

ISO 18541-4:2021 (E)

Road vehicles — Standardized access to automotive repair and maintenance information (RMI) — Part 4: Conformance test

Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Abbreviated terms
5	Conformance test basic principles and clustering
5.1	Basic principles for conformance test case definition
5.2	Conformance test clustering
5.2.1	General
5.2.2	Main conformance test case clusters
6	Test case structure
6.1	Conformance test case — General structure
6.1.1	Overview
6.1.2	Test case reference number and title [RMI-CT_...] [title]
6.1.3	Test purpose
6.1.4	Configuration
6.1.5	Preamble (setup state)
6.1.6	Test execution
6.1.7	Post-amble
6.2	Result criteria
7	CT cluster 1 — Test technical infrastructure
7.1	[RMI-CT_TREQ-13, 14, 15, 16, 18, Annex A] Test client configuration
7.1.1	Overview
7.1.2	Test purpose
7.1.3	Configuration
7.1.4	Preamble (setup state)
7.1.5	Test execution
7.1.6	Post-amble
7.2	[RMI-CT_TREQ-17] Test presentation formats for information packages
7.2.1	Overview
7.2.2	Test purpose
7.2.3	Configuration
7.2.4	Preamble (setup state)
7.2.5	Test execution
7.2.6	Post-amble
8	CT cluster 2 — Test client's external interfaces
8.1	[RMI-CT_TREQ-9] Test vehicle communication interface (VCI)
8.1.1	Overview
8.1.2	Test purpose
8.1.3	Configuration
8.1.4	Preamble (setup state)
8.1.5	Test execution
8.1.6	Post-amble

- 8.2 [RMI-CT_TREQ-11] Test parts ordering for security-related features
 - 8.2.1 Overview
 - 8.2.2 Test purpose
 - 8.2.3 Configuration
 - 8.2.4 Preamble (setup state)
 - 8.2.5 Test execution
 - 8.2.6 Post-amble
- 8.3 [RMI-CT_TREQ-12] Test partnered accessory provider systems
 - 8.3.1 Overview
 - 8.3.2 Test purpose
 - 8.3.3 Configuration
 - 8.3.4 Preamble (setup state)
 - 8.3.5 Test execution
 - 8.3.6 Post-amble
- 9 CT cluster 3 — Test user authentication, authorization and administration
 - 9.1 [RMI-CT_UC1.1] Test to register IO for use of the VM RMI system
 - 9.1.1 Overview
 - 9.1.2 Test purpose
 - 9.1.3 Configuration
 - 9.1.4 Preamble (setup state)
 - 9.1.5 Test execution
 - 9.1.6 Post-amble
 - 9.2 [RMI-CT_UC1.2_A] Test to register IO employee for use of the VM RMI system — Scenario A
 - 9.2.1 Overview
 - 9.2.2 Test purpose
 - 9.2.3 Configuration
 - 9.2.4 Preamble (setup state)
 - 9.2.5 Test execution
 - 9.3 [RMI-CT_UC1.2_B] Test to register IO employee for use of the VM RMI system — Scenario B
 - 9.3.1 Overview
 - 9.3.2 Test purpose
 - 9.3.3 Configuration
 - 9.3.4 Preamble (setup state)
 - 9.3.5 Test execution
 - 9.3.6 Post-amble
 - 9.4 [RMI-CT_UC1.3] Test to maintain IO status
 - 9.4.1 Overview
 - 9.4.2 Test purpose
 - 9.4.3 Configuration
 - 9.4.4 Preamble (setup state)
 - 9.4.5 Test execution
 - 9.4.6 Post-amble
 - 9.5 [RMI-CT_UC1.4] Test to maintain user status
 - 9.5.1 Overview
 - 9.5.2 Test purpose
 - 9.5.3 Configuration
 - 9.5.4 Preamble (setup state)
 - 9.5.5 Test execution
 - 9.5.6 Post-amble
 - 9.6 [RMI-CT_UC1.5] Test to the deletion of the registration of an IO employee
 - 9.6.1 Overview
 - 9.6.2 Test purpose
 - 9.6.3 Configuration
 - 9.6.4 Preamble (setup state)
 - 9.6.5 Test execution
 - 9.6.6 Post-amble
 - 9.7 [RMI-CT_UC1.6] Test login to VM RMI system
 - 9.7.1 Overview
 - 9.7.2 Test purpose
 - 9.7.3 Configuration
 - 9.7.4 Preamble (setup state)

