

BS ISO 17185-1:2014



BSI Standards Publication

Intelligent transport systems — Public transport user information

Part 1: Standards framework for public
information systems

bsi.

...making excellence a habit.
AVA Documents™
Document Sharing Hub

National foreword

This British Standard is the UK implementation of ISO 17185-1:2014.

The UK participation in its preparation was entrusted to Technical Committee EPL/278, Intelligent transport systems.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2014.
Published by BSI Standards Limited 2014

ISBN 978 0 580 80808 1
ICS 03.220.01; 35.240.60

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 May 2014.

Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

Intelligent transport systems — Public transport user information —

Part 1: Standards framework for public information systems

*Systèmes intelligents de transport — Informations destinées aux
utilisateurs des transports publics —*

*Partie 1: Cadre pour les normes relatives aux systèmes d'information
publique*





COPYRIGHT PROTECTED DOCUMENT

© ISO 2014

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols and abbreviated terms	4
5 General Requirement	4
5.1 Importance of PT user information provision.....	4
5.2 Roles of PT user information.....	5
5.3 Objectives of this standard.....	6
5.4 High-level use cases.....	6
5.5 Roles and responsibilities of basic actors.....	8
5.6 Basic functions of PT service operator.....	10
5.7 Basic function of information provider (regional and inter-regional).....	12
5.8 Currently available regional standards.....	15
Annex A (informative) Currently available regional and national standards	18
Bibliography	20

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 204, *Intelligence transport systems*.

ISO 17185 consists of the following parts, under the general title *Intelligent transport systems — Public transport user information*:

- *Part 1: Standards framework for public information systems*
- *Part 2: Data and interface standards catalogue and cross reference*
- *Part 3: Use cases for journey planning systems and their interoperation*

Introduction

TC204 Intelligent Transport Systems, WG8, Public Transport and Emergency Services, have been discussing enhancement of surface public transport information provision to surface public transport users including international travellers around the world by using ITS technology.

WG8, Public Transport and Emergency Services, have been trying to harmonize current surface public transport information provision interface national and regional standards, mainly, the TRANSMODEL standard developed by CEN and the TCIP standard developed by the American Public Transportation Association in the USA. However, because these surface public transport information standards are widely accepted and used for system implementation in their regions, there is no perceived need or demand to harmonize them.

Because WG8's responsibility is to make surface public transport more convenient by realizing stress-free surface public transport user information provision, WG8 has reached the conclusion that it has to establish one International Standard (but not a technical report which has no binding rules) which is defining basic framework that will fit above current national and regional standards. The accepted national and regional standards (at this point in time, TCIP and TRANSMODEL) will be allowed to define the specific information interfaces such as data format, stop point numbering system, etc. that are necessary to the implementation of surface public transport information systems.

This part of ISO 17185 will be beneficial for all ISO/CEN member countries, as well as non-ISO/CEN member countries, because this part of ISO 17185 will be a valuable "text book" to detail basic framework, as well as highlight and encourage use of currently available national and regional standards such as TRANSMODEL, TCIP, and possibly others. The intention is that, by deploying these national and regional standards by other countries or regions, duplication of cost and time is avoidable. For those countries that do not have surface public transport information standards, this approach allows more rapid development and deployment of public transport systems that enhance usability and convenience.

This part of ISO 17185 is specifically set at a higher level and not aiming to harmonize currently available national and regional standards to allow the use of these robust standards which are set at various levels (for example, implementation specifications versus application level standards) but which also experience widespread acceptance in their regional standards. This part of ISO 17185 intends to establish a basic solid foundation for surface public transport user information provision framework and is specifically limited to this scope to avoid conflict with those currently available regional standards.

This part of ISO 17185 is intended to be fully consistent with those currently available national and regional standards which might be related to international surface public transport. In fact, in the case of international surface public transport, surface public transport operators already have transport-related information systems. However, it is not often the case that surface public transport users, including international travellers, are provided with static and real-time information including bus/train/tram locations appropriately and timely. This part of ISO 17185, and its scope and approach, will solve this issue by setting basic framework for surface public transport information provision while embracing existing national and regional standards.

Intelligent transport systems — Public transport user information —

Part 1: Standards framework for public information systems

1 Scope

This part of ISO 17185 defines the framework for the realization of efficient public transport user information provision to surface public transport users including international worldwide travellers.

In the surface public transport user information provision area, a set of regional and national standards have already been established by related regional and national standardizing bodies.

This part of ISO 17185 defines basic framework for user information provision for surface public transport users, from the viewpoint that the surface public transport users should be provided with proper static and real-time information when it is most desired and effective. In order to realize the desirable information provision, surface public transport information has to be efficiently gathered, processed, and provided to surface public transport users in an appropriate way by using currently available regional standards.

This part of ISO 17185 does not aim to define a new part of ISO 17185 that supersedes current regional and national standards related to surface public transport. It aims to define the basic framework of surface public transport user information provision by esteeming existing regional standards and wisely using them.

This part of ISO 17185 does not aim to define specific information interfaces such as data format or a stop point numbering system. The currently available regional standards established by regional and national groups are suggested to be applied in that scope.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 17185-2, *Intelligent transport system — Public transport user information — Part 2: Data and interface standards catalogue and cross reference*

ISO 17185-3, *Intelligent transport system — Public transport user information — Part 3: Use cases for journey planning systems and their inter-operation*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 data

reinterpretable representation of information in a formalized manner suitable for communication, interpretation, or processing

Note 1 to entry: Data can be processed by humans or by automatic means. [ISO/IEC 2382-1:1993, (01.01.02)]

Note 2 to entry: Adapted from ISO/IEC 15944.

3.2 database

collection of electronically stored descriptive records or content units (including facts, full texts, pictures, and sound) with a common user interface and software for the retrieval and manipulation of the data

Note 1 to entry: The units or records are usually collected with a particular intent and are related to a defined topic. A database can be issued on CD-ROM, diskette, or other direct-access method, or as a computer file accessed through dial-up methods or through the Internet.

Note 2 to entry: Licensed databases are counted separately even if access to several licensed database products is effected through the same interface.

Note 3 to entry: A common interface providing access to a packet of serials or digital documents, usually offered by a publisher or vendor, is also to be counted as database. Additionally, the single serials or digital documents are counted as serials or digital documents. [ISO 2789:2013, 2.3.10]

Note 4 to entry: Adapted from ISO 9707.

3.3 data model

graphical and/or lexical representation of data, specifying their properties, structure, and inter-relationships

Note 1 to entry: Adapted from ISO/IEC 11179.

3.4 entity

concrete or abstract thing that exists, did exist, or might exist, including associations among these things

EXAMPLE A person, object, event, idea, process, etc.

Note 1 to entry: An entity exists whether data about it are available or not. [ISO/IEC 2382-17:1999, (17.02.05)]

Note 2 to entry: Adapted from ISO/IEC 15944.

3.5 fare collection

all activities related to the collection of money from passengers

3.6 framework

structure expressed in diagrams, text, and formal rules which relates the components of a conceptual entity to each other

Note 1 to entry: Adapted from ISO 19439:2006, 3.3.

3.7 function

intended effect of a system, subsystem, product, or part

[SOURCE: EN 1325-1:1997]

Note 1 to entry: Functions should have a single definite purpose. Function names should have a declarative structure (e.g. "Validate telecommands") and say "what" is to be done rather than "how". Good naming allows design components with strong cohesion to be easily derived.

Note 2 to entry: Adapted from ISO 16091.