

Intelligent transport systems - DATEX II data exchange
specifications for traffic management and information -
Part 7: Common data elements

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

Intelligent transport systems - DATEX II data exchange
specifications for traffic management and information -
Part 7: Common data elements

Systèmes de transport intelligents - Spécifications
DATEX II d'échange de données pour la gestion du
trafic et l'information routière - Partie 7: Éléments de
données communs

Intelligente Verkehrssysteme - DATEX II
Datenaustauschspezifikation für Verkehrsmanagement
und Verkehrsinformation - Teil 7: Gemeinsame
Datenelemente

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Contents

Page

European foreword.....	5
Introduction	6
1 Scope.....	7
2 Normative references.....	7
3 Terms and definitions	8
4 Symbols and abbreviations	9
5 Conformance.....	9
6 Predefined model elements	9
6.1 General.....	9
6.2 Top level model packages and classes.....	9
6.3 Basic datatypes	13
6.4 Enumerations	13
7 D2Package “Common::Classes”	13
7.1 The WeatherRelated package.....	13
7.1.1 Overview of the WeatherRelated package.....	13
7.1.2 Semantics of the WeatherRelated package.....	13
7.2 The DataValue package.....	19
7.2.1 Overview of the DataValue package.....	19
7.2.2 Semantics of the DataValue package.....	20
7.3 The Fault package	22
7.3.1 Overview of the Fault package	22
7.3.2 Semantics of the Fault package	22
7.4 The Validity package.....	22
7.4.1 Overview of Validity package	22
7.4.2 Semantics of the Validity package.....	23
7.5 The Vehicle package.....	25
7.5.1 Overview of the Vehicle package.....	25
7.5.2 Semantics of the Vehicle package.....	26
7.6 The VehicleCharacteristics package.....	27
7.6.1 Overview of the VehicleCharacteristics package.....	27
7.6.2 Semantics of the VehicleCharacteristics package	28
7.7 Other classes of the Common::Classes package	28
7.7.1 GlobalReference class.....	28
7.7.2 GroupOfVehiclesInvolved class.....	29
7.7.3 HazardousMaterials class	30
7.7.4 HeaderInformation class.....	31
7.7.5 Source class	31
7.7.6 UrlLink class.....	32
Annex A (normative) Data Dictionary	33
A.1 Overview	33
A.2 Data Dictionary for “Common”	34
A.2.1 “Classes” package	34
A.2.2 “DataValue” package.....	39

