

| <b>Document Title</b>      | Predefined Names in AUTOSAR |
|----------------------------|-----------------------------|
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| Part of Standard Release | 4.4.0            |

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| Date Release Changed by |       |                                  | Description   |
| 2018-10-31              | 4.4.0 | AUTOSAR<br>Release<br>Management | Removed reference to     TR_SafetyConceptStatusReport   |
| 2017-12-08              | 4.3.1 | AUTOSAR<br>Release<br>Management | <ul><li>Include abbreviations for Name<br/>Spaces</li><li>Include Mentioned Class Tables</li></ul>                          |
| 2016-11-30              | 4.3.0 | AUTOSAR<br>Release<br>Management | Include abbreviations for PDEP  |
| 2015-07-31              | 4.2.2 | AUTOSAR<br>Release<br>Management | Include abbreviations for Acceptance Tests  |
| 2014-10-31              | 4.2.1 | AUTOSAR<br>Release<br>Management | <ul> <li>Complete list of Module Abbreviation<br/>for each AUTOSAR document</li> <li>Include additional keywords</li> </ul> |
| 2014-03-31              | 4.1.3 | AUTOSAR<br>Release<br>Management | editorial changes   |
| 2013-10-31              | 4.1.2 | AUTOSAR<br>Release<br>Management | harmonization of keywords with List of Basic Software Modules   |
| 2013-03-15              | 4.1.1 | AUTOSAR<br>Administration        | <ul><li>editorial changes</li><li>harmonization of keywords with other documents</li></ul>                                  |
| 2011-12-22              | 4.0.3 | AUTOSAR<br>Administration        | Initial release   |



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## **Table of Contents**

| 1 | Introduction  | 5  |
|---|---|----|
| 2 | [VirtualModules] Virtual Modules  | 6  |
| 3 | [InformationCategories] AUTOSAR Information Categories                    | 6  |
| 4 | [DocumentAbbreviations] AUTOSAR Document Abbreviations for Trace Prefixes | 9  |
| 5 | [NamespaceAbbreviations] AUTOSAR Name Spaces                              | 15 |
| Α | Mentioned Class Tables  | 17 |



## References

- [1] List of Basic Software Modules AUTOSAR\_TR\_BSWModuleList
- [2] XML Specification of Application Interfaces AUTOSAR\_MOD\_AISpecification
- [3] Specification of ECU Configuration Parameters (XML) AUTOSAR\_MOD\_ECUConfigurationParameters
- [4] Standardization Template AUTOSAR\_TPS\_StandardizationTemplate
- [5] Generic Structure Template AUTOSAR\_TPS\_GenericStructureTemplate
- [6] Interoperability of AUTOSAR Tools
  AUTOSAR TR InteroperabilityOfAutosarTools



#### 1 Introduction

This document describes various predefined names used in AUTOSAR models and documents. The main purpose of this document is to serve as an entry point to find names which are predefined in AUTOSAR beyond the following documents:

- [1] Basic software module list
- [2] Application interfaces
- [3] Ecu configuration parameters

Note that the definitions in this document are also available as AUTOSAR XML model. In this model, the predefined names are represented as Keywords according to [4]. They are represented as tables with the following colums:

shortName: a unique name for the abbreviation, taken from shortName of Keyword

**abbrName:** This is the reserved name itself according to [4]. Note that the name might be rendered with line breaks in order to fit into the table cell. The reserved name in this column never has a white space, so the line breaks shall be ignored.

**longName:** This is the longName for the reserved name (see [5] for details about longName).

**Classification, Description**: This is the list of keyword classifications as referenced e.g. by [TPS\_STDT\_00042] respectively [TPS\_GST\_0017]. In addition to this, desc of the keyword is shown as well in order to understand the purpose of the reserved name.



## 2 [VirtualModules] Virtual Modules

This keyword set defines virtual modules which take the role of module designators in naming conventions but do not exist as e.g. C-implementations.

**[TR\_PDN\_00001] Definition of Virtual Modules** [ This keyword set contains two keyword classifications:

- ModuleDesignator: The abbrName represents a valid module designator defined by AUTOSAR (see [TPS GST 00017] in [5] ).
- AUTOSAR-Document: The shortName represents a module name for the implementation of a specification provided by AUTOSAR (see [TR\_IOAT\_00069] in [6]).