- 9.7.5 Test execution
- 9.7.6 Post-amble
- 9.8 [RMI-CT_UC1.7] Test for granting access to security-related RMI
- 9.8.1 Overview
- 9.8.2 Test purpose
- 9.8.3 Configuration
- 9.8.4 Preamble (setup state)
- 9.8.5 Test execution
- 9.8.6 Post-amble
- 10 CT cluster 4 — Test functional user interface implementation
 - 10.1 [RMI-CT_FREQ-1] Test for RMI access mode
 - 10.1.1 Overview
 - 10.1.2 Test purpose
 - 10.1.3 Configuration
 - 10.1.4 Preamble (setup state)
 - 10.1.5 Test execution
 - 10.1.6 Post-amble
 - 10.2 [RMI-CT_FREQ-2] Test for registration and login support
 - 10.2.1 Overview
 - 10.2.2 Test purpose
 - 10.2.3 Configuration
 - 10.2.4 Preamble (setup state)
 - 10.2.5 Test execution
 - 10.2.6 Post-amble
 - 10.2.7 Result criteria
 - 10.3 [RMI-CT_FREQ-3] Test for implemented use cases map
 - 10.3.1 Overview
 - 10.3.2 Test purpose
 - 10.3.3 Configuration
 - 10.3.4 Preamble (setup state)
 - 10.3.5 Test execution
 - 10.3.6 Post-amble
 - 10.4 [RMI-CT_FREQ-4] Test for download area
 - 10.4.1 Overview
 - 10.4.2 Test purpose
 - 10.4.3 Configuration
 - 10.4.4 Preamble (setup state)
 - 10.4.5 Test execution
 - 10.4.6 Post-amble
 - 10.5 [RMI-CT_FREQ-5] Test for navigational pathway
 - 10.5.1 Overview
 - 10.5.2 Test purpose
 - 10.5.3 Configuration
 - 10.5.4 Preamble (setup state)
 - 10.5.5 Test execution
 - 10.5.6 Post-amble
- 11 CT cluster 5 — Test payment for RMI
 - 11.1 [RMI-CT_UC2] Test payment for RMI
 - 11.1.1 Overview
 - 11.1.2 Test purpose
 - 11.1.3 Configuration
 - 11.1.4 Preamble (setup state)
 - 11.1.5 Test execution
 - 11.1.6 Post-amble
- 12 CT cluster 6 —Test for vehicle identification
 - 12.1 [RMI-CT_UC3.1] Test vehicle identification through use of VIN
 - 12.1.1 Overview
 - 12.1.2 Test purpose
 - 12.1.3 Configuration
 - 12.1.4 Preamble (setup state)
 - 12.1.5 Test execution

