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Road transport and traffic telematics — Automatic vehicle and equipment identification — Numbering and data structure

AMENDMENT 1

Télématique du transport routier et de la circulation routière — Identification automatique des véhicules et des équipements — Codification et structure des données

AMENDEMENT 1

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This document was prepared by Technical Committee ISO/TC 204, *Intelligent transport systems*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Road transport and traffic telematics — Automatic vehicle and equipment identification — Numbering and data structure

AMENDMENT 1

Page v, Introduction

Delete

> "...to read ANNEX C before reading the main body of this International Standard. Readers are also advised..."

in first paragraph after bullet list.

Page 1, Scope 1.1

Delete

> ", ISO/IEC 8825-1 and ISO/IEC 8825-2..."

in fourth paragraph.

Page 2, Normative references

Delete

> ISO/IEC 8825-1, *Information technology — ASN.1 encoding rules — Part 1: Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER) and Distinguished Encoding Rules (DER)*

Page 2, Normative references

Move

> ISO/IEC 8825-2, *Information technology — ASN.1 encoding rules — Part 2: Specification of Packed Encoding Rules (PER)*

to Bibliography.

Page 4, 4.2

Delete

> ", ISO/IEC 8825-1, ISO/IEC 8825-2 and ISO/IEC 8825-3..."

in paragraph before last paragraph.

Page 4, 4.2

Delete last sentence in last paragraph.

"(See examples in Annex C.) "

Page 4, 4.3

Delete

", ISO/IEC 8825-1, ISO/IEC 8825-2 and ISO/IEC 8825-3..."

Page 4, 4.4

Replace first sentence in last paragraph

"The examples given in the remainder of this International Standard assume the use of ASN.1 PER."

by the sentence

"The examples given in the remainder of this document assume the use of ASN.1 PER unaligned."

Page 4, 4.4

Delete last sentence.

"See Annex C for implementation examples."

Page 5, 4.6

In the second sentence delete.

" ...and Annex C."

Page 5

Replace Table 2 by the following one.

Table 2 — Minumum size of data elements

CSI	Length	Coding Structure Data Field			
1	7 Octets / 56 bits	Country Code	Issuer Identifier	Service Number	
		10	14	32	
2	6 Octets / 48 bits	Manufacturer Identifier	Service Number		
		16	32		
3	22 Octets / 176 bits	Start Time	Stop Time	Geographic Limit	Application Limit
		80	80	8	8
4	Variable	Country Code	Alphabet Indicator	Licence Plate Number	
		10	6	Not defined	
5	17 Octets /	Vehicle Identification (Chassis) Number	fill		

CSI	Length	Coding Structure Data Field		
	136 bits	127		9
6	0	Reserved for CEN/ISO		
		Not defined		
7	12 Octets / 96 bits	Freight Container Numbering		
		96		
8	N + 2 Octets	fill	Country Code	Tax Code
		6	10	N * 8

Page 6, NOTE 1

Add the following sentence at the end of NOTE 1.

"The symbol N refers to the number of characters in the abstract data structure, as defined by the application."

Page 6

Below NOTE 2 add the following NOTE 3.

NOTE 3 The term "fill" indicates bit fields used to achieve octet alignment. The bits are set to '0'b.

Page 6, 4.7.2.1

Delete the last paragraph.

"Operators who wish to provide additional data fields, of read only or read/write nature, can do so by adding additional ASN.1 identifier sets as described in Annex C."

Page 6, 4.7.2.2.2

Replace the last sentence

"For value assignment, please refer to: https://www.itsstandards.eu/14816-register."

by

"See Annex C for examples."

Page 7

Delete 4.8.2.1.

Page 7, 4.8.2.2.1

Replace content of 4.8.2.2.1 by

```
CS2::= SEQUENCE {
            manufacturerIdentifier   ManufacturerIdentifier,
            serviceNumber             ServiceNumber
        }
```

Page 7

Change clause numbering

4.8.2.2 to 4.8.2.1

4.8.2.2.1 to 4.8.2.2

4.8.2.2.2 to 4.8.3

4.8.2.2.3 to 4.8.4

Page 8

Delete 4.9.2.1.

Page 8, 4.9.2.2.2.

Replace first and second line by

```
StartTime::= AviEriDateTime
AviEriDateTime::= OCTET STRING (SIZE(10))  -- YYMMDDhhmm
```

The format is YYMMDDhhmm encoded according to ISO/IEC 8859-1.

Page 8, 4.9.2.3

Replace first and second line by

```
StopTime::= AviEriDateTime
```

The format is YYMMDDhhmm.

