INTERNATIONAL STANDARD

ISO 18542-1

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Road vehicles — Standardized repair and maintenance information (RMI) terminology —

Part 1: General information and use case definition

Véhicules routiers — Terminologie normalisée pour l'information sur la réparation et la maintenance (RMI) —

Partie 1: Informations générales et définition de cas d'utilisation

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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.

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.

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 18542-1 was prepared by Technical Committee CEN/CENELEC/TC 301, *Road vehicles* in collaboration with Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 3, *Electrical and electronic equipment*.

ISO 18542 consists of the following parts, under the general title *Road vehicles — Standardized repair and maintenance information (RMI) terminology*:

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

— *Part 2: Standardized process implementation requirements, Registration Authority*

Introduction

ISO 18542 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 [3]

"MANDATE TO THE EUROPEAN STANDARDIZATION ORGANISATIONS FOR STANDARDIZATION IN THE FIELD OF VEHICLE OBD, REPAIR AND MAINTENANCE INFORMATION"

dated Brussels, 21 January 2008.

This mandate relates to the EC type-approval system for vehicles falling into the scopes of Directives 2002/24/EC [5], 2003/37/EC [6] and 2007/46/EC) [7], and, in particular, to requirements for access to vehicle repair and maintenance information by independent operators.

At this time, ISO 18542 only covers the terminology for access to automotive repair and maintenance information for light passenger and commercial vehicles[1)] based on Directive 2007/46/EC [7].

The purpose of the EC Mandate M/421 [3] is to develop a standard or set of standards which specify the requirements to provide "standardized access to repair and maintenance information (RMI)" for independent operators.

The information included in this part of ISO 18542 derives from the legislative requirements at a European level in the field of repair and maintenance information and related security requirements and can be referenced by legislation in other countries.

It is related to the following future International Standards:

— ISO 18542-2, *Road vehicles — Standardized repair and maintenance information (RMI) terminology — Part 2: Standardized process implementation requirements, Registration Authority*, which defines the process implementation requirements for a terminology management system and for a Registration Authority with a digital annex;

— ISO 18541-1, *Road vehicles — Standardized access to automotive repair and maintenance information (RMI) — Part 1: General information and use case definition*, which describes the requirements for the vehicle manufacturer (VM) repair and maintenance information (RMI) systems;

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

— ISO 18541-3, *Road vehicles — Standardized access to automotive repair and maintenance information (RMI) — Part 3: Functional user interface requirements*;

— ISO 18541-4, *Road vehicles — Standardized access to automotive repair and maintenance information (RMI) — Part 4: Conformance test*.

The purpose of the standardized automotive terminology is to facilitate searching for RMI in the VM RMI systems.

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1) REGULATION (EC) No 715/2007 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 June 2007 on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information [7] and COMMISSION REGULATION (EC) No 692/2008 of 18 July 2008 implementing and amending Regulation (EC) No 715/2007 of the European Parliament and of the Council on type-approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information [8] and amending COMMISSION REGULATION (EU) No 566/2011 of 8 June 2011 amending Regulation (EC) No 715/2007 of the European Parliament and of the Council and Commission Regulation (EC) No 692/2008 as regards access to vehicle repair and maintenance information.

The information packages that are to be searched using the standardized terminology are described in this part of ISO 18542. Not all of the use cases and information types described in this part of ISO 18542 are pertinent; rather a subset is applicable to this standard.

This subset concerns the searching of the terms described in UC 4.2 according to ISO 18541-1 of the following information package types:

— Workshop Procedures (UC 5.1);

— Wiring Diagrams (UC 5.2);

— Technical Service Bulletins (UC 5.3).

Road vehicles — Standardized repair and maintenance information (RMI) terminology —

Part 1: General information and use case definition

1 Scope

ISO 18542 is structured in two parts:

— This part of ISO 18542 defines a framework and a process for agreeing terms.

— Part 2 defines the process implementation requirements for a terminology management system and for a Registration Authority with a digital annex.

The basic purpose of ISO 18542 is to facilitate searching of vehicle manufacturer (VM) repair and maintenance information (RMI) websites by independent operators (IOs).

This part of ISO 18542 provides a general overview and structure of each part of ISO 18542. It also specifies use cases related to repair and maintenance information (RMI) terminology in order to standardize the access to RMI for IOs.

The provision of the agreed automotive RMI terminology itself is outside the remit of ISO 18542 and therefore outside the scope of this part of ISO 18542. Rather, it is foreseen that the agreed automotive RMI terminology will follow a lifecycle beyond the timeframe of ISO 18542. It will be dependent upon the work of a Registration Authority, a Terminology Review Group for its creation and management, and of a digital annex for its publication. For the development of the digital annex, existing standards will be reviewed and elements included where appropriate and practical.

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

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

ISO 18542-2, *Road vehicles — Standardized repair and maintenance information (RMI) terminology — Part 2: Standardized process implementation requirements, Registration Authority*

Terms, definitions and abbreviated terms

3.1 Terms and definitions

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

3.1.1
access level
one of the levels of access to RMI including the rights and permissions assigned to a category of users

EXAMPLE One may consider an access to RMI relevant to security and another one to RMI not relevant to security. They represent two different access levels.

