussels

Ref. No.:CEN ISO/TS 17261:2005/AC:2006 D/E/F

English version

Endorsement Notice

The text of ISO/TS 17261:2005/Cor.1:2005 has been approved by CEN as CEN ISO/TS 17261:2005/AC:2006 without any modifications.

Version française

Notice d'entérinement

Le texte de l'ISO/TS 17261:2005/Cor.1:2005 a été approuvé par le CEN comme CEN ISO/TS 17261:2005/AC:2006 sans aucune modification.

Deutsche Fassung

Anerkennungsnotiz

Der Text von ISO/TS 17261:2005/Cor.1:2005 wurde vom CEN als CEN ISO/TS 17261:2005/AC:2006 ohne irgendeine Abänderung genehmigt.

I.S. CEN ISO/TS 17261:2005
TECHNICAL SPECIFICATION ISO/TS 17261:2005
TECHNICAL CORRIGENDUM 1

Published 2005-09-15

Intelligent transport systems — Automatic vehicle and equipment identification — Intermodal goods transport architecture and terminology

TECHNICAL CORRIGENDUM 1

Systèmes intelligents de transport — Identification automatique des véhicules et de leur équipement — Architecture et terminologie du transport intermodal de marchandises

RECTIFICATIF TECHNIQUE 1

Technical Corrigendum 1 to ISO TS 17261:2005 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 278, *Road transport and traffic telematics,* in collaboration with Technical Committee ISO/TC 204, *Intelligent transport systems.*

Page 2, Clause 2

Replace the Normative reference:

CEN ISO/TS 17262, *AVI/AEI Intermodal goods transport: System parameters*

with:

CEN ISO/TS 17263, *Automatic vehicle and equipment identification — Intermodal goods transport — System parameters*

ICS 03.220.01; 35.240.60   **Ref. No. ISO/TS 17261:2005/Cor.1:2005(E)**

Published in Switzerland

I.S. CEN ISO/TS 17261:2005

This page is intentionally left BLANK.

I.S. CEN ISO/TS 17261:2005

I.S. CEN ISO/TS 17261:2005

TECHNICAL SPECIFICATION

CEN ISO/TS 17261

SPÉCIFICATION TECHNIQUE

TECHNISCHE SPEZIFIKATION

May 2005

English version

Intelligent transport systems - Automatic vehicle and equipment identification - Intermodal good transport architecture and terminology (ISO/TS 17261:2005)

Systèmes intelligents de transport - Identification automatique des véhicules et de leur équipement - Architecture et terminologie du transport intermodal de marchandises (ISO/TS 17261:2005)

Automatische Identifizierung von Fahrzeugen und Ausrüstungen - Kombinierter Güterverkehr - Architektur und Bennenung (ISO/TS 17261:2005)

This Technical Specification (CEN/TS) was approved by CEN on 28 September 2004 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 promptly at national level in an appropriate form. 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36   B-1050 Brussels

Ref. No. CEN ISO/TS 17261:2005: E

CEN ISO/TS 17261:2005 (E)

Foreword

This document (CEN ISO/TS 17261:2005) 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".

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

I.S. CEN ISO/TS 17261:2005

TECHNICAL SPECIFICATION

ISO/TS 17261

First edition
2005-05-15

Intelligent transport systems — Automatic vehicle and equipment identification — Intermodal goods transport architecture and terminology

Systèmes intelligents de transport — Identification automatique des véhicules et de leur équipement — Architecture et terminologie du transport intermodal de marchandises

Reference number
ISO/TS 17261:2005(E)

© ISO 2005

ISO/TS 17261:2005(E)

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

Contents

Page

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 normative 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 17261 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 278, Road transport and traffic telematics, in collaboration with Technical Committee ISO/TC 204, *Intelligent transport systems*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

Introduction

This Technical Specification prescribes the overall parameters within which these subsidiary Standards and Technical Specifications are constructed. The Architecture description defined in this document is presented in a form consistent with the recommendations of ISO/TC 204/WG1, and is supported by that working group, and is a consistent extension to EN ISO 14814 (AVI Reference architectures and terminology).

EN ISO 14814 provides an architecture context for AVI/AEI for road transport. CEN ISO/TS 17261 (this Technical Specification) extends this architecture context to include intermodal and multimodal movements.

This document is part of a series of Standards defining AVI/AEI in the Intelligent Transport Systems/Road Transport and Traffic Telematics (ITS/RTTT) environment. The following parts have been/shall also be issued from CEN TC 278/WG12 to form a family of Standards for the Sector.

EN ISO 14814   AVI/AEI Reference architectures and terminology

EN ISO 14816   AVI/AEI Numbering and data structures

EN ISO 14815   AVI/AEI System specification

CEN ISO/TS 17261   AVI/AEI Intermodal goods transport reference architectures and terminology.