Page 8

Change clause numbering

4.9.2.1.1 to 4.9.2.1

4.9.2.2.2 to 4.9.2.2

Page 9, 4.9.2.3.1

Replace definition of `GeoGraphicalLimit`

by:

```
GeoGraphicalLimit::= BIT STRING {
  globalRestriction           (0),
  regionalRestriction         (1),
  nationalRestriction         (2),
  district                    (3),
  issuerCoverageRestriction   (4),
  reservedForCEN1             (5),
  reservedForCEN2             (6),
  issuerSpecificRestriction   (7)
  } (SIZE(8))
```

Page 9, 4.9.2.3.2

Replace definition of ServiceApplicationLimit

by:

```
ServiceApplicationLimit::= BIT STRING {
  notForPostpayment           (0),
  notForPrepayment            (1),
  notForVehicleaccess         (2),
  notForFleetcontrol          (3),
  issuerSpecificRestriction1  (4),
  issuerSpecificRestriction2  (5),
  issuerSpecificRestriction3  (6),
  issuerSpecificRestriction4  (7)
  } (SIZE(8))
```

Page 9, 4.9.2.3.2

Delete the NOTE.

Page 9

Change clause numbering

4.9.2.3.1 to 4.9.2.4

4.9.2.3.2 to 4.9.2.5

Page 10

Delete 4.10.2.1.

Page 10, 4.10.2.2.1

Replace definition of CS4 by

```
CS4::= SEQUENCE {
    countryCode             CountryCode,
    alphabetIndicator       AlphabetIndicator,
    licPlateNumber             LicPlateNumber
    }
```

Page 10

Delete heading 4.10.2.2.

Page 10

Change clause numbering

4.10.2.2.1 to 4.10.2.1

4.10.2.2.2 to 4.10.2.2

4.10.2.2.3 to 4.10.2.3

Page 10

Change clause numbering

4.10.2.2.4 to 4.10.2.4.

Page 11

Delete clause 4.11.2.1.

Page 12

Replace definition of CS5 by

```
CS5::= SEQUENCE{
   vin  VisibleString, -- 17 characters VIN
   fill   BIT STRING (SIZE(9)) -- set to '000000000'
   }
```

Page 12

Delete heading 4.11.2.2 and heading 4.11.2.

Page 12

Change clause numbering

4.11.2.2.1 to 4.11.3

Page 12

Delete clause 4.13.2.1.

Page 12

Delete headline 4.13.2.2.

Page 12

Change clause numbering

4.13.2.2.1 to 4.13.2.1.

Page 13, 4.13.2.2.2

Replace definition of FreightContainerData by

```
FreightContainerData::= SEQUENCE {
        OwnerCode           BIT STRING(SIZE(19)),     -- 19bits
        serialNumber        INTEGER(0 .. 1000000),    -- 20bits
        checkDigit          INTEGER(0 .. 10),         -- 4bits
        length              INTEGER(1 .. 2000),       -- 11bits
        height              INTEGER(1 .. 500),        -- 9bits
        width               INTEGER(200 .. 300),      -- 7bits
        containerTypeCode   INTEGER(0 .. 127),        -- 7bits
        maximumGrossMass    INTEGER(19 .. 500),       -- 9bits
        tareMass            INTEGER(0 .. 99),         -- 7bits
        fill                BIT STRING (SIZE(3))      -- set to '000'
        }
```

Page 13

Change clause numbering

4.13.2.2.2 to 4.13.2.2.

Page 13

Delete clause 4.14.2.1.

Page 13, 4.14.2.2.1

Replace definition of CS8 by

```
CS8::= SEQUENCE {
       fill          BIT STRING (SIZE(6)), -- set to '000000'
       countryCode   CountryCode,
       taxCode       TaxCode
}
```

Page 13

Delete heading 4.14.2.

Page 13

Change clause numbering

4.14.2.2 to 4.14.2

4.14.2.2.1 to 4.14.2.1

4.14.2.2.2 to 4.14.2.2

4.14.2.2.3 to 4.14.2.3

Page 21, A.3.1.5

Replace definition of TaxVignette by

```
TaxVignette::= SEQUENCE {
    cs8     CS8,
    cs3     CS3
    }
```

Page 24, Annex B

Replace the whole annex by the following one.

Annex B
(normative)

A summary of CS definitions

B.1 Overview

This annex contains the following ASN.1 module:

— **AVIAEINumberingAndDataStructures** {iso(1) standard(0) iso14816(14816) } in B.2.