3.1.2
agreed RMI terminology
set of agreed, translated and communicated terms for searching RMI packages in a vehicle manufacturer RMI system

3.1.3
applicant
individual who makes an application requesting access to the terminology management system

3.1.4
change control board
CCB
process group, established by the Registration Authority, having responsibility for approving any system change requests

3.1.5
defined target language
language defined by the Registration Authority for term translation

3.1.6
digital annex
digital library in which terms related to automotive RMI terminology are stored and made available in digital formats in the defined target languages

3.1.7
end user
independent operator or vehicle manufacturer user, where independent operator corresponds to the legal definition provided in the referenced legislation regarding vehicle type approval

3.1.8
entity
object, concept or notion in the automotive domain designated by a term

NOTE An entity only exists for this process if there is a term in US-English designating it. The entity is the common meaning of all translated terms in the defined target languages from the US-English term.

3.1.9
independent operator
IO
undertakings other than authorized dealers and repairers which are directly or indirectly involved in the repair and maintenance of motor vehicles, in particular 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 vehicles

3.1.10
process object
result of a process use case

NOTE For a detailed description, see 6.2.2.

3.1.11
process user
person enabled to participate in the terminology process and to use the system for the different actions in the process

NOTE For a detailed description, see 7.1.

3.1.12
registration authority
institution that operates the automotive RMI terminology process, the terminology management system (TMS) and the digital annex

3.1.13
terminology management system
TMS
<RMI> web-based system that is used to create and manage the agreed terms

3.1.14
terminology management system administrator
TMS administrator
person who maintains the TMS and is responsible for a range of operational and maintenance activities for both the TMS and the database

NOTE Including but not limited to managing registrations, updates to the TMS, operation and maintenance support, and release management.

3.1.15
term
word or standalone expression for an entity that has linguistic, semantic and grammatical integrity

3.1.16
translation memory
TM
storage of 'segments', which can be sentences or sentence-like units (headings, titles or elements in a list), that have been previously translated

NOTE The translation memory stores the source text and its corresponding translation in language pairs called translation units.

3.1.17
vehicle manufacturer
VM
person or body responsible to the approval authority for all aspects of the type approval or authorization process and for ensuring conformity of production of a vehicle

NOTE 1 It is not essential that the person or body be directly involved in all stages of the construction of the vehicle, system, component or separate technical unit which is the subject of the approval process.

NOTE 2 Adopted from Directive 2007/46/EC [7].

3.1.18
vehicle manufacturer repair and maintenance information system
VM RMI system
information system by which the VM provides access to RMI through a website

3.2 Abbreviated terms

AR authorized repairer

CCB change control board

DA digital annex

GUI graphical user interface

IO independent operator

RMI repair and maintenance information

TM translation memory

TMS terminology management system

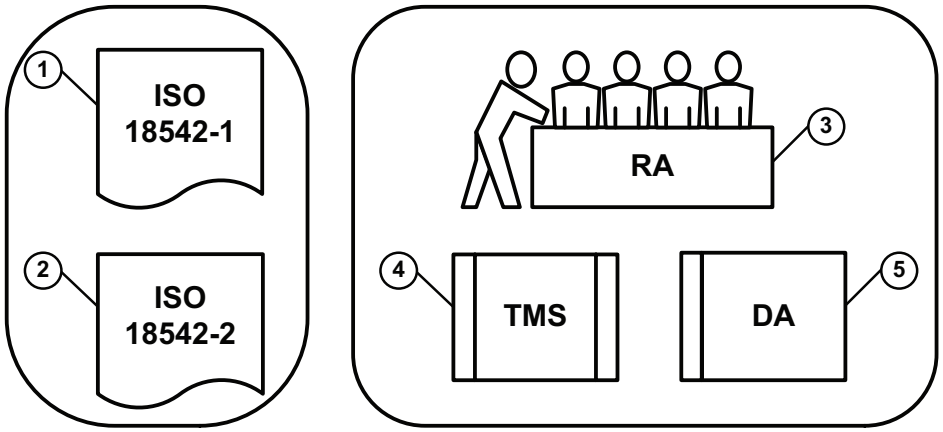
UC use case

VM vehicle manufacturer

4 Standard and implementation

4.1 Overview of ISO 18542

An overview describing the framework of ISO 18542 and its constituent Parts 1 and 2 is shown in Figure 1.



Key

1 ISO 18542-1: process specification to develop and maintain an agreed automotive RMI terminology

2 ISO 18542 2: standardized process implementation specification including requirements, and Registration Authority

3 Registration Authority – terminology review group (TRG)

4 terminology management system (TMS)

5 digital annex (DA): agreed automotive RMI terminology

NOTE As illustrated in the figure, a distinction is made between ISO 18542-1 and ISO 18542-2, and the digital annex as an artefact resulting from the standardized process. The digital annex will be published for the end user.

Figure 1 — Overview of the elements of ISO 18542

This part of ISO 18542 requires a TMS and a Registration Authority to provide a digital annex.

5 Standardized RMI terminology - General information and overview

5.1 Fundamental principles

There are a number of agreed fundamental principles that underpin this document. An appreciation of these principles is important to understanding the objective of the standard, and, how this part of the standard helps to achieve this objective.

The key principles are:

— The agreed VM RMI terminology development is an on-going task not constrained by the timescales for development of this standard.

— VMs will not be required to change their internal terminology or their VM RMI systems, to meet this standard. They may choose to conduct a mapping exercise whereby the agreed term will get mapped to an internal term to facilitate IOs in searching the VM RMI system.

— The terminology sources to be agreed are derived from existing VM terminology.

— All proposals submitted by a VM for an agreed new term are to be submitted in US-English.

— All proposals submitted by the IO nominated person as a result of the feedback process for existing terms are to be submitted in US English.

— The VM terminology provided for RMI and its maintenance is the responsibility of the VM.

— IO representatives (up to two) will participate as reviewers in the terminology definition process.