- 12.1.6 Post-amble
- 12.2 [RMI-CT_UC3.2] Test vehicle identification via product features
 - 12.2.1 Overview
 - 12.2.2 Test purpose
 - 12.2.3 Configuration
 - 12.2.4 Preamble (setup state)
 - 12.2.5 Test execution
 - 12.2.6 Post-amble
- 13 CT cluster 7 — Test selection methods for RMI
 - 13.1 [RMI-CT_UC4.1] Test selection of information type
 - 13.1.1 Overview
 - 13.1.2 Test purpose
 - 13.1.3 Configuration
 - 13.1.4 Preamble (setup state)
 - 13.1.5 Test execution
 - 13.1.6 Post-amble
 - 13.2 [RMI-CT_UC4.2] Test search by standardized terms
 - 13.2.1 Overview
 - 13.2.2 Test purpose
 - 13.2.3 Configuration
 - 13.2.4 Preamble (setup state)
 - 13.2.5 Test execution
 - 13.2.6 Post-amble
 - 13.3 [RMI-CT_UC4.3] Test navigation using product structure
 - 13.3.1 Overview
 - 13.3.2 Test purpose
 - 13.3.3 Configuration
 - 13.3.4 Preamble (setup state)
 - 13.3.5 Test execution
 - 13.3.6 Post-amble
 - 13.4 [RMI-CT_UC4.4] Test selection by document identifier
 - 13.4.1 Overview
 - 13.4.2 Test purpose
 - 13.4.3 Configuration
 - 13.4.4 Preamble (setup state)
 - 13.4.5 Test execution
 - 13.4.6 Post-amble
- 14 CT cluster 8 — Test retrieval of information packages
 - 14.1 [RMI-CT_UC5.1.1] Test retrieval of general workshop procedures
 - 14.1.1 Overview
 - 14.1.2 Test purpose
 - 14.1.3 Configuration
 - 14.1.4 Preamble (setup state)
 - 14.1.5 Test execution
 - 14.1.6 Post-amble
 - 14.2 [RMI-CT_UC5.1.2] Test retrieval of body repair procedures
 - 14.2.1 Overview
 - 14.2.2 Test purpose
 - 14.2.3 Configuration
 - 14.2.4 Preamble (setup state)
 - 14.2.5 Test execution
 - 14.2.6 Post-amble
 - 14.3 [RMI-CT_UC5.1.3] Test retrieval of temporary repair procedures
 - 14.3.1 Overview
 - 14.3.2 Test purpose
 - 14.3.3 Configuration
 - 14.3.4 Preamble (setup state)
 - 14.3.5 Test execution
 - 14.3.6 Post-amble
 - 14.4 [RMI-CT_UC5.1.4] Test retrieval of preparation for PTI
 - 14.4.1 Overview
 - 14.4.2 Test purpose

14.4.3	Configuration
14.4.4	Preamble (setup state)
14.4.5	Test execution
14.4.6	Post-amble
14.5	[RMI-CT_UC5.2] Test retrieval of wiring diagrams
14.5.1	Overview
14.5.2	Test purpose
14.5.3	Configuration
14.5.4	Preamble (setup state)
14.5.5	Test execution
14.5.6	Post-amble
14.6	[RMI-CT_UC5.3] Test retrieval of technical service bulletin
14.6.1	Overview
14.6.2	Test purpose
14.6.3	Configuration
14.6.4	Preamble (setup state)
14.6.5	Test execution
14.6.6	Post-amble
14.7	[RMI-CT_UC5.4] Test retrieval of recall information
14.7.1	Overview
14.7.2	Test purpose
14.7.3	Configuration
14.7.4	Preamble (setup state)
14.7.5	Test execution
14.7.6	Post-amble
14.8	[RMI-CT_UC5.5] Test retrieval of maintenance schedule
14.8.1	Overview
14.8.2	Test purpose
14.8.3	Configuration
14.8.4	Preamble (setup state)
14.8.5	Test execution
14.8.6	Post-amble
14.9	[RMI-CT_UC5.6.1] Test retrieval of spare parts (identification)
14.9.1	Overview
14.9.2	Test purpose
14.9.3	Configuration
14.9.4	Preamble (setup state)
14.9.5	Test execution
14.9.6	Post-amble
14.10	[RMI-CT_UC5.6.2] Test retrieval of spare parts (access)
14.10.1	Overview
14.10.2	Test purpose
14.10.3	Configuration
14.10.4	Preamble (setup state)
14.10.5	Test execution
14.10.6	Post-amble
14.11	[RMI-CT_UC5.7.1] Test retrieval of accessory information factory fitted (included in general RMI)
14.11.1	Overview
14.11.2	Test purpose
14.11.3	Configuration
14.11.4	Preamble (setup state)
14.11.5	Test execution
14.11.6	Post-amble
14.12	[RMI-CT_UC5.7.2] Test retrieval of accessory information partnered with a VM part number
14.12.1	Overview
14.12.2	Test purpose
14.12.3	Configuration
14.12.4	Preamble (setup state)
14.12.5	Test execution
14.12.6	Post-amble
14.13	[RMI-CT_UC5.7.3] Test retrieval of fitting information for accessories with no VM part number

