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Cestna vozila - Standardiziran dostop do informacij o popravilih in vzdrževanju avtomobilov (RMI) - 1. del: Splošne informacije in definicija primerov uporabe (ISO 18541-1:2021)

Road vehicles - Standardized access to automotive repair and maintenance information (RMI) - Part 1: General information and use case definition (ISO 18541-1:2021)

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Straßenfahrzeuge - Standardisierter Zugang zu Reparatur- und Wartungsinformationen (RMI) - Teil 1: Allgemeine Informationen und Beschreibung der Anwendungsfälle (ISO 18541-1:2021)

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Véhicules routiers - Normalisation de l'accès aux informations relatives à la réparation et à la maintenance pour l'automobile (RMI) - Partie 1: Informations générales et définitions de cas d'utilisation (ISO 18541-1:2021)

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43.180	Diagnostična, vzdrževalna in preskusna oprema	Diagnostic, maintenance and test equipment

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Straßenfahrzeuge - Standardisierter Zugang zu Reparatur- und Wartungsinformationen (RMI) - Teil 1: Allgemeine Informationen und Beschreibung der Anwendungsfälle (ISO/FDIS 18541-1:2021)

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European foreword

This document (EN ISO 18541-1:2021) has been prepared by Technical Committee ISO/TC 22 "Road vehicles" in collaboration with Technical Committee CEN/TC 301 "Road vehicles" the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2021, and conflicting national standards shall be withdrawn at the latest by December 2021.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

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ISO
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Second edition
2021-06

**Road vehicles — Standardized access
to automotive repair and maintenance
information (RMI) —**

**Part 1:
General information and use case
definition**

iTeh STANDARD PREVIEW

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*Véhicules routiers — Normalisation de l'accès aux informations
relatives à la réparation et à la maintenance pour l'automobile
(RMI) —*

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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).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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 22, *Road vehicles*, Subcommittee SC 31, *Data communication*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 301, *Road vehicles*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 18541-1:2014), which has been technically revised.

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

- security-related RMI according to SERMI scheme moved to [Annex A](#);
- correction of errors and improvement of formulations in the entire document.

A list of all parts in the ISO 18541 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.

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Introduction

The ISO 18541 series includes the requirements to be fulfilled by repair and maintenance information (RMI) systems as applied by the European Commission — Enterprise and Industry Directorate-General, Consumer goods — Automotive industry EC mandate M/421,^[5] dated Brussels, 21 January 2008.

This mandate relates to the EC type-approval system for vehicles falling into the scopes of Directives 70/156/EEC (replaced by 2007/46/EC ^[8]), 2002/24/EC [replaced by (EU) 168/2013 ^[6]] and 2003/37/EC [replaced by (EU) 167/2013 ^[7]] and, in particular, to requirements for access to vehicle repair and maintenance information by independent operators.

The purpose of the EC Mandate M/421 is to develop a standard or set of standards which specify the requirements to provide standardized access to automotive repair and maintenance information (RMI) for independent operators.

The ISO 18541 series only covers access to automotive repair and maintenance information for light passenger and commercial vehicles [see (EC) No 715/2007 ^[15], (EC) No 692/2008 ^[14] and (EU) No 566/2011 ^[11]] and heavy-duty vehicles [see (EC) No 595/2009 ^[13], (EU) No 582/2011 ^[12] and (EU) No 64/2012^[9]] based on Directive 2007/46/EC ^[8] and for two-or three-wheel vehicles and quadricycles based on regulation (EU) 168/2013 ^[6].

The information included in the ISO 18541 series derives from the legislative requirements on European level in the field of RMI and related security requirements and can be referenced by legislation in other countries.

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Road vehicles — Standardized access to automotive repair and maintenance information (RMI) —

Part 1: General information and use case definition

1 Scope

This document provides a general overview and structure of each part of the ISO 18541 series. This document also describes the use cases applicable to the standardized access to automotive RMI. The use cases address real world scenarios (e.g. servicing vehicles) regarding the information access necessary to perform vehicle roadside assistance, inspection, diagnosis, repair and maintenance, including the updating and replacement of electronic control units (ECU).

Furthermore, this document defines requirements for granting access to security-related RMI in [Annex A](#) following the SERMI scheme.