— The primary user for the agreed terminology is the individual end user of the VM RMI system.

— VMs are only required to support terminology mapping for languages for which a digital annex is in existence and if they provide this language to their ARs.

— Once a term has been agreed and mapped, this Term shall not change except in cases where there has been a fundamental misunderstanding of the engineering concept. Therefore only requests for new terms are allowed.

5.2 Scope of the agreed VM RMI terminology

The process defined in this standard is focused on terms convenient for searching automotive RMI in a VM RMI system according to use case 4.2 in ISO 18541-1.

As an implication, the granularity of the RMI terminology shall be at the level of main components or assembly parts that can be removed and re-fitted. Elementary parts, e.g. screws, seals, etc. are not referred to in the terminology. A search based on elementary parts would often deliver no results. Elementary parts usually do not appear in titles or tags of RMI documents.

It is expected, that the number of agreed terms in the digital annex will be moderate (i.e. initially this is expected to be of the order of 1 000 terms). The set of agreed terms will be the result of a balanced trade-off between level of detail and such aspects as usability and search efficiency for the user.

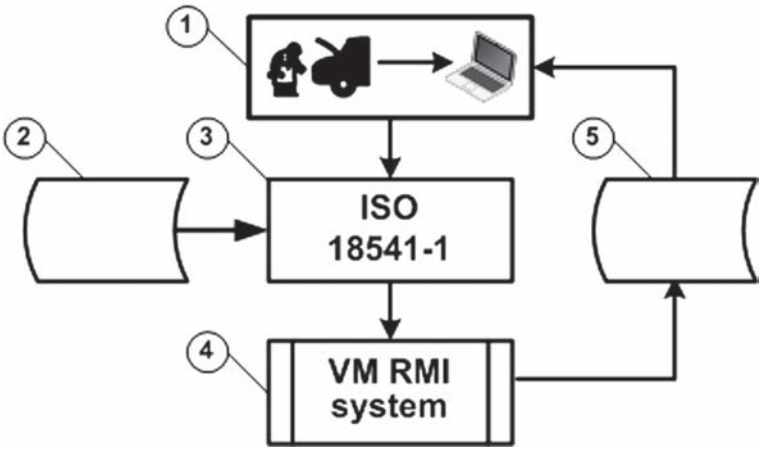
In order to maintain the integrity of the digital annex, abbreviations and acronyms will not be permitted. The main reasons for this are that abbreviations and acronyms can be misunderstood and misleading in the reference source language of US-English.

EXAMPLE AC = Air Conditioning, Air Compressor, Air Conditioner, Acceptance Criteria, Air Cooled, Active Component, Authentication Code, Adjacent Channel, Analogue Control, Alignment Check, Alternating Current, Antenna Controller, Atmospheric Correction. These are some of approximately 500 definitions for AC alone.

Their translation into all defined search languages would expand the digital annex through proliferation of Terms and lead to further misunderstandings and confusion.

5.3 Usage of the RMI terminology in the context of the RMI system

Figure 2 describes the scenario for searching in the VM RMI system with an agreed term. It is assumed that the IO end user has already followed all of the steps necessary to reach the point of searching the required information: registration, log-in, payment, etc. The IO end user enters the agreed term and gets the matching documents from the VM RMI system.



Key

1 independent operator: end user searching for information on any VM Euro 5 or later vehicle
2 term in the digital annex
3 ISO 18541 1: Request under UC 4.2: UC 5.1 – Workshop Procedures, UC 5.2 – Wiring Diagrams, UC 5.3 – Technical Service Bulletins
4 VM RMI system
5 response from VM RMI system

Figure 2 — Independent operator search showing the role of RMI terminology

5.4 Implementation aspects of the process

The process users will be supported in their work by an RMI TMS according to the process implementation requirements in ISO 18542-2.

The process by which terms are agreed and published will be mirrored in the workflow of a TMS.

Translation shall be based on relevant international standards for translation quality which ensure that all necessary information in the source language is included for unambiguous understanding of the term. The translator is required to do the necessary target language research. If it is decided not to carry out the term translation within the TMS, then it is recommended that the translation service provider use a separate translation memory in order to translate term definitions and context attributes in a consistent way.

6 TMS use case overview

6.1 Use case clusters

The agreed terminology will be created and managed in accordance with the process defined in the use cases below.

Table 1 provides an overview of the main use case clusters.

Figure 3 illustrates use case clusters and associated use cases overview.

The detailed definition of each use case is defined in Clause 8.

Table 1 — Main use case clusters

No.	Main title of use case cluster	Brief description
1	Administration	The use cases belonging to this cluster describe: — Register for use of the TMS — Login — User administration — TMS scripts — TMS maintenance — TMS technical support — TMS operation and maintenance — TMS reports — Change Control Board
2	Terminology interrogation	The use cases belonging to this cluster describe how to: — View/Browse [the terminology] — Search with parameters [in terminology]
3	Term proposal process	The use cases belonging to this cluster describe: — Term proposal and feedback — Term evaluation — Term review — Term release
4	Term translation process	The use cases belonging to this cluster describe: — Order for translation — Term translation — Translated term “released”
5	Terminology output provided for VM use	The use cases belonging to this cluster describe how to: — Provide output for VMs — Download for VMs
6	Publish terminology output for digital annex	The use cases belonging to this cluster describe how to: — Publish terminology output for the digital annex

