ISO 22901-1:2008-11 (E)

Road vehicles - Open diagnostic data exchange (ODX) - Part 1: Data model specification

Contents

Page

Foreword v

Introduction vi

1 Scope 1

2 Normative references 1

3 Abbreviated terms 2

4 ODX use cases 3
4.1 General 3
4.2 Use case 1: ODX process chain 3
4.3 Use case 2: Cross vehicle platform ECU diagnostic development 4
4.4 Use case 3: Franchise and aftermarket service dealership diagnostic tool support 5
4.5 Architecture of a Modular VCI compliant D-server 6
4.6 ODX benefit examples 6

5 Specification release version information 8
5.1 Specification release version location 8
5.2 Specification release version 8

6 Introduction to and use of Unified Modelling Language (UML) 8
6.1 General aspects 8
6.2 Class diagrams 8
6.3 Mapping to XML 12

7 ODX data model 14
7.1 General modelling principles 14
7.2 ODX package 26
7.3 ODX data model for diagnostics 29
7.4 Usage scenarios (diagnostic) 183
7.5 ODX data model for ECU memory programming 229
7.6 ECU programming usage scenarios (flash) 253
7.7 ECU variant coding usage scenarios 265
7.8 ODX data model for ECU configuration 266
7.9 Function dictionary 276

8 Data model implementation in XML 287
8.1 Classifier 287
8.2 Relationships 295

9 Packaged ODX data (PDX) 304
9.1 Overview 304
9.2 Structure of PDX package 305
9.3 Usage scenarios 308

Annex A (normative) Enumerations and pre-defined values 315

Annex B (normative) ODX checker rules 326

Annex C (normative) XML schema 345

Annex D (informative) User-defined formats for flashdata 420

Annex E (informative) Coherent examples for diagnostic services 424

Annex F (informative) ECU-MEM example 464

Annex G (informative) Session security example 472

Bibliography 485