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National Standards
Authority of Ireland
Glasnevin, Dublin 9
Ireland

Tel: +353 1 807 3800
Fax: +353 1 807 3838
<http://www.nsai.ie>

Sales

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MODELLING FOR AUTOMOTIVE REPAIR

INFORMATION APPLICATIONS

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English version

Modelling for Automotive Repair Information Applications

This CEN Workshop Agreement has been drafted and approved by a Workshop of representatives of interested parties, the constitution of which is indicated in the foreword of this Workshop Agreement.

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Management Centre: rue de Stassart, 36 B-1050 Brussels

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Foreword

The proposal for this Workshop originates from MYCAREVENT, Mobility and Collaborative Work in European Vehicle Emergency Networks, a European Integrated Project, co-funded by the European Commission in the Sixth Framework Programme, for developing a mobile service world in the field of repair and maintenance of passenger vehicles.¹ Standardization is an integral part of the project and supported by the Consortium of Partners of MYCAREVENT as a means of diffusing and disseminating knowledge and innovative approaches on technology. The MYCAREVENT project has 20 partners from nine European countries. The project partners are active in research and development for the automotive industry and its aftermarket as original equipment manufacturers (OEM), roadside assistance providers, software developers, communication specialists, academia, etc.

The Workshop Agreement presents the results of the project's research in the modelling of automotive repair information applications. The Workshop details a generic information reference model as a basis for modelling repair information applications.

This CEN Workshop Agreement has been drafted and approved by a Workshop of representatives of interested parties, the constitution of which is

- the MYCAREVENT project,
- Workshop members,
- those providing input during the public comment period.

At the workshop closing plenary meeting held in Brussels on 2008-01-11, some companies/organisations stated that, although the CEN Workshop is appreciated, further input is necessary to have a formal standard in this domain (either at the European or the international level). For any future standardization in this area, concerns raised by workshop participants must be taken into account. The comments on the CEN Workshop Agreement received during the public comments period are listed in Annex E of this document.

This CEN Workshop Agreement is publicly available as a reference document from the National Members of CEN: AENOR, AFNOR, ASRO, BDS, BSI, CSNI, CYS, DIN, DS, ELOT, EVS, IBN, IPQ, IST, LVS, LST, MSA, MSZT, NEN, NSAI, ON, PKN, SEE, SIS, SIST, SFS, SN, SNV, SUTN and UNI.

Comments or suggestions from the users of the CEN Workshop Agreement are welcome and should be addressed to the CEN Management Centre.

¹ For more information on the Project refer to <http://www.mycarevent.com/index.aspx>.

Introduction

This Workshop Agreement details a Model for Automotive Repair Information Applications (MARIA) that provides a core information model for the modelling of repair information applications in the automotive domain. MARIA is a generic and integrated information reference model, an abstract reference information model that is specialized for use in a particular implementation or 'repair information delivery application' of the model. The Workshop Agreement is based on the results of the MYCAREVENT project's research in the modelling of automotive repair information applications, as detailed by the project's Generic and Integrated Information Reference Model (GIIRM).

The model defines the core classes of information, and the relationships between those classes, that are used to describe vehicle faults and symptoms occurring in vehicle systems and the repair information associated with repairing those vehicle systems. Adjuncts to MARIA are defined to enable its implementation and use: Information Bundles (IB) to exchange instance data about the core classes, an ontology to represent MARIA in a machine-readable form that supports rule-based inference over the objects of the domain, and a default Terminology that allows data to be taken from disparate source systems to be integrated at the data and semantic levels for use in the implementation context.

An application of the model specialises MARIA in order to meet the requirements of the implementation context. This Workshop Agreement documents the process by which the model is specialised for use, that is 'applied', and provides a methodology for how to use and apply the model (by sub-classing the core classes of MARIA, for exchanging metadata about instances of the classes in the model, for developing the ontological representation of the model, and for developing and using terminology in the metadata messages and in the ontology).

Annexes to the Workshop Agreement provide examples of XML artefacts for message schema and ontology, and a methodology for Terminology development.

1 Scope

This Workshop Agreement describes the process of developing a general ontology for information, available across a specific domain of the automotive industry and the related after-market, that is to be used for repair, maintenance, and diagnosis services and products used within passenger cars.

The concept and the process described can be transferred to specifications for ontologies of other types of motor vehicles, other sectors of the market, or other domains.

The Workshop scope is set by the Workshop Business Plan, Workshop Objectives, where it states the intention of the Workshop and the bounds of the work.

2 References

2.1 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 704:2000, *Terminology work – Principles and methods*

ISO 860:1996, *Terminology work – Harmonization of concepts and terms*

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