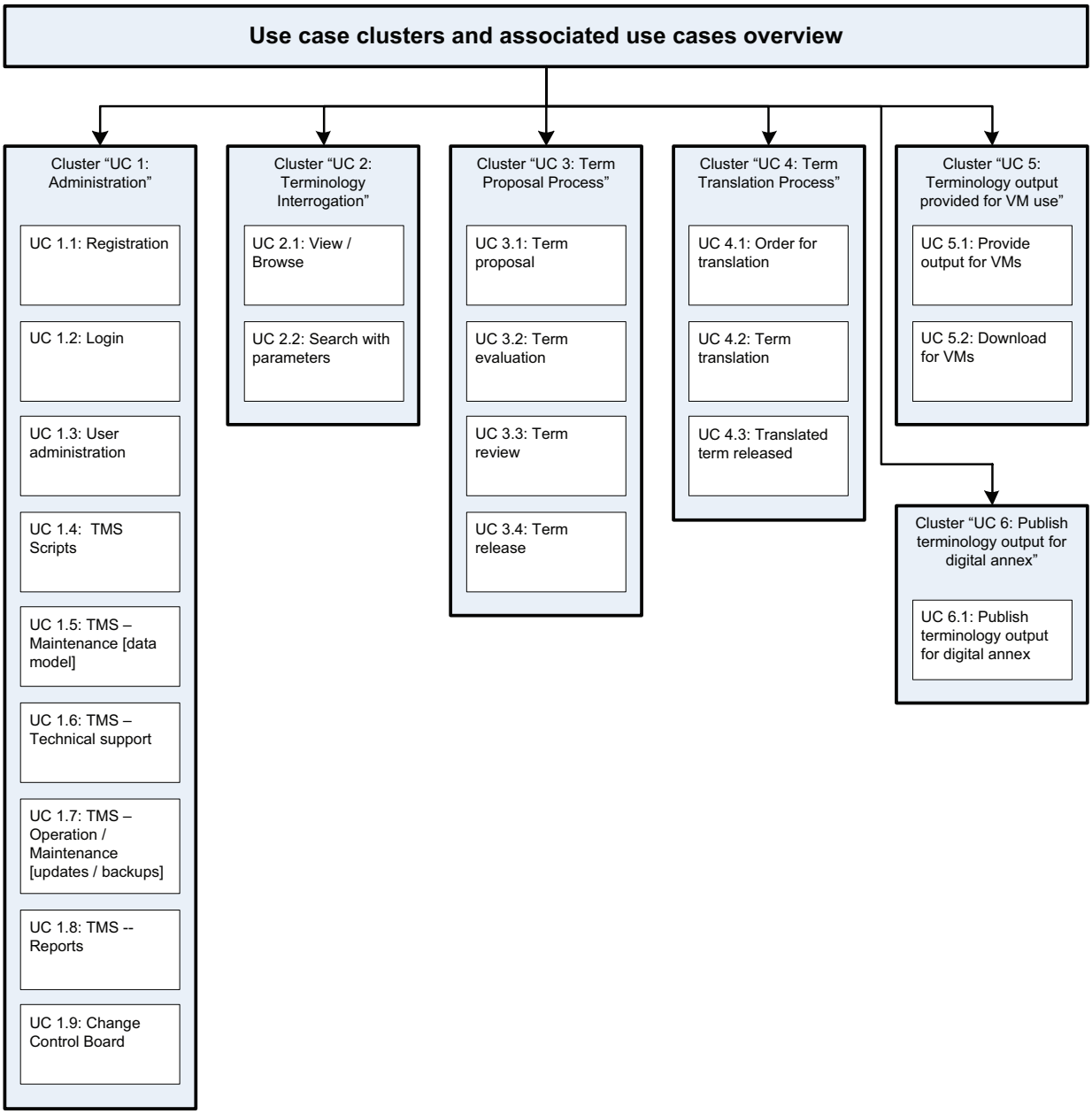


Figure 3 — Use case clusters and associated use cases overview

7 Process and object descriptions

7.1 Process users

The users of the TMS will be those terminology experts appointed to manage the agreed terminology and dedicated IO terminology experts (maximum of two) appointed to participate in the term feedback and review process.

The following provides descriptions of the process users:

— TMS Administrator: administrates the TMS and provides basic task support.

— Authorized user: a person who has applied for, been accepted and registered to access the system for the actions and levels in the process for which they are authorized.

— Terminology manager: a terminologist with Super User permissions who manages the content of the TMS. The terminology manager decides if a proposal is new (no synonym), corresponds to guidelines, checks completeness and correctness of the proposal and corrects the proposal if necessary.

— VM nominated person: a person who systematically studies and analyses the labelling or designating of terms/entities belonging to one or more automotive subject fields or domains for the purpose of proposing new Terms.

— IO nominated person: a person who systematically studies and analyses the labelling or designating of terms/entities belonging to one or more automotive subject fields or domains for the purpose of proposing Terms arising out of the feedback process.

— Terminology reviewers: decide if a proposed term corresponds to guidelines (e.g. granularity) and vote upon term approval.

— Translators: translate the US-English term to defined target languages.

— Registration Authority (RA) employees: have read-only access rights to the TMS allowing them to monitor the content on behalf of the RA. Additionally an RA employee may be assigned other roles and rights related to the operation and administration of the TMS where appropriate.

7.2 Process objects

The following provides descriptions of the various process objects:

— Proposal: proposes a new term in US-English including additional information (date, description, etc.).

— Rejection: rejects a proposal because the term is not based on guidelines to be developed in ISO 18542-2 for the creation of a term or is a synonym of available terms in the digital annex.

— Evaluated term, evaluated term proposal: a term evaluated by the terminology manager and declared ready for review.

