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Intelligent transport systems — Interactive centrally determined route guidance (CDRG) — Air interface message set, contents and format

Systèmes intelligents de transport — Guidage routier déterminé centralement interactif (CDRG) — Jeu de message d'interface d'air, contenu et format

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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.

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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 exceptional circumstances, 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), it may decide by a simple majority vote of its participating members to publish a Technical Report. A Technical Report is entirely informative in nature and does not have to be reviewed until the data it provides are considered to be no longer valid or useful.

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ISO/TR 17384 was prepared by Technical Committee ISO/TC 204, *Intelligent transport systems*.

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Introduction

The interactive CDRG system provides a driver with a recommended route to his or her destination. The recommended route is sent as a route object that is utilized to display the route on the navigation map or to produce driving direction instructions. This recommended practice, however, only describes the transferring information, such as route object, that is required for CDRG. How the transferred information is used onboard is left to the in-vehicle unit designer. Because, in some countries, interactive CDRG systems are being developed and implemented using beacon or cellular phone technologies, we recognize the necessity for standardizing message sets for interactive CDRG. By the standardized interactive CDRG message set, drivers will be able to receive CDRG service on the same in-vehicle unit regardless of which CDRG service area the in-vehicle unit has entered.

To help understand the functional and technical aspect of the interactive CDRG, implementation experiments of such a system are explained in Annex A.

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1 Scope

This Technical Report describes the message contents and format of the air interface between the infrastructure and the in-vehicle unit in the Interactive CDRG system. The scope of standardization work will be the message set requirements for the air interface.

a) The air interface message set for route guidance information in the interactive CDRG system in this Technical Report is applicable to both vehicles equipped with an onboard map database and those which are not equipped (i.e. those equipped with simplified graphic output and/or text message display functions).

b) This Technical Report covers media independent systems. In this Technical Report, messages required for both cellular phone-based CDRG and beacon-based CDRG have been taken into account.

c) The size of each message is defined by considering the “In-vehicle Navigation Systems Communication Device Message Set Requirements”.

d) When applying this Technical Report, which is recommended practice to the implementation of any CDRG system, any values less than the defined field size values are allowed, as great importance is attached to the communication efficiency, and the order of description of messages proposed in the message set of this Technical Report might not necessarily be observed.

2 Abbreviations

CDRG	Centrally Determined Route Guidance
LDRG	Locally Determined Route Guidance
SRG	Static Route Guidance
MDRG	Multi-mode Determined Route Guidance
OD	Origin-Destination

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