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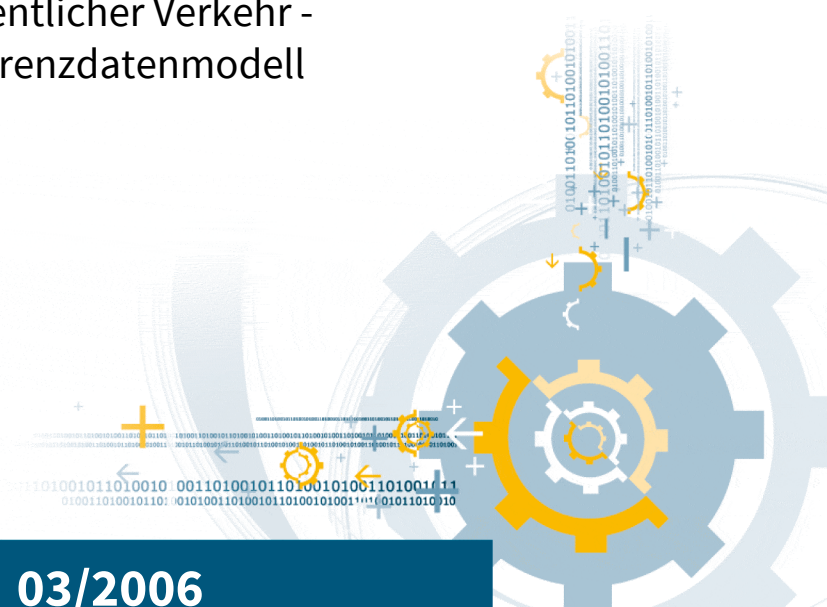
ILNAS-EN 12896:2006

**Road transport and traffic telematics -
Public transport - Reference data
model**

Télématique du transport routier et de la
circulation - Transports publics - Modèle
de données de référence

Straßentransport- und Verkehrstelematik
- Öffentlicher Verkehr -
Referenzdatenmodell

03/2006



National Foreword

This European Standard EN 12896:2006 was adopted as Luxembourgish Standard ILNAS-EN 12896:2006.

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EUROPEAN STANDARD ^{ILNAS-EN 12896:2006} **EN 12896**
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Road transport and traffic telematics - Public transport -
Reference data model

Télématique de la circulation et du transport routier -
Transports publics - Modèle de données

Straßentransport- und Verkehrstelematik - Öffentlicher
Transport - Datenreferenzmodell

This European Standard was approved by CEN on 3 February 2006.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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Contents

Page

Foreword.....	6
Use of the Transmodel standard.....	6
Transmodel origins.....	6
ENV 12896.....	6
Titan 7	
SITP and SITP2.....	7
CEN TC 278 WG 3 SG 4.....	7
Structure of this European Standard.....	7
Conformance.....	8
Future developments.....	9
Introduction.....	10
Rationale for the Transmodel standard.....	10
Use of the Transmodel standard.....	10
Applicability of the Transmodel standard.....	11
Introduction.....	11
Specification of information architecture.....	11
Specification of a database.....	11
Specification of an interface.....	12
Status of the Transmodel standard.....	12
1 Scope.....	13
1.1 General.....	13
1.2 Overview.....	13
1.3 Network description.....	14
1.4 Versions, validity and layers.....	14
1.5 Tactical planning: Vehicle-Driver Scheduling and Rostering.....	14
1.6 Personnel disposition.....	15
1.7 Operations monitoring and control.....	15
1.8 Passenger information.....	16
1.9 Fare collection.....	16
1.10 Management information.....	17
1.11 Multi-modal operation.....	17
1.12 Multiple operators' environment.....	18
2 Terms and definitions.....	18
3 Requirements.....	20
3.1 General.....	20
3.1.1 Introduction.....	20
3.1.2 Modelling Style.....	21
3.1.3 Generic Approach and Abstract Views.....	21
3.1.4 Structures.....	22
3.2 Description of the Network.....	26
3.2.1 Elements of topology.....	26
3.2.2 Infrastructure Description.....	32
3.2.3 Restrictions.....	35
3.2.4 Combined Diagram on Topology.....	37
3.2.5 Additional Aspects to Point.....	39
3.2.6 Generic Network Concepts.....	43
3.2.7 Combined Diagram on Generic Network Concepts.....	49
3.2.8 Network Linear Features.....	50
3.2.9 Combined Diagram on Network Linear Features.....	60
3.2.10 Projection.....	61