A.2.3	"Fault" package	44
A.2.4	"Validity" package	45
A.2.5	"Vehicle" package	50
A.2.6	"VehicleCharacteristics" package	53
A.2.7	"WeatherRelated" package	57
A.3	Data Dictionary of <<D2Datatype>> for "Common"	62
A.3.1	General	62
A.3.2	The <<D2Datatype>> "AngleInDegrees"	62
A.3.3	The <<D2Datatype>> "AxlesPerHour"	62
A.3.4	The <<D2Datatype>> "Base64Binary"	62
A.3.5	The <<D2Datatype>> "Boolean"	62
A.3.6	The <<D2Datatype>> "ConcentrationKilogramsPerCubicMetre"	62
A.3.7	The <<D2Datatype>> "ConcentrationMicrogramsPerCubicMetre"	62
A.3.8	The <<D2Datatype>> "CountryCode"	62
A.3.9	The <<D2Datatype>> "CubicMetres"	62
A.3.10	The <<D2Datatype>> "Date"	62
A.3.11	The <<D2Datatype>> "DateTime"	62
A.3.12	The <<D2Datatype>> "Decimal"	62
A.3.13	The <<D2Datatype>> "Double"	63
A.3.14	The <<D2Datatype>> "Float"	63
A.3.15	The <<D2Datatype>> "Hectopascal"	63
A.3.16	The <<D2Datatype>> "Integer"	63
A.3.17	The <<D2Datatype>> "IntensityKilogramsPerSquareMetre"	63
A.3.18	The <<D2Datatype>> "IntensityMillimetresPerHour"	63
A.3.19	The <<D2Datatype>> "KilometresPerHour"	63
A.3.20	The <<D2Datatype>> "Language"	63
A.3.21	The <<D2Datatype>> "LongString"	63
A.3.22	The <<D2Datatype>> "MetresAsFloat"	63
A.3.23	The <<D2Datatype>> "MetresAsNonNegativeInteger"	63
A.3.24	The <<D2Datatype>> "MetresPerSecond"	63
A.3.25	The <<D2Datatype>> "MultilingualString"	63
A.3.26	The <<D2Datatype>> "NonNegativeInteger"	63
A.3.27	The <<D2Datatype>> "Percentage"	64
A.3.28	The <<D2Datatype>> "Reference"	64
A.3.29	The <<D2Datatype>> "Seconds"	64
A.3.30	The <<D2Datatype>> "String"	64
A.3.31	The <<D2Datatype>> "TemperatureCelsius"	64
A.3.32	The <<D2Datatype>> "Time"	64
A.3.33	The <<D2Datatype>> "Tonnes"	64
A.3.34	The <<D2Datatype>> "Url"	64
A.3.35	The <<D2Datatype>> "VehiclesPerHour"	64
A.3.36	The <<D2Datatype>> "VersionedReference"	64
A.3.37	The <<D2Datatype>> "Year"	64
A.4	Data Dictionary of <<D2Enumeration>> for "Common"	64
A.4.1	General	64
A.4.2	The <<D2Enumeration>> "CalendarWeekWithinMonthEnum"	65
A.4.3	The <<D2Enumeration>> "ComparisonOperatorEnum"	65
A.4.4	The <<D2Enumeration>> "ComputationMethodEnum"	66
A.4.5	The <<D2Enumeration>> "ConfidentialityValueEnum"	66
A.4.6	The <<D2Enumeration>> "DangerousGoodsRegulationsEnum"	67
A.4.7	The <<D2Enumeration>> "DayEnum"	67
A.4.8	The <<D2Enumeration>> "DirectionCompassEnum"	68
A.4.9	The <<D2Enumeration>> "EmissionClassificationEuroEnum"	69

A.4.10	The <<D2Enumeration>> “FaultSeverityEnum”	69
A.4.11	The <<D2Enumeration>> “FaultUrgencyEnum”	70
A.4.12	The <<D2Enumeration>> “FuelTypeEnum”	71
A.4.13	The <<D2Enumeration>> “InformationDeliveryServicesEnum”	72
A.4.14	The <<D2Enumeration>> “InformationStatusEnum”	72
A.4.15	The <<D2Enumeration>> “InstanceOfDayEnum”	73
A.4.16	The <<D2Enumeration>> “LoadTypeEnum”	73
A.4.17	The <<D2Enumeration>> “LowEmissionLevelEnum”	75
A.4.18	The <<D2Enumeration>> “MonthOfYearEnum”	75
A.4.19	The <<D2Enumeration>> “PollutantTypeEnum”	76
A.4.20	The <<D2Enumeration>> “PrecipitationIntensityEnum”	77
A.4.21	The <<D2Enumeration>> “PrecipitationTypeEnum”	77
A.4.22	The <<D2Enumeration>> “PublicEventTypeEnum”	78
A.4.23	The <<D2Enumeration>> “SourceTypeEnum”	81
A.4.24	The <<D2Enumeration>> “SpecialDayTypeEnum”	83
A.4.25	The <<D2Enumeration>> “TimePrecisionEnum”	84
A.4.26	The <<D2Enumeration>> “TrafficTrendTypeEnum”	84
A.4.27	The <<D2Enumeration>> “UriLinkTypeEnum”	85
A.4.28	The <<D2Enumeration>> “ValidityStatusEnum”	85
A.4.29	The <<D2Enumeration>> “VehicleEquipmentEnum”	86
A.4.30	The <<D2Enumeration>> “VehicleStatusEnum”	86
A.4.31	The <<D2Enumeration>> “VehicleTypeEnum”	87
A.4.32	The <<D2Enumeration>> “VehicleUsageEnum”	90
A.4.33	The <<D2Enumeration>> “WeatherRelatedRoadConditionTypeEnum”	91
A.4.34	The <<D2Enumeration>> “WeightTypeEnum”	93
A.4.35	The <<D2Enumeration>> “WinterEquipmentManagementTypeEnum”	93
Annex B	(normative) Referenced XML Schema for “Common”	94
B.1	Overview	94
B.2	DATEX_3_D2Payload.xsd	94
B.3	DATEX_3_Common.xsd	94
Bibliography		160

European foreword

This document (EN 16157-7:2018) has been prepared by Technical Committee CEN/TC 278 “Intelligent transport systems”, the secretariat of which is held by NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2019, and conflicting national standards shall be withdrawn at the latest by June 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

Together with EN 16157-1, this document will supersede CEN/TS 16157-1:2011.