- 14.13.1 Overview
- 14.13.2 Test purpose
- 14.13.3 Configuration
- 14.13.4 Preamble (setup state)
- 14.13.5 Test execution
- 14.13.6 Post-amble
- 14.14 [RMI-CT_UC5.8] Test retrieval of labour times
- 14.14.1 Overview
- 14.14.2 Test purpose
- 14.14.3 Configuration
- 14.14.4 Preamble (setup state)
- 14.14.5 Test execution
- 14.14.6 Post-amble
- 14.15 [RMI-CT_UC5.9] Test retrieval of converted vehicle information
- 14.15.1 Overview
- 14.15.2 Test purpose
- 14.15.3 Configuration
- 14.15.4 Preamble (setup state)
- 14.15.5 Test execution
- 14.15.6 Post-amble
- 14.16 [RMI-CT_UC5.10] Test retrieval of special tool information
- 14.16.1 Overview
- 14.16.2 Test purpose
- 14.16.3 Configuration
- 14.16.4 Preamble (setup state)
- 14.16.5 Test execution
- 14.16.6 Post-amble
- 15 CT cluster 9 — Test vehicle diagnostics
- 15.1 [RMI-CT_UC6.1] Test DTC resolution
- 15.1.1 Overview
- 15.1.2 Test purpose
- 15.1.3 Configuration
- 15.1.4 Preamble (setup state)
- 15.1.5 Test execution
- 15.1.6 Post-amble
- 15.2 [RMI-CT_UC6.2] Test VM symptom resolution
- 15.2.1 Overview
- 15.2.2 Test purpose
- 15.2.3 Configuration
- 15.2.4 Preamble (setup state)
- 15.2.5 Test execution
- 15.2.6 Post-amble
- 15.3 [RMI-CT_UC6.3] Test integrated diagnostics
- 15.3.1 Overview
- 15.3.2 Test purpose
- 15.3.3 Configuration
- 15.3.4 Preamble (setup state)
- 15.3.5 Test execution
- 15.3.6 Post-amble
- 16 CT cluster 10 — Test updating, replacing and tuning of modules (ECUs)
- 16.1 [RMI-CT_UC7.1] Test updating and replacing modules information
- 16.1.1 Overview
- 16.1.2 Test purpose
- 16.1.3 Configuration
- 16.1.4 Preamble (setup state)
- 16.1.5 Test execution
- 16.1.6 Post-amble
- 16.2 [RMI-CT_UC7.2] Test tuning kit
- 16.2.1 Overview
- 16.2.2 Test purpose
- 16.2.3 Configuration
- 16.2.4 Preamble (setup state)

- 16.2.5 Test execution
- 16.2.6 Post-amble
- 17 CT cluster 11 — Test electronic maintenance history
 - 17.1 [RMI-CT_UC8] Test electronic maintenance history
 - 17.1.1 Overview
 - 17.1.2 Test purpose
 - 17.1.3 Configuration
 - 17.1.4 Preamble (setup state)
 - 17.1.5 Test execution
 - 17.1.6 Post-amble
- 18 CT cluster 12 — Test repair assistance, technical support
 - 18.1 [RMI-CT_UC9] Test repair assistance technical support
 - 18.1.1 Overview
 - 18.1.2 Test purpose
 - 18.1.3 Configuration
 - 18.1.4 Preamble (setup state)
 - 18.1.5 Test execution
 - 18.1.6 Post-amble
- 19 CT cluster 13 — Test request for contact information
 - 19.1 [RMI-CT_UC10.1] Test for retrieval of electronic tool information (diagnostic, reprogramming, VCI)
 - 19.1.1 Overview
 - 19.1.2 Test purpose
 - 19.1.3 Configuration
 - 19.1.4 Preamble (setup state)
 - 19.1.5 Test execution
 - 19.1.6 Post-amble
 - 19.2 [RMI-CT_UC10.2] Test for retrieval of test equipment and diagnostic tool manufacturers information
 - 19.2.1 Overview
 - 19.2.2 Test purpose
 - 19.2.3 Configuration
 - 19.2.4 Preamble (setup state)
 - 19.2.5 Test execution
 - 19.2.6 Post-amble
 - 19.3 [RMI-CT_UC10.3] Test for retrieval of training material (delegate information)
 - 19.3.1 Overview
 - 19.3.2 Test purpose
 - 19.3.3 Configuration
 - 19.3.4 Preamble (setup state)
 - 19.3.5 Test execution
 - 19.3.6 Post-amble
 - 19.4 [RMI-CT_UC10.4] Test for retrieval of redistributor contact information
 - 19.4.1 Overview
 - 19.4.2 Test purpose
 - 19.4.3 Configuration
 - 19.4.4 Preamble (setup state)
 - 19.4.5 Test execution
 - 19.4.6 Post-amble
 - 19.5 [RMI-CT_UC10.5] Test for retrieval of republisher information
 - 19.5.1 Overview
 - 19.5.2 Test purpose
 - 19.5.3 Configuration
 - 19.5.4 Preamble (setup state)
 - 19.5.5 Test execution
 - 19.5.6 Post-amble
 - 19.6 [RMI-CT_UC10.6] Test for retrieval of inspection and testing services information
 - 19.6.1 Overview
 - 19.6.2 Test purpose
 - 19.6.3 Configuration
 - 19.6.4 Preamble (setup state)

