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Intelligent transport systems - DATEX II data exchange specifications for traffic management and information - Part 12: Facility related publications

Intelligente Verkehrssysteme - Datex II Datenaustauschspezifikationen für Verkehrsmanagement und Verkehrsinformationen - Teil 12: Publikationen im Zusammenhang mit Einrichtungen

This Technical Specification (CEN/TS) was approved by CEN on 20 March 2022 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.

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European foreword

This document (CEN/TS 16157-12:2022) has been prepared by Technical Committee CEN/TC 278 “Intelligent transport systems”, the secretariat of which is held by NEN.

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.

EN 16157 series consists of several parts under the general title “Intelligent transport systems — DATEX II data exchange specifications for traffic management and information”. Other parts may be developed in the future.

For users of this document, attention is drawn to the resources of www.datex2.eu. This web site contains related software tools and software resources that aid the implementation of EN 16157 DATEX II.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association and supports essential requirements of EU Directive(s).

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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

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Introduction

This document 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. Standardisation 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 standardisation of DATEX II, there is a real basis for common exchange between the actors of the traffic and travel information sector.

This document includes the framework and context for exchanges, the modelling approach, data content, data structure and relationships.

This document supports a methodology that is extensible.

The 12th part of the CEN/TS 16157 - EN 16157 series (this document) deals with information on facilities. It defines a new DATEX II namespace “Facilities” and sub-models on the following facility related topics:

— Dimensions;

— Equipment or service facilities;

— Operating hours;

— Organisations;

— Rates.

These sub-models can be directly accessed and used by namespaces defined in other parts of the DATEX standard series by specialising the Facility or the FacilityStatus class, as for example, by the energy infrastructure publication or the parking publications. By providing a couple of Publications within this new Part 12 (for example, "OperatingHoursPublication"), it is also possible to specify and publish stand-alone information on the above-mentioned topics and just reference this data elsewhere.

In normative Annex A, the data dictionary for the «D2Namespace» Facilities is specified.

In normative Annex C, the referenced XML schema for the «D2Namespace» Facilities is specified.

The European Committee for Standardisation (CEN) draws attention to the fact that it is claimed that compliance with this document may involve the use of a patent concerning procedures, methods and/or formats given in this document.

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1 Scope

This document specifies and defines component facets supporting 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 exchanges, the modelling approach, data content, data structure and relationships.

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 may be applicable for other actors.

This document series 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;

— Operator initiated actions;

— 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 instructions relating to use of the road network.

This Part of CEN/TS 16157 specifies the informational structures, relationships, association ends, attributes and associated data types required for publishing information about facilities within the DATEX II framework. This is specified as a DATEX II "Facilities" namespace, which is part of the DATEX II platform independent model, but this Part excludes those elements that are specified in EN 16157-2 (Location referencing) and EN 16157-7 (Common data elements).

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