SLOVENSKI STANDARD
SIST-TS CEN/TS 15213-2:2006

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Cestna transportna in prometna telematika - Sistemi za odkrivanje ukradenih vozil – 2. del: Elementi splošnega poročila o stanju

Road transport and traffic telematics - After-theft systems for the recovery of stolen vehicles - Part 2: Common status message elements

Straßenverkehrstelematik - Systeme zum Wiederauffinden gestohlener Fahrzeuge - Teil 2: Bestandteile allgemeiner Statusmitteilungen

Application télématique pour le transport routier et la circulation - Systemes intervenant apres un vol pour la récupération des véhicules volés - Partie 2: Eléments de messages d'état communs

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Road transport and traffic telematics - After-theft systems for the recovery of stolen vehicles - Part 2: Common status message elements

Application télématique pour le transport routier et la circulation - Systèmes intervenant après un vol pour la récupération des véhicules volés - Partie 2: Eléments de messages d'état communs

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Foreword

This document (CEN/TS 15213-2:2006) has been prepared by Technical Committee CEN/TC 278 “Road transport and traffic telematics”, the secretariat of which is held by NEN.

CEN/TS 15213 “*Road transport and traffic telematics — After-theft systems for the recovery of stolen vehicles*” consists of the following parts:

Part 1: Reference architecture and terminology

Part 2: Common status message elements

Part 3: Interface and system requirements in terms of short range communication system

Part 4: Interface and system requirements in terms of long range communication system

Part 5: Messaging interface

Part 6: Test procedures

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this CEN 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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

This document was developed by CEN/TC 278 "Road transport and traffic telematics" Working Group 14 (WG 14) on the subject of After Theft Systems for Vehicle Recovery (ATSVR).

WG 14 comprised representatives and experts from police, insurance associations (CEA), car manufacturers, transport associations, vehicle rental associations and ATSVR system and product providers. The work was also in cooperation with Europol and the European Police Cooperation Working Group (EPCWG).

This document was developed to define an architecture within guidelines from CEN/TC 278 through which a level of interoperability can be achieved between Systems Operating Centres (SOC) and Law Enforcement Agencies (LEA), both nationally and internationally.

This will provide minimum standards of information and assurance to users as to the functionality of systems, thereby enabling the recovery of vehicles, detection of offenders and a reduction in crime.

This document should be read in conjunction with CEN/TS 15213-1 which provides the preliminary framework for ATSVR concepts.

1 Scope

This document specifies the basic structure of the message elements, or items of information, that are put together to form the common message sets used in exchanging information in an After Theft System for Vehicle Recovery.

Parts 3, 4 and 5 of CEN/TS 15213 will define the content of these messages. The design is such that all currently identified information can be included in an unambiguous format, while allowing for additional items to be included should they either be required in the future or become available in the future.

These message elements can also be referenced in a unique manner and described in plain language for transmission by voice, fax or e-mail. Similarly the data can be encoded in XML language for electronic transmission.

Standards for Automatic Vehicle Identification (AVI) and Automatic Equipment Identification (AEI) are being developed by CEN/TC 278 WG 12 in parallel with EN ISO 14814. This ATSVR standard does not prejudice that work and does not seek to establish parameters for future AVI/AEI standards. DSRC and AVI standards are seen as the basic technology blocks for types of short-range ATSVR systems.

This part of CEN/TS 15213 aims to identify the main elements and illustrate the data concepts and way forward.

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.

CEN/TS 15213-1:2005, *Road transport and traffic telematics – After-theft systems for the recovery of stolen vehicles – Part 1: Reference architecture and terminology*

EN ISO 3166-1, *Codes for the representation of names of countries and their subdivisions — Part 1: Country codes (ISO 3166-1:1997)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in CEN/TS 15213-1:2005 apply.

4 Numerical notations

Numerical notations are represented as follows:

— Decimal (“normal”) notation will have no subscript

EXAMPLE 127

— Hexadecimal numbers will be denoted by the subscript 16

EXAMPLE $7F_{16}$

— Binary numbers will be denoted by the subscript 2

EXAMPLE 011111_2

Characters will be encoded in ASCII and represented as follows:

— Characters will have no subscript or hyphen

EXAMPLE ABC59MNO

5 Abbreviations

5.1
AEI
Automatic Equipment Identification

5.2
ASCII
American Standard Code for Information Interchange

5.3
ATSVR
After Theft System for Vehicle Recovery

5.4
AVI
Automatic Vehicle Identification

5.5
RTTT
Road Traffic and Transport Telematics

See also CEN/TS 15213-1.