- 19.6.5 Test execution
- 19.6.6 Post-amble
- 19.7 [RMI-CT_UC10.7] Test for retrieval of alternative fuels retrofit system information
- 19.7.1 Overview
- 19.7.2 Test purpose
- 19.7.3 Configuration
- 19.7.4 Preamble (setup state)
- 19.7.5 Test execution
- 19.7.6 Post-amble
- 19.8 [RMI-CT_UC10.8] Test for retrieval of engine and components remanufacturing information
- 19.8.1 Overview
- 19.8.2 Test purpose
- 19.8.3 Configuration
- 19.8.4 Preamble (setup state)
- 19.8.5 Test execution
- 19.8.6 Post-amble
- 19.9 [RMI-CT_UC10.9] Test for retrieval of component and parts manufacturer information
- 19.9.1 Overview
- 19.9.2 Test purpose
- 19.9.3 Configuration
- 19.9.4 Preamble (setup state)
- 19.9.5 Test execution
- 19.9.6 Post-amble
- 19.10 [RMI-CT_UC10.10] Test for retrieval of validation of independently developed non-proprietary VCI information
- 19.10.1 Overview
- 19.10.2 Test purpose
- 19.10.3 Configuration
- 19.10.4 Preamble (setup state)
- 19.10.5 Test execution
- 19.10.6 Post-amble
- 20 CT cluster 14 — Test courses and training information
- 20.1 [RMI-CT_UC11] Test for courses and training information
- 20.1.1 Overview
- 20.1.2 Test purpose
- 20.1.3 Configuration
- 20.1.4 Preamble (setup state)
- 20.1.5 Test execution
- 20.1.6 Post-amble
- 21 CT cluster 15 — Test data administration requirements
- 21.1 [RMI-CT_TREQ-1] Test general access-related data administration
- 21.1.1 Overview
- 21.1.2 Test purpose
- 21.1.3 Configuration
- 21.1.4 Preamble (setup state)
- 21.1.5 Test execution
- 21.1.6 Post-amble
- 21.2 [RMI-CT_TREQ-2] Test administration of IO data by the VM
- 21.2.1 Overview
- 21.2.2 Test purpose
- 21.2.3 Configuration
- 21.2.4 Preamble (setup state)
- 21.2.5 Test execution
- 21.2.6 Post-amble
- 21.3 [RMI-CT_TREQ-3] Test administration of IO employee data by the VM
- 21.3.1 Overview
- 21.3.2 Test purpose
- 21.3.3 Configuration
- 21.3.4 Preamble (setup state)
- 21.3.5 Test execution
- 21.3.6 Post-amble