3.2.11	Interface to the GDF Data Model.....	66
3.3	Versions, Validity and Layers	67
3.3.1	Introduction.....	67
3.3.2	General Principles	67
3.3.3	Main Concepts	68
3.3.4	Version Frames.....	69
3.3.5	Versions.....	70
3.3.6	Other Aspects	73
3.3.7	Combined Diagram on Versions	74
3.3.8	Explicit Versions.....	74
3.4	Tactical Planning Components.....	76
3.4.1	Days	76
3.4.2	Journeys.....	79
3.4.3	Standard Times.....	84
3.4.4	Journey Times	88
3.4.5	Driver Trips	90
3.4.6	Interchanges	90
3.4.7	Timing Computation of a Journey	93
3.5	Vehicle Scheduling.....	94
3.5.1	Tactical Resource Planning	94
3.5.2	Resources for Tactical Planning.....	94
3.5.3	Vehicle Planning.....	95
3.5.4	Vehicle Requirements	97
3.6	Driver Scheduling.....	99
3.6.1	General Remarks	99
3.6.2	Duties.....	100
3.6.3	Other Aspects of Duties.....	105
3.7	Schedules and Versions	107
3.7.1	Introduction.....	107
3.7.2	Main Types of Schedules and Versions.....	109
3.7.3	Combined Schedules and Versions	111
3.8	Rostering.....	112
3.8.1	General Remarks	112
3.8.2	Roster Matrices.....	113
3.8.3	Roster Cycles.....	115
3.8.4	Roster Designs	115
3.8.5	Roster Assignments.....	116
3.9	Personnel Disposition.....	117
3.9.1	Introduction.....	117
3.9.2	Driver Assignments.....	118
3.9.3	Driver Accounting	121
3.10	Operations monitoring and control	125
3.10.1	Introduction.....	125
3.10.2	Dated Operational Plans	126
3.10.3	Resource Detection and Monitoring.....	130
3.10.4	Vehicle Assignments	134
3.10.5	Monitored Operations	135
3.10.6	Control Actions.....	138
3.10.7	Events.....	143
3.10.8	Messages.....	144
3.11	Passenger Information.....	145
3.11.1	Introduction.....	145
3.11.2	Provision of Information	145
3.11.3	Spatial Information	148
3.11.4	Timetable Information	151
3.11.5	Passenger Trip Planning	156
3.11.6	Estimation of Trip Duration	160
3.11.7	Other Information	163
3.12	Fare Collection.....	164

3.12.1	Introduction	164
3.12.2	Access Rights Specification.....	166
3.12.3	Fare Structure	171
3.12.4	Fare Products.....	174
3.12.5	Limiting Fare Parameters.....	175
3.12.6	Travel Documents.....	179
3.12.7	Sales.....	181
3.12.8	Customers	183
3.12.9	Prices	184
3.12.10	Pre-consumption Specification.....	186
3.12.11	Controls and Validation	188
3.12.12	Fare Version	191
3.12.13	Information on Fares	191
3.13	Management Information	191
3.13.1	Introduction	191
3.13.2	Service Journey Performance	193
3.13.3	Recorded Use of Services	196
3.14	Multi-modal Operation in Public Transport.....	198
3.14.1	Domain Definition and Limits	198
3.14.2	Network Description	199
3.14.3	Resource Management	202
3.14.4	Vehicle Coupling.....	204
3.14.5	Operations	206
3.14.6	Other Aspects	207
3.15	Multiple Operators' Environment	207
3.15.1	Introduction	207
3.15.2	Owners and Users of Resources and Network.....	208
3.15.3	Information from Different Sources	212
3.15.4	Interchanges.....	214
3.15.5	Fare Collection Functions.....	214
Annex A	(normative) Data Definitions and Main Properties	215
A.1	This Annex.....	215
Annex B	(informative) Additional features of the model	269
B.1	Consistency and Integrity Conditions	269
B.1.1	Introduction	269
B.1.2	Logical Constraints	271
B.1.3	Semantic Constraints	276
B.1.4	Optional Constraints	277
B.2	Introduction to Data Modelling and the Methodology Used	278
B.2.1	Introduction	278
B.2.2	Levels of model.....	278
B.2.3	Examples of Different Relationships	280
B.2.4	The Reason for Data Modelling	288
B.2.5	Optimisation and the Optimised Logical Model	295
B.2.6	Subtypes.....	295
B.2.7	Further Notation.....	297
B.3	Functional Model	298
B.3.1	Introduction	298
B.3.2	Functional Model	302
B.3.3	Definition of Functional Areas.....	309
Annex C	(informative) Changes in this version of Transmodel.....	316
C.1	Changes between ENV 12896 (Transmodel 4.1) and Transmodel 5.0.....	316
C.1.1	Introduction	316
C.1.2	Impact of the changes on the entities	317
C.1.3	Impact of the changes on the diagram.....	332
C.2	Modifications to V5.0 leading to V5.1	334
C.2.1	Introduction	334
C.2.2	How to read this Annex.....	334

C.2.3	Requests and proposed modifications	335
Annex D	(informative) Transmodel in UML.....	365
D.1	Introduction.....	365
D.1.1	General	365
D.1.2	Differences between the two representations.....	365
D.1.3	Structure of this Annex.....	365
D.2	Class diagrams	367
D.2.1	Network description	367
D.2.2	Versions, validity and layers	385
D.2.3	Tactical planning components.....	390
D.2.4	Vehicle scheduling	395
D.2.5	Driver scheduling	397
D.2.6	Schedules and versions	399
D.2.7	Rostering	400
D.2.8	Personnel disposition	402
D.2.9	Operations monitoring and control	403
D.2.10	Passenger information.....	410
D.2.11	Fare collection	415
D.2.12	Management information.....	420
D.2.13	Multi-modal operation in public transport	422
D.2.14	Multiple operators' environment.....	425
D.3	Class dictionary	427
D.4	Generalisations and specialisations	638
D.4.1	Specialisations descent.....	638
D.4.2	Generalisations climb up.....	642
D.5	Comparison of notations	650
D.5.1	Relationships/Associations.....	651
	Bibliography.....	655

Foreword

This European Standard (EN 12896:2006) has been prepared by Technical Committee CEN/TC 278 "Road transport and traffic telematics", 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 September 2006, and conflicting national standards shall be withdrawn at the latest by September 2006.

