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Intelligent transport systems — Geographic Data Files (GDF) GDF5.1 —

Part 2:

Map data used in automated driving systems, Cooperative ITS, and multi- modal transport

*Systèmes de transport intelligents — Fichiers de données
géographiques (GDF) GDF5.1 —*

*Partie 2: Partie 2 : Données cartographiques utilisées dans les
systèmes de conduite automatisée, les ITS coopératifs et le transport
multimodal*



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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.

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).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 204, *Intelligent transport systems*.

This first edition cancels and replaces ISO 14825:2011, which has been technically revised.

The main changes compared to the previous edition are as follows:

- this document is newly dedicated to automated driving systems, Cooperative ITS and multi-modal transport.

A list of all parts in the ISO 20524 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

GDF5.0 (ISO 14825) defines the map database exchange format for ITS. Its primary application is in car navigation systems and it assumes the provision of the map database by a single provider. However, ITS applications have been expanding to Cooperative ITS and automated driving systems through the recent progress of technology. In addition, there is demand for capabilities such as the accommodation of map databases from multiple providers and cooperation with externally connecting databases, such as Transmodel (EN 12896-1 and EN 12896-2).

Given this environment, ISO 14296 was published in February 2016 as an extension of map database specifications for applications of Cooperative ITS. However, GDF5.0 (ISO 14825) does not define some elements used in this document and automated driving systems require additional elements based on their unique application requirements. Furthermore, because GDF5.0 (ISO 14825) does not define a method to connect with external databases, the formulation of GDF5.1 (the ISO 20524 series) has become indispensable.

On revising GDF, the changes of conventional GDF are applied in GDF5.1 Part 1 (ISO 20524-1). The addition of a concept, a data model and specifications to satisfy new requirements applies to GDF5.1 Part 2 (this document). The new GDF document (the ISO 20524 series) is accordingly composed of two separate volumes: Part 1(ISO 20524-1) and Part 2 (this document).

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