

# Road transport and traffic telematics — Automatic fee collection (AFC) — Interface specification for clearing between operators

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# National foreword

**This publication is not to be regarded as a British Standard.**

It is being issued in the Draft for Development series of publications and is of a provisional nature because the subject of automatic fee collection is still under development. It should be applied on this provisional basis, so that information and experience of its practical application may be obtained.

Comments arising from the use of this Draft for Development are requested so that UK experience can be reported to the European organization responsible for its conversion into a European Standard. A review of this publication will be initiated 2 years after its publication by the European organization so that a decision can be taken on its status at the end of its three-year life. The commencement of the review period will be notified by an announcement in *Update Standards*.

According to the replies received by the end of the review period, the responsible BSI Committee will decide whether to support the conversion into a European Standard, to extend the life of the prestandard or to withdraw it. Comments should be sent in writing to the Secretary of BSI Technical Committee EPL/278, Road Transport Informatics, at 389 Chiswick High Road, London W4 4AL, giving the document reference and clause number and proposing, where possible, an appropriate revision of the text.

**Cross-references**

Attention is drawn to the fact that CEN and CENELEC Standards normally include an annex which lists normative references to international publications with their corresponding European publications. The Drafts for Development which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

**Summary of pages**

This document comprises a front cover, an inside front cover, pages i and ii, the ENV ISO title page, page 2, the ISO/TR title page, pages ii to iv, pages 1 to 25 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

This Draft for Development, having been prepared under the direction of the Electrotechnical Sector Board, was published under the authority of the Standards Board and comes into effect on 15 August 1997

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**Amendments issued since publication**

| Amd. No. | Date | Comments |
|----------|------|----------|
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## Road transport and traffic telematics — Automatic fee collection (AFC) — Interface specification for clearing between operators

(ISO 14904:1997)

Application télématique pour le transport  
routier et la circulation routière —  
Spécification des interfaces pour la  
compensation des recettes entre opérateurs  
(ISO 14904:1997)

Telematik für den Straßen-Verkehr und  
Transport — Schnittstellenspezifikation für  
das Clearing zwischen Systembeteiligten  
(ISO 14904:1997)

This European Prestandard (ENV) was approved by CEN on 1996-10-19 as a prospective standard for provisional application. The period of validity of this ENV 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 ENV can be converted into an European Standard (EN).

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

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

# CEN

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

**Central Secretariat: rue de Stassart 36, B-1050 Brussels**



# TECHNICAL REPORT

# ISO/TR 14904

First edition  
1997-05-15

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## Road transport and traffic telematics — Automatic fee collection (AFC) — Interface specification for clearing between operators

*Transport routier et télématique du trafic — Prélèvement automatique de  
frais (AFC) — Spécification d'interface pour clarification entre opérateurs*



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## Foreword

ISO (the International Organisation 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 or 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 main task of technical committees is to prepare International Standards. In exceptional circumstances a technical committee may propose the publication of a Technical Report of one of the following types:

- type 1, when the required support cannot be obtained for the publication of an International Standard, despite repeated efforts;
- type 2, when the subject is still under technical development or where for any other reason there is the future but not immediate possibility of an agreement on an International Standard;
- type 3, when a technical committee has collected data of a different kind from that which is normally published as an International Standard (“state of the art”, for example).

Technical Reports of types 1 and 2 are subject to review within three years of publication, to decide whether they can be transformed into International Standards. Technical Reports of type 3 do not necessarily have to be reviewed until the data they provide are considered to be no longer valid or useful.

ISO/TR 14904, which is a Technical Report of type 2, was prepared by the European Committee for Standardization (CEN) in collaboration with ISO Technical Committee ISO/TC 204, *Transport information and control systems*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This document is being issued in the Technical Report (type 2) series of publications (according to subclause **G.3.2.2** of part 1 of the ISO/IEC Directives, 1995) as a “prospective standard for provisional application” in the field of *transport information and control systems* because there is an urgent need for guidance on how standards in this field should be used to meet an identified need.

This document is not to be regarded as an “International Standard”. It is proposed for provisional application so that information and experience of its use in practice may be gathered. Comments on the content of this document should be sent to the ISO/TC 204 Secretariat.

A review of this Technical Report (type 2) will be carried out not later than three years after its publication with the options of: extension for another three years; conversion into a International Standard; or withdrawal.

Annex A and Annex ZA form an integral part of this Technical Report. Annex B to Annex E are for information only.

**Descriptors:** Road transport, traffic, use taxes, automatic systems, electronic messaging, computer interfaces.

## 1 Foreword

The text of ENV ISO 14904:1997 has been prepared by Technical Committee CEN/TC 278 “Road transport and traffic telematics”, the secretariat of which is held by NNI, in collaboration with Technical Committee ISO/TC 204 “Transport information and control systems”.

This Prestandard is prepared under the authority of CEN/TC 278 “Road transport and traffic telematics” by a project team (PT1) set up by CEN/TC 278 and consisting of a group of experts from the financial and transport sectors.

The Prestandard references standards made by other project teams and working groups under CEN/TC 224, ISO/TC 204 as well as existing standards made by ISO.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

NOTE Normative references to International Standards are listed in Annex ZA (normative).

## 2 Introduction

Integration of payment systems concerns the co-ordination and handling of all payment services for traffic and transport applications. This co-ordination involves:

- a) the use of a common payment concept for services within or related to road traffic and transport,
- b) the enabling of exchange of payment transactions and operational information between different operators involved in public and private transport services and
- c) the method of payment itself, i.e. the access to electronic payment means, for the settlement of these acquired services.

In order to enable the integration of payment systems on a higher (e.g. pan-European) level and make clearing between operators possible, the interfaces involved need to be standardised.

Therefore this Prestandard is designed as an interface specification enabling data to be exchanged between different operators and systems adopting a variety of application specifications.

It should be noted that although the data structures defined in the current version of the Prestandard reflect a focus on information transfers for clearing purposes, the interface specification defined herein supports equally well other types of information transfers required within and between payment systems.

All amendments and additions to this Prestandard will be handled by CEN TC 278/WG1 through the use of a database of data objects maintained by the workgroup.

## 3 Scope

This Prestandard defines the interfaces for clearing between operators and gives a framework of the common message structure and data elements to be used on the interfaces. Its objective is to make the transfer of payment and Automatic Fee Collection (AFC) related data possible both between different payment systems and between different operators such as collection agents, clearing operators, or providers of public and private transport services.

This Prestandard supports:

- a) different payment modes (e.g. pre-payment, post-payment),
- b) a wide variety of transport and transport related services (tolling, parking, ferry/bridge/tunnel, public transport, payment for route guidance etc.),
- c) operator services (co-ordination between collectors of money and charge points etc.),
- d) security and privacy.

It is not within the scope of this Prestandard to define administrative procedures and organisational structures. The specification of a higher (e.g. pan-European) level inter-operable payment system is outside the scope of this Prestandard.

Not described within this Prestandard are indirect (external) participants such as authorities, enacting general or special legislation concerning the payment system and other national regulations.