CEN ISO/TS 17262   AVI/AEI Intermodal goods transport: Numbering and data structures

CEN ISO/TS 17263   AVI/AEI Intermodal goods transport: System parameters

CEN ISO/TS 17264   AVI/AEI Intermodal goods transport: Interface requirements

An AVI/AEI interaction in an ITS/RTTT environment comprises an identification of On-Board Equipment (OBE) by a reader/interrogator and may transfer additional data.

The data component in an ITS/RTTT environment provides the basis for unambiguous identification of the OBE, and may also share a medium for a bi-directional interactive exchange of data between the host and OBE and to other equipment (such as smart cards etc.).

The principles of data presentation determined in CEN ISO/TS 17262 have been adopted to provide an interoperable architecture within a Standard framework. The use of Abstract Syntax Notation One (ASN.1) PER is therefore an integral part of the data architecture determined in this Technical Specification.

The numbering and data structure shall be capable of operation both by read/write devices, and by read only devices where there is no requirement (and sometimes no possibility) to write to the OBE.

A key feature of the structure is to provide interoperability of data constructs.

Within the ITS/RTTT sector, applications may range from simple vehicle and equipment identification to complex International systems.

The reference architecture model and the data construct schemes described in this family of Standards/Technical Specifications extend the approved AVI conceptual architecture to provide a comprehensive conceptual and logical system architecture to describe the relationships and functionality for a wide range of media so that the currency of the Technical Specification shall remain good for both existing and future technologies. The Technical Specification recognises that there are existing AVI/AEI applications and provides a means of supporting such data constructs within the Technical Specification.

In many cases it is necessary or desirable to use one air carrier frequency and protocol, but this is not always possible nor even desirable in all situations.

ISO/TS 17261:2005(E)

In accordance with the resolutions of ISO TC 204 and CEN TC 278 the use of Abstract Syntax Notation One (ASN.1) from ISO 8824 as a data definition structure is adopted. Its usage provides maximum interoperability and conformance to existing ITS/RTTT and related Standards and Technical Specifications

1   Scope

This Technical Specification describes the conceptual and logical architecture for automatic vehicle and Equipment identification (AVI/AEI) and supporting services in an intermodal/multimodal environment.

This Technical Specification presents a high level view of AEI intermodal and multimodal system Architecture. The Technical Specification describes the key sub systems, their associated interfaces and interactions and how they fit into System wide functions such as Management, Security and Information Flow.

The Architecture is product independent, e.g. individual modules within sub systems e.g. the data tag module within the data capture sub system will be described in terms of system parameters not in terms of a defined or named product specification.

The Technical Specification identifies the context of intermodal/multimodal AEI within the overall AVI/AEI context and key external inter-dependencies and interfaces to the intermodal/multimodal Sector IT infrastructure. These include interfaces to the external and internal users of the Intermodal/multimodal System services and their associated IT systems, interfaces to Intermodal/multimodal management systems, existing Intermodal/multimodal networks and System Operations, and specifically interfaces to item identification and the domain of ISO/IEC SC 31, item logistics Standards. As an architecture it is designed to be complementary and interlocking to that domain.

NOTE   Iin addition to the work of this Technical Specification, the reader should be aware that there are a number of ongoing architecture and terminology activities in a number of organizations such as the UNCEFACT and ISO/TC 154 that relate to the movement of intermodal/multimodal goods. In respect of the architecture concepts described in this Technical Specification it is important that there be ongoing collaboration between the ITS community and such bodies such that semantic interoperability and syntactic coherence may be attained at information exchanges intermodally.

This Technical Specification relates to AVI/AEI units, but not to smaller containers and items being transported. Whilst the architecture described within this Technical Specification shows the inter-relationship to the item identification domain (see Annex A), for smaller items (pallet loads, trays, parcels etc.), Standardization will be undertaken by ISO/IEC JTC 1 SC 31. Supporting Standards developed by ISO/TC 204 will be limited to vehicle, trailer and AVI/AEI unit identification, whereas ISO/SC 31 Standards will work from units of pallet (and equivalent) size down to item level.

This Technical Specification is intended to be complementary and consistent with the work of ISO/TC 104 (ISO Containers).

This Specification extends the conceptual and communication AVI architecture determined in EN ISO 14814 and is neither frequency nor air interface protocol specific. It provides maximum interoperability, has a high population capability, and provides the possibility of upwards migration to more capable systems.

This Technical Specification does not include the air interface nor any implementation aspect, solely the reference architectures. Subsequent Standards shall define data structures for general AVI/AEI and for specific sectors of application.

NOTE   This Technical Specification presents a number of views to describe the intermodal/multimodal environment. Other organizations, such as UN/CEFACT, and other ITS Standards, may use views that are based on different methodologies.

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).

ISO/IEC 8824-1:1995, *Information technology — Abstract Syntax Notation One (ASN.1) — Part 1: Specification of basic notation*, 1995-10-15

This is a free preview. Purchase the entire publication at the link below:

Product Page