— Agreed term in US-English: a term approved by the reviewers in the review process and classified as an agreed term in the TMS. An agreed term is ready for translation.

— Released term in US-English: a term released by the terminology manager for translation.

— Translated term in a language: a translation of a released US-English term existing in a defined language.

— Released entity: an entity with the US-English term in status 'released' and existing as a translated term for all defined target languages.

— Communicated entity: an entity and the corresponding terms are available for download and release in the digital annex.

8 TMS terminology use case definition

8.1 UC1 User Registration, User Administration, TMS Administration and Change Control Board

8.1.1 UC 1.1 Administration – Register for use of the TMS

Table 2 defines the UC 1.1 Administration – Register for use of the TMS.

Table 2 — UC 1.1 Administration – Register for use of the TMS

Actor	TMS Administrator

Table 2 *(continued)*

Goal	— User administration — Evaluate applications for access to terminology — Assign roles/rights
Use Case input	User application data: — name — the reason for the application — roles and rights applied for Further input may be required due to local legislation or to enable a higher level of service.
Use Case output	— Approval of application – Access level and permissions are granted — Username / password / role /access information — Rejection / denial of application
Brief description	— The process provides a facility to register a new user with Terms and Conditions of usage (access level and rights, Username, Password). — The TMS Administrator validates the identity and the legitimacy of the requester. — The requester formally agrees to the Terms and Conditions for use of the TMS. — The administrator approves the applicant as a user and determines the appropriate access level and communicates this to the user. — The system provides the means to assign user ID and an initial password. — Pre-requisites for registration shall be defined, agreed and used by all approved users. NOTE The registration process may take place outside the TMS.

8.1.2 UC 1.2 Administration – Login

Table 3 defines the UC 1.2 Administration – Login.

Table 3 — UC 1.2 Administration – Login

Actor	All authorized users
Goal	To log-in and gain appropriate access to the TMS
Use Case input	Valid username and password
Use Case output	Successful access to the system at the authorized access level
Brief description	— The TMS processes the user input to authenticate and authorize the user. — After a successful authentication, the first authorized User-specific navigation level is displayed where Users are provided with functionality appropriate to their user permissions.

8.1.3 UC 1.3 Administration – User administration

Table 4 defines the UC 1.3 Administration – User administration.

Table 4 — UC 1.3 Administration – User administration

Actor	— Authorized user — TMS Administrator
Goal	To maintain user data and access levels
Use Case input	Request for upgrading / downgrading of permissions
Use Case output	Updated user data
Brief description	The system will provide a facility to an authorized user to update their user data, and to the TMS administrator to upgrade / downgrade permissions and access levels or delete users.

8.1.4 UC 1.4 Administration – TMS scripts

Table 5 defines the UC 1.4 Administration – TMS scripts.

Table 5 — UC 1.4 Administration – TMS scripts

Actor	— TMS Administrator — Change Control Board
Goal	— Scripts for import / export — Change request by the CCB
Use Case input	— Request for import / export — Description of structure / contents — Frequency (once / regular / automatic schedule)
Use Case output	Updated / new script
Brief description	— Evaluation of change requests — Maintenance of export scripts (VM download, digital annex) and import scripts (if translation out of TMS) is provided via a translation memory.

8.1.5 UC 1.5 Administration – TMS maintenance

Table 6 defines the UC 1.5 Administration – TMS maintenance.

Table 6 — UC 1.5 Administration – TMS maintenance

Actor	— TMS Administrator — Change Control Board
Goal	Maintenance of data model
Use Case input	Request for data model change by the Change Control Board – New field, change of usage of a field, content of configuration or pick list.
Use Case output	Updated system / new script or denied change request
Brief description	— Evaluation of a change request — Maintenance of a data model (e.g. a change of a data model or configuration such as a new language or minor structure changes)

8.1.6 UC 1.6 Administration –TMS technical support

Table 7 defines the UC 1.6 Administration – TMS technical support.

Table 7 — UC 1.6 Administration – TMS technical support

Actor	— TMS Administrator — All authorized users
Goal	Technical support.
Use Case input	— Request for support (Ticket / Call) — Change request (technical, content)
Use Case output	— Resolution — Change request
Brief description	Technical support function which logs and manages reported problems, change requests and ensures an appropriate outcome.

8.1.7 UC 1.7 Administration – TMS operation and maintenance

Table 8 defines the UC 1.7 Administration – TMS operation and maintenance.

Table 8 — UC 1.7 Administration – TMS operation and maintenance

Actor	— TMS Administrator — Change Control Board
Goal	Operation / maintenance (updates, back-ups, etc.) at an agreed level of availability
Use Case input	— Monitoring of database performance and availability — Responsibility for back-up management — Responsibility for update management
Use Case output	— Overall availability — Change request
Brief description	TMS administration to ensure an effective, efficient and timely TMS and conduct scheduled maintenance and back-up.

8.1.8 UC 1.8 Administration – TMS reports

Table 9 defines the UC 1.8 Administration – TMS reports.

Table 9 — UC 1.8 Administration – TMS reports

Actor	TMS Administrator
Goal	Generate timely and accurate reports as required upon request by a user.
Use Case input	— Request for report — Regularly scheduled report
Use Case output	The requested / required report
Brief description	A TMS Administrator will ensure scheduled reports are generated and that additional report requests are facilitated where appropriate.

8.1.9 UC 1.9 Administration – Change Control Board

Table 10 defines the UC 1.9 Administration – Change Control Board.