The RMI systems used by personnel to perform the services consist of:

- a web-based system, which provides access to RMI needed to perform the service(s);
- contact information for specific RMI;
- a security framework to protect access to security-related RMI (vehicle theft protection measures).

This document is applicable to light passenger vehicles and light commercial vehicles.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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/IEC 9594-8, *Information technology — Open systems interconnection — Part 8: The Directory: Public key and attribute certificate frameworks*

ISO 18541-2, *Road vehicles — Standardized access to automotive repair and maintenance information (RMI) — Part 2: Technical requirements*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

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3.1
access level
level of access to *repair and maintenance information* (3.37) which is either related to security or not related to security

EXAMPLE One might consider an access level related to security and another one to RMI not related to security. They represent two different access levels.

3.2
accessory
supplementary feature and component selected by a vehicle owner to enhance safety, performance, comfort, etc. and whose fitting does not impact the vehicle approval

3.3
alternative fuel
type of fuel that is either gaseous at atmospheric temperature and pressure or substantially non-mineral oil derived

Note 1 to entry: Adopted from Regulation (EC) 715/2007 [15].

3.4
alternative fuels retrofit system
engine system mounted on an already registered vehicle for the purpose of operation with *alternative fuels* (3.3)

3.5
alternative fuels system manufacturer
manufacturer of an engine system operating with an *alternative fuel* (3.3)

3.6
appropriate software level
applicable software version for the individual vehicle

3.7
authorized repairer
AR
provider of repair and maintenance services for motor vehicles operating within the distribution system set up by a supplier of motor vehicles

Note 1 to entry: See Regulation (EC) 461/2010 Article 1 (1)(c) [10].

3.8
certificate
electronic document which uses a digital signature to bind a public key with an identity

3.9
converted vehicle
factory-produced vehicle which has been altered by the addition, deletion, substitution or modification of the body, chassis or essential parts that resembles, but is no longer identical to, the original vehicle for a special purpose

Note 1 to entry: The purpose of the alteration (s) can be, for example to act as rescue vehicle or taxicab.

3.10
diagnostic information
description of an error or symptom and a list of potential causes or hints for further investigation to the same level and content as provided to the *authorized repairer* (3.7)

3.11**diagnostic trouble code****DTC**

numeric or alphanumeric identifier which identifies or labels a malfunction

[SOURCE: GTR No 5, [16] definition 3.6]

3.12**electronic maintenance history**

digital *information package* (3.18) with virtual stamps that confirms the execution of the prescribed maintenance actions according to the *vehicle manufacturer's* (3.45) schedule

3.13**independent operator****IO**

company or legal entity other than authorized dealers and repairers who is directly or indirectly involved in the repair and maintenance of motor vehicles

EXAMPLE Repairers, manufacturers or distributors of repair equipment, tools or spare parts, publishers of technical information, automobile clubs, roadside assistance operators, operators offering inspection and testing services, operators offering training for installers, manufacturers and repairers of equipment for *alternative fuel* (3.3) vehicles.

3.14**IO approval**

process by which, upon payment of a reasonable and proportionate fee, the CAB sanctions or approves a legitimate commercial enterprise to engage in *security-related RMI* (3.38) activities

3.15**IO authorization**

process by which, upon payment of a reasonable and proportionate fee, the CAB assesses that an individual employee of an approved *independent operator* (3.13) complies with the requirements specified in this document and is entitled to be given access to *security-related RMI* (3.38)

Note 1 to entry: As part of this authorization, the individual employee will be allocated, upon payment of a reasonable and proportionate fee, a secure hardware token containing a personal digital *certificate* (3.8) and a PIN that will be supplied by the trust centre.

3.16**IO commercial re-user**

entity that is acting as a *redistributor* (3.33) or a *republisher* (3.36)

3.17**IO legal representative**

natural person empowered to legally represent the *independent operator* (3.13) in all aspects of the access to the *vehicle repair and maintenance information* (3.35)

3.18**information package**

collection of information provided by the *VM's RMI system* (3.46) in response to a specific request

3.19**information type**

category, group or set of information

EXAMPLE *Workshop procedures* (3.47) (for body repair, temporary repair, periodic technical inspection), wiring diagrams, *technical service bulletins* (3.41), *recall* (3.32) information and maintenance information.