TECHNICAL SPECIFICATION

ISO/TS 22240

First edition
2008-05-01

Road vehicles — Vehicles safety information model (VSIM)

Véhicules routiers — Modèle d'information pour la sécurité des véhicules (VSIM)

Reference number
ISO/TS 22240:2008(E)

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

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 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order to decide whether it will be confirmed for a further three years, revised to become an International Standard, or withdrawn.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again after a further three years, at which time it must either be transformed into an International Standard or be withdrawn.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 22240 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 12, *Passive safety crash protection systems*.

Introduction

The vehicle safety information model (VSIM) provides a standard model for the filing and exchange of vehicle safety test data.

Figure 1 shows the many forms of data that can be exchanged from vehicle safety testing. VSIM offers a flexible structure for the filing and exchange of data.

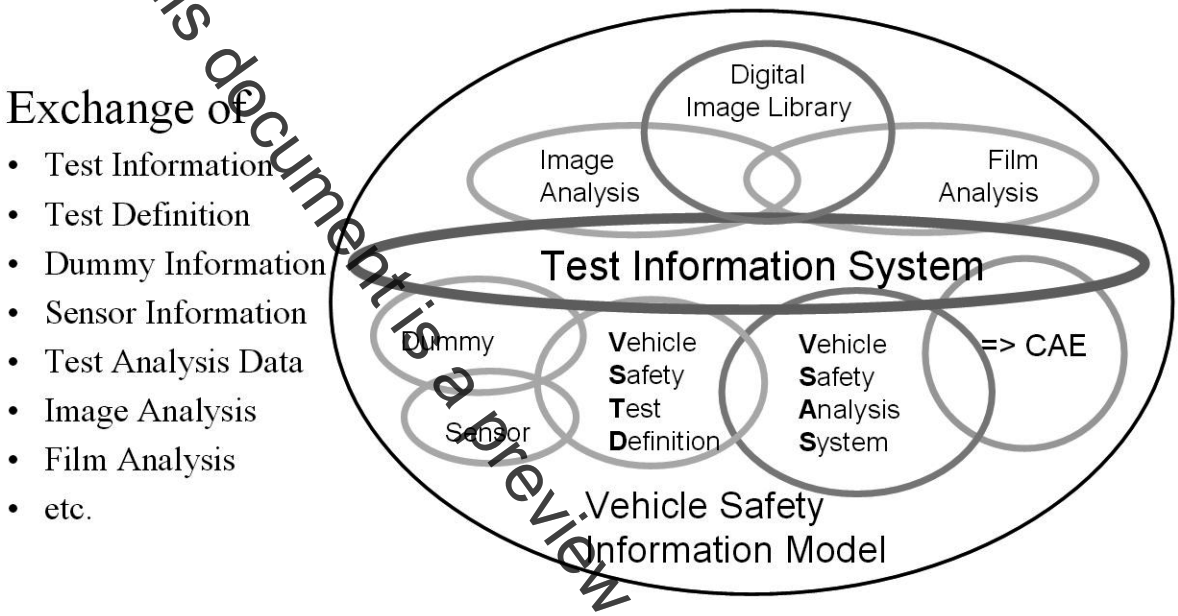

Figure 1 — Forms of data exchange

VSIM serves the already existing ASAM ODS (Association for Standardization of Automation and Measuring Systems Open Data Services) mechanisms. This provides the advantage that the data are available both in a database and a file system. In addition, the data can be exchanged in XML (eXtensible Markup Language) format.

ASAM ODS offers suitable structures for the filing of measurement data. As a result, multidimensional channels and discrete values can be continuously saved.

ASAM ODS offers one model for storing the data either in file or in database, and this method guarantees access to data even after a long period of time.

ASAM ODS is described in ISO/PAS 22720.

VSIM data exchange was developed from the following standards:

— ISO-MME (Multimedia exchange) (see ISO/TS 13499),

— ASAM ATF (ASAM Transport Format), and

— XML (ATF also available as ATF/XML).

Road vehicles — Vehicles safety information model (VSIM)

1 Scope

This Technical Specification presents an enhanced data exchange and data storage format for all data relevant for vehicle safety tests.

The underlying data model is based on ASAM ODS, and the corresponding exchange format is XML.

NOTE 1 Related electronic documents are available on the ISO website.

NOTE 2 The entities defined in Clause 3 are parts of the VSIM data model and are used in Figures 3 to 7.

2 Normative references

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

ISO/TS 13499, *Road vehicles — Multimedia data exchange format for impact tests*

ISO/PAS 22720, *ASAM Open Data Services 5.0*

3 Terms and definitions

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

3.1 Tests

3.1.1
vehicle safety information model
VSIM
root of the whole data model

NOTE The entity describes the environment of the VSIM data model and holds the ISO-MME and ASAM ODS version numbers of the application model for vehicle safety.

3.1.2
Type_Of_Test
root entity of the administration of the Safety_Test, which stores a possible test type list

NOTE 1 It is advisable that the value of “Type_Of_Test” be part of a possible type list, as is the case in the existing vehicle safety analysis model defined by the German workgroup “Messdatenverarbeitung Fahrzeugsicherheit” (data processing for vehicle safety).

NOTE 2 The values of the Type_Of_Test are not standardized and depend on the customized definition.