Table 10 — UC 1.9 Administration – Change Control Board

Actor	Change Control Board
Goal	Adjudicate on change requests
Use Case input	Change Requests
Use Case output	— Decisions — Denials of change requests — Approvals
Brief description	The Change Control Board will review system change requests and make appropriate decisions as to whether they should be implemented or not.

8.2 UC2 Terminology Interrogation

8.2.1 UC 2.1 Terminology Interrogation – View / Browse

Table 11 defines the UC 2.1 Terminology Interrogation – View / Browse.

Table 11 — UC 2.1 Terminology Interrogation – View / Browse

Actor	— TMS Administrator — VM nominated person — Terminology reviewers (VM / IO) — Terminology manager — Translator
Goal	Research in released terminology in all VM languages
Use Case input	Per user request
Use Case output	Contents
Brief description	— Provide an interface that will allow an authorized user to be able to browse existing terminology in all available languages. — A user should be able to see the terms, in a user-friendly GUI in US-English, within an overall contextual hierarchy.

8.2.2 UC 2.2 Terminology Interrogation – Search with parameters

Table 12 defines the UC 2.2 Terminology Interrogation – Search with parameters.

Table 12 — UC 2.2 Terminology Interrogation – Search with parameters

Actor	— TMS Administrator — VM nominated person — Terminology reviewers (VM / IO) — Terminology manager — Translator
Goal	Research in released terminology in all VM languages
Use Case input	— Search term — Search term with wildcards — Filter expression or attribute, etc.
Use Case output	Search result
Brief description	Provide a user interface to enable searching by single term or wildcard: — The user should be able to perform the search in one of the available language contents. — The user should be able to view the search results for all available languages. — The user should be able to use a filter for the contents. — If a user enters a search term that is a rejected term, the user may view the relevant information out of the comments. — A user should be able to view all contextual / note information associated with the entered search term.

8.3 UC 3 Term proposal

8.3.1 UC 3.1 Term proposal – Term proposal and feedback process

8.3.1.1 UC 3.1.1 Term proposal – Term proposal process

Table 13 defines the UC 3.1.1 Term proposal process.

Table 13 — UC 3.1.1 Term proposal process

Actor	VM nominated person
Goal	Proposal of a new terminology term
Use Case input	Proposal for term in US-English and additional information (in accordance with the data model)

Table 13 *(continued)*

Use Case output	Term proposal according to process data model with new entity and term with a status of "proposed".
Brief description	— The VM source for a new terminology term request might be as a result of a query arising from a search in a VM RMI system or as a result of RMI development. — The VM nominated person seeks to validate the term by searching for equivalent proposals, correct granularity and, if necessary, completes a proposal form according to the terminology proposal guidelines.

8.3.1.2 UC 3.1.2 Term proposal – Term feedback proposal process

Table 14 defines the UC 3.1.2 Term feedback proposal process.

Table 14 — UC 3.1.2 Term feedback proposal process

Actor	IO nominated person
Goal	Proposal of a missing term from existing terminology
Use Case input	Proposal for term in US-English and additional information (in accordance with the data model) based on feedback
Use Case output	Term proposal according to process data model with new entity and term with a status of "proposed".
Brief description	— The IO source for a terminology term request is as a result of a query arising from the feedback user group. — The IO nominated person validates the term by searching for equivalent proposals, correct granularity and, if necessary, completes a proposal form according to the terminology proposal guidelines.

8.3.2 UC 3.2 Term proposal process – Term evaluation

Table 15 defines the UC 3.2 Term proposal process – Term evaluation.

Table 15 — UC 3.2 Term proposal process – Term evaluation

Actor	Terminology manager
Goal	Evaluate proposed terminology term
Use Case input	Proposal
Use Case output	— Where accepted as a potential addition, prepare for vote with a status of "evaluated" for entity and term. — Where not accepted as a potential addition, reject proposal with explanatory comment with resulting entity and proposed term rejected with a status of "rejected"
Brief description	Terminology manager adjudicates if a proposal: — Is new (there is no synonym) — Corresponds to terminology guidelines for new terms — Checks completeness and correctness of proposal, and — Corrects the proposal if necessary

8.3.3 UC 3.3 Term proposal process – Term review

Table 16 defines the UC 3.3 Term proposal process – Term review.

Table 16 — UC 3.3 Term proposal process – Term review

Actor	Terminology reviewers (VM / IO)
Goal	Achieve agreement on the proposed new term

Table 16 *(continued)*

Use Case input	Evaluated proposal
Use Case output	— Where accepted for addition, approval of a term in US-English with a status of "agreed for US-English term" — Where not accepted, rejected with explanatory comments with resulting entity and term with a status of "rejected"
Brief description	Evaluation also includes modification, if proposal does not meet the guidelines for: — Quality (naming, comprehensibility) — Scope (granularity) If after modification, a term corresponds to an existing term, the proposal will be rejected.

8.3.4 UC 3.4 Term proposal process – Term release

Table 17 defines the UC 3.4 Term proposal process – Term release.

Table 17 — UC 3.4 Term proposal process – Term release

Actor	Terminology Manager
Goal	Provide released Terms in US-English
Use Case input	Agreed term in US-English
Use Case output	Term released in US-English with a status of "Released in US-English"
Brief description	Released as an agreed term in the TMS and ready for translation.

8.4 UC 4 Term translation process

8.4.1 UC 4.1 Term translation process – Order for translation

Table 18 defines the UC 4.1 Term translation process – Order for translation.

Table 18 — UC 4.1 Term translation process – Order for translation

Actor	Terminology manager
Goal	Order issued for translation
Use Case input	Released new term in US-English
Use Case output	Issue of an order (notification and/or package) with target language terms with a status of "to translate".
Brief description	The terminology manager decides if terms are to be provided for translation depending on the number or urgency (the publication date of the next digital annex) of already scheduled terms.