EN 16157-7 is part of a multi-part standard under the general title *Intelligent transport systems — DATEX II data exchange specifications for traffic management and information*.

It covers the pre-defined model elements in the 'Common' namespace.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This European Standard defines a common set of data exchange specifications to support the vision of a seamless interoperable exchange of traffic and travel information across boundaries, including national, urban, interurban, road administrations, infrastructure providers and service providers. Standardization in this context is a vital constituent to ensure interoperability, reduction of risk, reduction of the cost base, promotion of open marketplaces and many social, economic and community benefits to be gained from more informed travellers, network managers and transport operators.

Delivering European Transport Policy in line with the White Paper issued by the European Commission requires co-ordination of traffic management and development of seamless pan European services. With the aim to support sustainable mobility in Europe, the European Commission has been supporting the development of information exchange mainly between the actors of the road traffic management domain for a number of years. In the road sector, DATEX II has been long in fruition, with the European Commission being fundamental to its development through an initial contract and subsequent co-funding through the Euro-Regional projects. With this standardization of DATEX II there is a real basis for common exchange between the actors of the traffic and travel information sector.

This European Standard includes the framework and context for exchanges, the modelling approach, data content, data structure and relationships, communications specification.

This European Standard supports a methodology that is extensible.

This part of EN 16157 is targeted to deal with the common data elements that are used in more than one publication. It specifies reused structures and definitions of information that may be exchanged to convey information described in the other parts of this EN. The elements described in this document have their own namespace "Common".

1 Scope

This document specifies and defines component facets required to support the exchange and shared use of data and information in the field of traffic and travel.

The component facets include the framework and context for data content, data structure and relationships, communications specification.

This document is applicable to:

- traffic and travel information which is of relevance to road networks (non-urban and urban),
- public transport information that is of direct relevance to the use of a road network (e.g. road link via train or ferry service),
- traffic and travel information in the case of Cooperative intelligent transport systems (C-ITS).

This document establishes specifications for data exchange between any two instances of the following actors:

- Traffic Information Centres (TICs),
- Traffic Control Centres (TCCs),
- Service Providers (SPs),

Use of this document can be applicable for use by other actors.

This document covers, at least, the following types of informational content:

- road traffic event information – planned and unplanned occurrences both on the road network and in the surrounding environment,
- information about operator initiated actions – including both advisory and mandatory measures,
- road traffic measurement data, status data, and travel time data,
- travel information relevant to road users, including weather and environmental information,
- road traffic management information and information and advice relating to use of the road network.

This part of EN 16157 specifies common informational structures, relationships, roles, attributes and associated data types required for publishing information within the DATEX II framework. This is specified as a DATEX II sub-model which is part of the DATEX II platform independent model, but this part only covers common elements that are used by more than one publication. It excludes those elements that relate to location information which are specified in FprEN 16157-2.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

EN 16157-1:2018, *Intelligent transport systems — DATEX II data exchange specifications for traffic management and information — Part 1: Context and framework*

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

ISO 639-1, *Codes for the representation of names of languages — Part 1: Alpha-2 code*

ISO 8601:2004, *Data elements and interchange formats — Information interchange — Representation of dates and times*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 16157-1 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

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

3.1

Data value

value of something that can be measured or calculated

3.2

Extension

data model content that is not part of the DATEX II Level A model and that is added in the container package “Extension” (e.g. for project specific purposes)

3.3

Fault

information about a malfunction relating to a specific piece of equipment or process

3.4

Generic publication

DATEX II publication without predefined content used to make extensions at the publication level

3.5

Payload publication

traffic related information or associated management information created at a specific point in time that can be exchanged via a DATEX II interface

Note 1 to entry The “PayloadPublication” class is the top level root class for DATEX II Level A.

3.6

Validity

time period specification for which the exchanged DATEX II information is valid

3.7

Weather data

collection of information related to measured or derived (usually transport related) weather conditions at a specified location