In case the ASN.1 specifications given in this Annex are not compliant with illustrations or specifications provided elsewhere in this International standard, the specifications given in this Annex shall prevail.

The ASN.1 modules contained in this Annex will be published on http://standards.iso.org/iso/14816.

B.2 Module AVIAEINumberingAndDataStructure

This module specifies ASN.1 type definitions together with useful ASN.1 value definitions.

In all definitions

fill BIT STRING (SIZE(x))

each bit of the BIT STRING shall be set to the value '0'b.

```
AVIAEINumberingAndDataStructures {iso(1) standard(0) iso14816(14816) asnm1(1) version1(1)}
DEFINITIONS AUTOMATIC TAGS::= BEGIN

CS1::= SEQUENCE {
    countryCode                 CountryCode,
    issuerIdentifier            IssuerIdentifier,
    serviceNumber               ServiceNumber
    }

CS2::= SEQUENCE {
    manufacturerIdentifier      ManufacturerIdentifier,
    serviceNumber               ServiceNumber
    }

CS3::= SEQUENCE {
    startTime                   StartTime,
    stopTime                    StopTime,
    geographLimit               GeoGraphicalLimit,
    serviceAppLimit             ServiceApplicationLimit
    }

CS4::= SEQUENCE {
    countryCode                 CountryCode,
    alphabetIndicator           AlphabetIndicator,
    licPlateNumber              LicPlateNumber
    }

CS5::= CS5::= SEQUENCE{
    vin      VisibleString, -- 17 characters VIN
    fill     BIT STRING (SIZE(9)) -- set to '000000000'
    }

CS7::= FreightContainerData
```

```
FreightContainerData::= SEQUENCE {
-- octet aligned by means of 3 fill bits at the end
     ownerCode             BIT STRING(SIZE(19)),   -- 19bits
     serialNumber          INTEGER(0 .. 1000000),   -- 20bits
     checkDigit            INTEGER(0 .. 10),   -- 4bits
     length                INTEGER(1 .. 2000),   -- 11bits
     height                INTEGER(1 .. 500),   -- 9bits
     width                 INTEGER(200 .. 300),   -- 7bits
     containerTypeCode     INTEGER(0 .. 127),   -- 7bits
     maximumGrossMass      INTEGER(19 .. 500),   -- 9bits
     tareMass              INTEGER(0 .. 99),   -- 7bits
     fill                  BIT STRING (SIZE(3)) -- set to '000'
     } -- 12 octets

CS8::= SEQUENCE {
-- octet aligned by means of 6 fill bits at the beginning
     fill                    BIT STRING (SIZE(6)), -- set to '000000'
     countryCode             CountryCode,
     taxCode                 TaxCode
     }

CountryCode::= BIT STRING(SIZE(10))

IssuerIdentifier::= INTEGER(0 .. 16383)

ManufacturerIdentifier::= INTEGER(0 .. 65535)

LicPlateNumber::= OCTET STRING

ServiceNumber::= BIT STRING(SIZE(32))

TaxCode::= OCTET STRING

AlphabetIndicator::= INTEGER {
     latinAlphabetNo1        (0), -- encoded as 00 00 00'B
     latinAlphabetNo2        (1), -- encoded as 00 00 01'B etc
     latinAlphabetNo3        (2),
     latinAlphabetNo4        (3),
     latinCyrillicAlphabet   (4),
     latinArabicAlphabet     (5),
     latinGreekAlphabet      (6),
     latinHebrewAlphabet     (7),
     latinAlphabetNo5        (8),
     latinAlphabetNo6        (9),
     twoOctetBMP             (10),
     fourOctetCanonical      (11)
     } (0..63) -- 6 bits, latinAlphabetNo1 recommended

AviEriDateTime ::= OCTET STRING (SIZE(10))  -- YYMMDDhhmm

StartTime::= AviEriDateTime

StopTime::= AviEriDateTime

GeoGraphicalLimit::= BIT STRING {
     globalRestriction                (0),
     regionalRestriction              (1),
     nationalRestriction              (2),
     district                         (3),
     issuerCoverageRestriction        (4),
     reservedForCEN1                  (5),
     reservedForCEN2                  (6),
     issuerSpecificRestriction        (7)
     } (SIZE(8))

ServiceApplicationLimit::= BIT STRING {
     notForPostpayment           (0),
     notForPrepayment            (1),
     notForVehicleaccess         (2),
     notForFleetcontrol          (3),
     issuerSpecificRestriction1  (4),
```