This European Standard supersedes ENV 12896:1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: 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.

Use of the Transmodel standard

This European Standard presents version 5.1 of the European Standard EN 12986, known as "Transmodel". Transmodel 5.1 is a reference standard which provides a conceptual data model for use by organisations with an interest in information systems for the public transport industry.

As a reference standard, it is not necessary for individual systems or specifications to implement Transmodel. However, it needs to be possible to describe (for those elements of systems, interfaces and specifications which fall within the scope of Transmodel):

- the aspects of Transmodel that they have adopted;
- the aspects of Transmodel that they have chosen not to adopt.

For an organisation wishing to specify, acquire and operate information systems, Transmodel may be distilled, refined, or adapted to form a comprehensive data model for the organisation, or specific data models for database design or interface specification.

For an organisation wishing to design, develop and supply information systems, Transmodel may be distilled, refined, or adapted to form a comprehensive data model for the product suite.

Transmodel origins

ENV 12896

The prestandard ENV 12896 was prepared by the work area Transmodel of the EuroBus project (1992-1994) and by the DRIVE II task force Harpist (1995). The EuroBus/Transmodel and Harpist kernel team was established as a subgroup of CEN TC278 Working Group 3. The results of these projects were based upon earlier results reached within the Drive I Cassiope project and the ÖPNV data model for public transport, a German national standard. The prestandard reflected the contents of deliverable C1 of the Harpist task force, published in May 1995, with modifications resulting from the discussion process in CEN TC278/WG3 between May and October 1995.

The different organisations that have technically contributed to the preparation of the prestandard ENV 12896 were the partners of EuroBus/Transmodel and the Harpist task force: Beachcroft Systems (UK), CETE-méditerranée (F), CTA Systems (NL), Ingénieur Conseil Bruno Bert (F), Koninklijk Nederlands Vervoer (NL),

Leeds University (UK), Régie des Transports de Marseille (F), SNV Studiengesellschaft Verkehr (D), Stuttgarter Straßenbahnen AG (D), TransExpert (F), TransTeC (D) and VSN Groep (NL).

The sponsors of the project were the European Communities (EC, DG XIII, F/5, Drive Programme, 1992-94), the French Ministry of Transportation, the Dutch Ministry of Transportation and the German Federal Ministry of Research and Technology.

Titan

The EC project Titan concerned validation and further development of ENV 12896. The different organisations that have technically contributed to the Titan project were: CETE-Méditerranée (F), Üstra (D), OASA (GR), RATP (F), SLTC (F), Salzburger Stadtwerke AG (A), TransExpert (F), TransTeC (D), Synergy (GR), TRUST EEIG (D).

The sponsoring partner was the French Ministry of Transport (DTT/SAE). The project was co-funded by the European Communities and some of the partners, in particular the pilot sites – Lyon (F), Hanover (D) and Salzburg (A).

SITP and SITP2

The French-led project SITP (Système d'Information Transport Public) was sponsored by the French Ministry of Transport (Direction des Transports Terrestres – DTT), the companies Gemplus (F) and Setec ITS (F), and the Transmodel Users' Support Team EEIG (F and D).

SITP built on the prestandard ENV 12896 (issued May 1997) and the results of the EC project Titan (1996-1998). SITP produced the extensions requested of ENV12896; these were validated during 1999-2000. A successor project, SITP2, developed the standard further during 2001-2002.

CEN TC 278 WG 3 SG 4

During 2002-2003, CEN convened a new subgroup of TC 278 WG3 to consider how Transmodel should be taken forward. It considered responses to previous drafts of Transmodel as well as the work of SITP/SITP2, the German VDV specifications, and a range of UK projects.

SG4 was led by the UK Department for Transport, with participants from VDV (D), RATP (F), HÜR (DK), Setec (F), TRUST E.E.I.G. (Transmodel Users' Support Team) (F and D) and Centaur Consulting (UK).

This document, and additional guidance documents (originally produced under SITP) for how it can be used, may be found at www.transmodel.org. Other sites which make this available include www.sitp.its.setec.fr.

Structure of this European Standard

The present European Standard is composed of two parts:

- the normative part (main document and Annex A);
- the informative part (Annexes B, C and D).

The main document presents:

- the history (Foreword) and the rationale (Introduction) of the proposed standard;
- the executive summary of the reference data model (1. Scope);
- the definitions of the terms as they are used in this document (2. Terms and definitions);