- 21.4 [RMI-CT_TREQ-4] Test administration of invoicing data by VM
 - 21.4.1 Overview
 - 21.4.2 Test purpose
 - 21.4.3 Configuration
 - 21.4.4 Preamble (setup state)
 - 21.4.5 Test execution
 - 21.4.6 Post-amble
- 21.5 [RMI-CT_TREQ-5] Test administration of access event data by VM
 - 21.5.1 Overview
 - 21.5.2 Test purpose
 - 21.5.3 Configuration
 - 21.5.4 Preamble (setup state)
 - 21.5.5 Test execution
 - 21.5.6 Post-amble
- 21.6 [RMI-CT_TREQ-6] Test administration of access event data to security-related RMI by VM
 - 21.6.1 Overview
 - 21.6.2 Test purpose
 - 21.6.3 Configuration
 - 21.6.4 Preamble (setup state)
 - 21.6.5 Test execution
 - 21.6.6 Post-amble
- 22 CT cluster 16 — Test VM software installation on the IO client
 - 22.1 [RMI-CT_TREQ-20] Test for requirements for installing VM-specific software on the IO client
 - 22.1.1 Overview
 - 22.1.2 Test purpose
 - 22.1.3 Configuration
 - 22.1.4 Preamble (setup state)
 - 22.1.5 Test execution
 - 22.1.6 Post-amble
 - 22.2 [RMI-CT_TREQ-21] Test for requirements for updating of installed VM data and applications on the IO client
 - 22.2.1 Overview
 - 22.2.2 Test purpose
 - 22.2.3 Configuration
 - 22.2.4 Preamble (setup state)
 - 22.2.5 Test execution
 - 22.2.6 Post-amble
 - 22.3 [RMI-CT_TREQ-22] Test for requirements for the operation of VM-specific software on the IO client
 - 22.3.1 Overview
 - 22.3.2 Test purpose
 - 22.3.3 Configuration
 - 22.3.4 Preamble (setup state)
 - 22.3.5 Test execution
 - 22.3.6 Post-amble
 - 22.4 [RMI-CT_TREQ-23] Test for requirements for the uninstalling of VM-specific software on the IO client
 - 22.4.1 Overview
 - 22.4.2 Test purpose
 - 22.4.3 Configuration
 - 22.4.4 Preamble (setup state)
 - 22.4.5 Test execution
 - 22.4.6 Post-amble
 - 22.5 [RMI-CT_TREQ-24] Test for requirements for restoring in case of an abnormal termination of the VM specific software on the IO client
 - 22.5.1 Overview
 - 22.5.2 Test purpose
 - 22.5.3 Configuration
 - 22.5.4 Preamble (setup state)
 - 22.5.5 Test execution
 - 22.5.6 Post-amble

- 23 CT cluster 17 — Test VM RMI operations
 - 23.1 [RMI-CT_TREQ-25] Test for VM RMI system availability time
 - 23.1.1 Overview
 - 23.1.2 Test purpose
 - 23.1.3 Configuration
 - 23.1.4 Preamble (setup state)
 - 23.1.5 Test execution
 - 23.1.6 Post-amble
 - 23.2 [RMI-CT_TREQ-26] Test for support for the usage of the VM RMI system
 - 23.2.1 Overview
 - 23.2.2 Test purpose
 - 23.2.3 Configuration
 - 23.2.4 Preamble (setup state)
 - 23.2.5 Test execution
 - 23.2.6 Post-amble
- 24 CT cluster 18 — Test trust centre (certificate management)
 - 24.1 [RMI-CT_TREQ-10] Test for trust centre (certificate management)
- Annex A (normative) Access to security-related RMI according to SERMI scheme
 - A.1 General
 - A.2 [RMI-CT_UC1.7] Test for granting access to security-related RMI
 - A.2.1 Overview
 - A.2.2 Test purpose
 - A.2.3 Configuration
 - A.2.4 Preamble (setup state)
 - A.2.5 Test execution
 - A.2.6 Post-amble
 - A.3 [RMI-CT_TREQ-10] Test for trust centre (certificate management)
 - A.3.1 Overview
 - A.3.2 Test purpose
 - A.3.3 Configuration
 - A.3.4 Preamble (setup state)
 - A.3.5 Test execution
 - A.3.6 Post-amble
 - A.4 [RMI-CT_TREQ-11] Test parts ordering for security-related features
 - A.4.1 Overview
 - A.4.2 Test purpose
 - A.4.3 Configuration
 - A.4.4 Preamble (setup state)
 - A.4.5 Test execution
 - A.4.6 Post-amble