8.4.2 UC 4.2 Term translation process – Term translation

Table 19 defines the UC 4.2 Term translation process – Term translation.

Table 19 — UC 4.2 Term translation process – Term translation

Actor	Translator
Goal	Translation of released US-English term[s] into defined target languages
Use Case input	The released term in US-English plus a translation order

Table 19 *(continued)*

Use Case output	Terms in all defined target languages with a status of “translated”
Brief description	— Translation within the system or based on exported files — Translation to be according to international standards for translation quality (e.g. SAE J2450, EN 15038)

8.4.3 UC 4.3 Term translation process – Translated term released

Table 20 defines the UC 4.3 Term translation process – Translated term released.

Table 20 — UC 4.3 Term translation process – Translated term released

Actor	Terminology manager
Goal	Provide released entity with terms into all defined target languages
Use Case input	Released terms in all defined target languages
Use Case output	Released entity / entities with all defined target languages with a status of “released”
Brief description	When all terms have been translated into the defined target languages, the terminology manager sets these target terms to the status “released”.

8.5 UC5 Terminology output provided for VM use

8.5.1 UC 5.1 Terminology output provided for VM use – Provide output for VMs

Table 21 defines the UC 5.1 Terminology output provided for VM use – Provide output for VMs.

Table 21 — UC 5.1 Terminology output provided for VM use – Provide output for VMs

Actor	TMS Administrator
Goal	To provide the new terms to the VMs for the purpose of mapping
Use Case input	Released terms in all required languages
Use Case output	Mail notification of entities released and with a status of “communicated”
Brief description	— The mail informs a VM that released new entities are available — With the sending of the mail, the new entities receive the status “communicated”

8.5.2 UC 5.2 Terminology output provided for VM use – Download for VMs

Table 22 defines the UC 5.2 Terminology output provided for VM use – Download for VMs.

Table 22 — UC 5.2 Terminology output provided for VM use – Download for VMs

Actor	VM nominated persons
Goal	Obtain available new Terms in support of ISO 18541-1 UC 4.2
Use Case input	Released terms in all required languages
Use Case output	Downloaded terminology in format[s] to be developed
Brief description	The terminology is provided for download in formats specified by the system requirements to be defined in ISO 18542-2

8.6 UC 6 Publish terminology output for digital annex

8.6.1 UC 6.1 Publish terminology output for digital annex

Table 23 defines the UC 6.1 Publish terminology output for digital annex.

Table 23 — UC 6.1 Publish terminology output for digital annex

Actor	TMS Administrator
Goal	To provide timely updates for the terminology digital annex
Use Case input	Released terms in all agreed languages with Entity status “communicated”
Use Case output	Complete terminology with a status of “published”
Brief description	The terminology is provided for download in formats specified in the system requirements.

Annex A
(informative)

Terminology guidelines - Guidelines for selecting and creating terms

A.1 Objective of the terminology guidelines

The objectives of the terminology guidelines are:

— To describe the structure of the digital annex, defined in ISO 18541-1 as the published output of the process.

— To give rules for selecting, creating and publishing terminology for searching repair and maintenance information in a VM RMI system according to the process defined in ISO 18542-1 and implemented following the system requirements in the former sections of this standard. The terminology guidelines should serve as an orientation for all users who submit and review term proposals according to the process defined in ISO 18542-1.

The objective of the terminology guidelines follows the purpose of the standardized search terminology itself.

The purpose of the standardized search terminology is to support searching for information in the RMI systems; VM content shall only be "mapped" to this terminology. The set of terms has to be sufficient to support efficient searching for RMI for the entire vehicles of all VMs in a concise and useful way. Therefore a term should be specific enough to avoid misunderstanding and/or too numerous a hit list. And it should be general enough in order to describe a general functional concept and not an individual production variant of a manufacturer, material or production type.

The following guidelines are designed to outline the principal idea of the search terminology content and to facilitate the initial filling and the following maintenance of the terminology. However, they might need revision based on the experiences made during the initial filling and maintenance process.

The terminology for the specific objective of this standard will only be a subset of the terminology in the area of repair and maintenance information for automotive vehicles. Nevertheless the basic principles for repair and maintenance information will also be valid for this reduced set of terms.

These guidelines assume that the users are well-skilled terminologists. It is not the purpose of these guidelines to provide the basic knowledge for terminology work, but only to add a few specific rules and heuristics for the special purpose of this standard.

A.2 Structure of the digital annex

The digital annex will be a list of terms for each supported language, with neither synonyms nor acronyms, divided into main groups (Powertrain, Chassis, Body, etc.).

Within each group there will be an alphabetical list of terms belonging to it.

In consideration of future extensions for Motorcycles, Agricultural, Machineries and other types of specific vehicles, different digital annexes might be created for these specific targets. The Registration Authority will need to decide if the terms for the creation and maintenance of the different digital annexes are managed in separate instances of the TMS or as an alternative in one instance of the TMS, but with specific attributes which allow the assignment to separate DA tracks.

A.3 Guidelines for the selection or creation of terms

These guidelines will be applied for the initial filling of the digital annex and for the development of new versions. In the latter case, new terms will only be created in cases where:

— there is no established term for the concept in question;

— an existing term conflicts with one or more of these terminology guidelines;

— an existing term causes frequent misunderstandings.

If several term proposals exist for the same concept, the term that fulfils the greatest number of terminology guidelines shall be chosen.

