



SLOVENSKI STANDARD
SIST-TS CEN ISO/TS 18234-1:2006
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Traffic and Travel Information (TTI) - TTI via Transport Protocol Expert Group (TPEG)
data-streams - Part 1: Introduction, Numbering and Versions (ISO/TS 18234-1:2006)

Reise- und Verkehrsinformation (TTI)) - TTI über Datenströme der Transportprotokoll
Expertengruppe (TPEG) - Teil 1: Einführung, Nummerierung und Versionen (ISO/TS
18234-1:2006)

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Informations sur le trafic et le tourisme (TTI) - Messages TTI via les flux de données du
groupe d'experts du protocole de transport (TPEG) - Partie 1: Introduction, numérotage
et versions (ISO/TS 18234-1:2006)

Ta slovenski standard je istoveten z: CEN ISO/TS 18234-1:2006

ICS:

03.220.01

35.240.60

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ICS 35.240.60; 03.220.01

English Version

Traffic and Travel Information (TTI) - TTI via Transport Protocol
Expert Group (TPEG) data-streams - Part 1: Introduction,
Numbering and Versions (ISO/TS 18234-1:2006)

Informations sur le trafic et le tourisme (TTI) - Messages
TTI via les flux de données du groupe d'experts du
protocole de transport (TPEG) - Partie 1: Introduction,
numérotage et versions (ISO/TS 18234-1:2006)

Reise- und Verkehrsinformation (TTI) - TTI über
Datenströme der Transportprotokoll-Expertengruppe
(TPEG) - Teil 1: Einführung, Nummerierung und Versionen
(ISO/TS 18234-1:2006)

This Technical Specification (CEN/TS) was approved by CEN on 28 September 2004 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.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (CEN ISO/TS 18234-1:2006) has been prepared by Technical Committee CEN/TC 278 "Road transport and traffic telematics", the secretariat of which is held by NEN, in collaboration with Technical Committee ISO/TC 204 "Transport information and control systems".

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.

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**Traffic and Travel Information (TTI) — TTI
via Transport Protocol Expert Group
(TPEG) data-streams —**

**Part 1:
Introduction, numbering and versions**

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*Informations sur le trafic et le tourisme (TTI) — Messages TTI via les
flux de données du groupe d'experts du protocole de transport
(TPEG) —*

SIST **Partie 1. Introduction, numérotage et versions**

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

In other circumstances, particularly when there is an urgent market requirement for such documents, a technical committee may decide to publish other types of normative document:

- an ISO Publicly Available Specification (ISO/PAS) represents an agreement between technical experts in an ISO working group and is accepted for publication if it is approved by more than 50 % of the members of the parent committee casting a vote;
- an ISO Technical Specification (ISO/TS) represents an agreement between the members of a technical committee and is accepted for publication if it is approved by 2/3 of the members of the committee casting a vote.

An ISO/PAS or ISO/TS is reviewed after three years in order to decide whether it will be confirmed for a further three years, revised to become an International Standard, or withdrawn. If the ISO/PAS or ISO/TS is confirmed, it is reviewed again after a further three years, at which time it must either be transformed into an International Standard or be withdrawn.

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

ISO/TS 18234-1 was prepared by Technical Committee ISO/TC 204, *Intelligent transport systems*.

ISO/TS 18234 consists of the following parts, under the general title *Traffic and Travel Information (TTI) — TTI via Transport Protocol Expert Group (TPEG) data-streams*:

- *Part 1: Introduction, numbering and versions*
- *Part 2: Syntax, Semantics and Framing Structure (SSF)*
- *Part 3: Service and Network Information (SNI) application*
- *Part 4: Road Traffic Message (RTM) application*
- *Part 5: Public Transport Information (PTI) application*
- *Part 6: Location referencing applications*

Introduction

TPEG technology uses a byte-oriented stream format, which may be carried on almost any digital bearer with an appropriate adaptation layer. TPEG messages are delivered from service providers to end-users, and are used to transfer application data from the database of a service provider to an end-user's equipment.

TPEG has initially been planned and designed to meet a particular brief, from the EBU's Broadcast Management Committee. Namely: "to develop a new protocol for Traffic and Travel Information, for use in the multimedia broadcasting environment to develop applications, service and transport features which will enable travel-related messages to be coded, decoded, filtered and understood both by humans (visually and/or audibly) and by agent systems". This brief is also endorsed by the EBU TTI Broadcast Strategy Team, which recognizes the vital importance of a bearer independent TTI protocol for broadcast applications.

The following principles have been assumed in the development of the TPEG protocol, structure and semantics:

- TPEG is unidirectional
- TPEG is byte oriented, where a byte is represented by eight bits
- TPEG provides a protocol structure, which employs asynchronous framing
- TPEG includes a CRC error detection capability applicable on a variety of different levels
- TPEG assumes the use of a transparent data channel
- TPEG assumes that underlying systems will have an appropriate level of reliability
- TPEG assumes that underlying systems may employ error correction
- TPEG has a hierarchical data frame structure
- TPEG is used to transport information from database to database
- TPEG provides service provider name, service name and network information
- TPEG permits the use of encryption mechanisms, if required by an application

TPEG applications contain all the information required by a client TPEG decoder to present all the information intended for the end-user when it was originated by the service provider.

The protocol is structured in a layered manner and employs a general purpose framing system which is adaptable and extensible, and which carries frames of variable length. This has been designed with the capability of explicit frame length identification at nearly all levels, giving greater flexibility and integrity, and permitting the modification of the protocol and the addition of new features without disturbing the operation of earlier receiver/decoder models.

TPEG technology has been designed to be usable for a wide range of applications that require the efficient transmission of point to multi-point data over potentially unreliable broadcast channels. It is also suitable for point-to-point and multicast applications and may easily be encapsulated in Internet Protocol.

The Broadcast Management Committee of the European Broadcast Union (EBU) established the B/TPEG project group in autumn 1997 with the mandate to develop, as soon as possible, a new protocol for broadcasting traffic and travel-related information in the multimedia environment. The TPEG technology, its