6 Requirements

6.1 General requirements

The coding structure defined in this document is an enabling structure. It is designed to allow combinations of data elements to be used in composite data structures. It is designed to allow as much interoperability of the data elements as possible. Data elements may be of any length and may be combined in many ways.

This document recognises that there will be systems of different capability that should be interoperable, even though the systems may be significantly different. Even where information is obtained by a proprietary system, the data, once collected, is held in a common interoperable format and so may be accurately and confidently used.

The document has been designed according to the principles of ISO/IEC 8825-2. The encoding rules enable the chaining of multiple data elements to build complex data structures

The structure is built from a series of data elements that identify:

a) First the Sector Identifier indicating that it is an RTTT data structure.

b) Second the RTTT Application Identifier.

c) Third the Coding structure Identifier.

d) Fourth (et seq.) the data elements.

By adopting this document, some degree of compatibility can be achieved with AVI and AEI existing standards.

The overall coding structure shall:

— be unambiguous and flexible enough to include relevant numbering structures;

— follow relevant standards;

— provide an exact coding of the data elements;

— be extendable to enable future expansion;

— be able to accommodate private structures.

6.2 Data structure

This subclause refers to a future general ASN.1 coding structure standard being developed by CEN/TC 278. When this document is available, this subclause will be replaced.

The schematic of the ASN.1 Message is:

RTTT Sector Identifier	Length	RTTT Application Identifier	Length	Coding structure Identifier	Length	CS Data Field

EXAMPLE 1 For a data content field of 6 bytes or octets

RTTT sector Identifier *(to be found)*	nm_{16}
Length, number of bytes following this length field e.g. 11	$0B_{16}$
RTTT Application Identifier *(to be found)*	pq_{16}
Length, number of bytes following this length field e.g. 09	09_{16}
Coding structure Identifier e.g. 1	41_{16}
Length, number of bytes following this length field e.g. 07	07_{16}
Data content – 7 bytes	

The length field defines the length of the rest of the message, excluding the length field itself.

In the example below the data contents have three data elements: country code, issuer and unique number.

NOTE Each element does not have to be a multiple of 8 bits, although the Data content is a multiple of 8 bits.

EXAMPLE 2

Country code	2 octets	e.g. GB
Issuer	14 bits	e.g. $110F_{16}$
Unique number	32 bits	e.g. 12345678_{16}
Total	56 bits or 7 bytes.	

7 General rules for data elements

7.1 General points

This section defines some general codes and rules used by the data elements section, these codes and rules have been constructed from existing standards where available. Each of the data elements will be given a unique reference.

7.2 Country code

Country code values shall be assigned according to EN ISO 3166-1.

NOTE An updated list of country codes can be found at http://www.iso.org/iso/en/prods-services/iso3166ma/02iso-3166-code-lists/index.html .

7.3 Alphabet Indicator

This is the alphabet used in the rest of the message or until another alphabet indicator is read. This is referenced in EN ISO 14816.

Definition	Decimal Code	Hex Code
latinAlphabetNo1	1	1_{16}
latinAlphabetNo2	2	2_{16}
latinAlphabetNo3	3	3_{16}
latinAlphabetNo4	4	4_{16}
latincyrillicAlphabet	5	5_{16}
latinArabicAlphabet	6	6_{16}
latinGreecAlphabet	7	7_{16}
latinHebrewAlphabet	8	8_{16}
latinAlphabetNo5	9	9_{16}
latinAlphabetNo6	10	A_{16}
two OctetBMP	128	80_{16}
fourOctetCanonical	129	81_{16}

Default latinAlphabetNo1

7.4 Date

The date element will be fixed format of eight octets of numbers coded as ASCII characters. It may require a time zone parameter when used, depending on context.

YYYYMMDD

EXAMPLE 20011206 for the 6th of December 2001

7.5 Time

Time will default to UTC and be of twelve octets coded as ASCII characters. This format allows sorting by date. The Time data element requires time zone information.

YYYYMMDDhhmm

EXAMPLE 200112060958 for 09:58 on the 6th of December 2001

7.6 Time zone

The time zone will be represented by the hours difference from UTC. The first octet will be the sign “+” or “-“ and the second and third will be the hours difference.

SZZ

EXAMPLE +01 for winter time in Europe.