A.4 Content criteria for the inclusion of Terms in the digital annex

Integrated in the digital annex are appropriate terms with relation to searching VM RMI which belong to the following categories:

— general technical terms (automotive technology and some terms based on related technical vocabularies such as engineering, telecommunications, electrical engineering, etc.);

— components;

— units/devices;

— systems;

— functions;

— operating fluids.

NOT included in the digital annex are terms of the following categories:

— General or colloquial terms;

EXAMPLE interruption, event

— Marketing terms or combinations of marketing terms and general terms;

EXAMPLE “Pre-Safe function”

— Basic physical quantities and chemical elements unrelated to vehicles.

EXAMPLE force, neon

A.5 Linguistic criteria for term selection

The individual linguistic criteria for selecting preferred terms are described below. Depending on the term, the individual criteria can be weighted differently, e.g. frequency can take precedence over a designation used in standards; clarity over frequency.

Stand-alone value/motivation/clarity

A term supporting a search needs a standalone value. Therefore, only nouns or extended groups of nouns are to be included in the digital annex, but **NOT**

— verbs,

— adjectives,

— abbreviations,

— acronyms.

Priorities for creating or selecting terms (nouns or extended groups of nouns) in order to achieve standalone clarity are:

— function (e.g. after treatment as in “exhaust after treatment system”),

— physical quantity (e.g. temperature in “temperature sensor”),

— medium (e.g. fuel in “fuel pump”).

Terms belonging to the following categories contradict the rules for standalone value and clarity and therefore are **NOT** included in the digital annex:

— Manufacturer designations and trademarks should not be part of a term.

NOT Simmerring seal (named after the inventor)

BUT Radial shaft sealing ring (a term according to function/design)

— Terms based on form or material, since this information is subject to change (but the function remains the same).

NOT Teflon ring

BUT Sealing ring

— Terms describing conditions, procedures, activities or adjectives without a noun.

Terms should reflect the most important features of the definition. This is why terms based on function are preferable, since they have a higher stand-alone potential.

Granularity

— RMI terminology shall follow a concept of “main functions and components” to cover job activities for vehicle repair and maintenance. Therefore, it will not contain elementary parts, such as screws or nuts.

— The term should be as clear as possible to avoid misunderstandings. Depending on the number of similar terms in a subject area, the designation may need to be more precise, because a term is used standalone for search and without context.

NOT Filler pipe, oil filler pipe

BUT Transmission oil filler pipe, engine oil filler pipe

Frequency of use

— When several suitable terms are available, the term that is more frequently used in the documentation of the VMs should be chosen.

Correctness based on linguistic logic

NOT Electronic control unit bracket

BUT Bracket for the electronic control unit

NOTE It is the control unit that is electronic, not the bracket. Based on a linguistic logic, *electronic* refers to the *bracket* in the first case, and not the *control unit*.

Neutrality or positive connotations

— Terms with neutral or positive connotations should be used; undesirable secondary meanings, or negative connotations, should be avoided.

NOT Displacement

BUT Adjustment

NOTE Displacement has a negative connotation, i.e. it implies that a component or device is shifted from a correct position to an incorrect position. In contexts that describe the process of moving a part to a specific location or position, adjustment should be used.

EXAMPLE Seat adjustment, belt adjustment, steering column adjustment

Consistent terms

— If similar terms already exist in the digital annex, new terms should be consistent with existing terms.

NOT Windshield and windshield washer, but windscreen heater

BUT Windshield, windshield washer and windshield heater

Brevity

— When two equally comprehensible and precise terms exist, the shorter term should be chosen.

NOT Sealing compound

BUT Adjustment

Make sure that the term remains unambiguous. In individual cases, shorter terms may not be sufficiently clear for translation purposes and could lead to misunderstandings.

Avoiding creative metaphors

— Creative metaphors provide many possibilities for interpretation, and can lead to misunderstandings. They should therefore not be used when developing new terms.

NOT Cable balcony (balcony is the metaphoric term)

BUT Cable harness distributor

Nouns with certain suffixes

— In English, many nouns ending in "-ment", "-tion" and "-ing" can designate both a component and a process (e.g. adjustment, recirculation, preheating). To maintain clearer distinctions, nouns with the "-ment", "-tion" or "-ing" suffix should only be used to denote processes. Components should be given a more specific designation, which may, however, include words ending in "-ment", -"tion" or "-ing" as attributes.

NOT Preheating system

BUT Preheating

A.6 Orthography guidelines

As a general rule, ISO 18542 uses the American English orthography according to the following dictionaries:

— Merriam-Webster, Advanced Learner's English Dictionary;

— Longman Dictionary of Contemporary English;

— Oxford Advanced Learner's Dictionary.

Hyphenation

— Hyphens are generally used with compound words that contain four or more components.

EXAMPLE Compressed-air brake system

Hyphenation of numbers and units

— Potential forms are: 12-V rated voltage or 12V rated voltage. Both forms are permissible.

Using and writing numbers in terms

— In terms, numbers are written as digits, and not as words.

NOT Twelve-speed transmission

BUT 12-speed transmission

Letter case for term entries

— Terms entered in the database should be written completely in lower case letters unless the term contains a proper name or particular words or letters that for linguistic or stylistic reasons are always to be written in the upper case.

A.7 Grammatical criteria for term proposals

Terminology content has to be as concise as possible; therefore:

— terms are to be entered in singular cardinality, with the exception of terms which exist only as plural;

— concerning gender, the respective data model field will contain all necessary variants for selection;

— Terms are to be entered in nominative case only, so no language-specific case problems have to be respected.

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