10

| shortName          | abbrName        | longName                                       | Classification, Description  |
|--------------------|-----------------|--|--|
| AlSpecification    | AlSpecification | XML Specification of<br>Application Interfaces | AUTOSAR-Document, Module<br>Designator   |
|                    |                 |  | This represents the Appplication Interfaces.   |
| EcuC               | EcuC            | Ecu Configuration                              | ModuleDesignator   |
|                    |                 |  | EcuC is a pseudo module which defines parameters applicable to all other BSW modules.  |
| GeneralBlueprints  | GenBlpr         | General Blueprints                             | ModuleDesignator   |
|                    |                 |  | Collection of blueprints for AUTOSAR M1 models.  |
| GeneralDefinitions | GenDef          | General Definitions                            | ModuleDesignator   |
|                    |                 |  | This represents general elements that can be applied for both, basic (BSW) and application software (ASW), but for which no explicit AUTOSAR Document is maintained. Example for objects in this virtual module are elements such as life cycle definitions, role definitions etc. |
| V2X                | V2X             | Vehicle-2-X                                    | ModuleDesignator   |
|                    |                 |  | V2X is used as a cluster abbreviation by all cross module types used by the Vehicle-2-X communication modules.   |

**Table 2.1: Virtual Modules** 

# 3 [InformationCategories] AUTOSAR Information Categories

This keyword set denotes abbreviations used e.g. in filenames respectively in trace tags.



[TR\_PDN\_00002] Definition of AUTOSAR Information Categories [ This keyword set contains the following keyword classifications:

- DocumentCategory: The keyword (abbrName) represents a valid category of a document provided by AUTOSAR (see [TPS STDT 00050] in [4] ).
- TraceCategory: The keyword (abbrName) represents a valid category of a traceable text within a document provided by AUTOSAR (see [TPS STDT 00042] in [4] ).
- InternalDocumentCategory: The keyword ( abbrName) represents a valid category of a document internal to AUTOSAR which is not published but still follows the conventions.

10

| shortName | abbrName | IongName                       | Classification, Description   |
|-----------|----------|--------------------------------|---|
| ASWS      | ASWS     | Abstract SWS Software          | DocumentCategory, TraceCategory   |
|           |          | Specification                  | General Specification of AUTOSAR Basic Software Modules                           |
| ATR       | ATR      | Acceptance Test Requirement    | DocumentCategory, TraceCategory   |
|           |          |                                | Specification of requirements for acceptance tests                                |
| ATS       | ATS      | Acceptance Test Specification  | DocumentCategory, TraceCategory   |
|           |          |                                | Test specification and scripts for the execution of acceptance tests              |
| CONC      | CONC     | Concept Document               | DocumentCategory, TraceCategory   |
|           |          |                                | Concept describing planned changes for the next minor or major release            |
| CTCF      | CTCF     | Configuration Settings         | DocumentCategory, TraceCategory   |
|           |          |                                | Configuration settings for the execution of conformance Tests                     |
| CTSP      | CTSP     | Conformance Test Specification | DocumentCategory, TraceCategory   |
|           |          |                                | Test specification and scripts for the execution of conformance tests             |
| EXP       | EXP      | Explanation                    | DocumentCategory, TraceCategory   |
|           |          |                                | Explanatory material discussiong contents already shown in other documents        |
| MMOD      | MMOD     | MetaModel                      | DocumentCategory, TraceCategory   |
|           |          |                                | Modeled contents (a model or generated from a model) on meta level 2 (Meta-Model) |
| MOD       | MOD      | Model                          | DocumentCategory, TraceCategory   |
|           |          |                                | Modeled contents (a model or generated from a model) on meta level 1 (Model)      |
| PD        | PD       | Process Description            | DocumentCategory, TraceCategory   |
|           |          |                                | Description of process applied within AUTOSAR standardization activities          |





| shortName | abbrName | longName                       | Classification, Description  |
|-----------|----------|--------------------------------|--|
| PDEP      | PDEP     | Profile of Data Exchange Point | DocumentCategory, TraceCategory  |
|           |          |                                | Contains models that tailor AUTOSAR specifications and templates for specific data exchange points   |
| PRS       | PRS      | Protocol Specification         | DocumentCategory, TraceCategory  |
|           |          |                                | Specification of Protocols standardized by AUTOSAR   |
| RS        | RS       | Requirement Specification      | DocumentCategory, TraceCategory  |
|           |          |                                | Specification of requirements other than for software specifications   |
| SRS       | SRS      | Software Requirement           | DocumentCategory, TraceCategory  |
|           |          | Specification                  | Specification of requirements for software specifications  |
| SWS       | SWS      | Software Specification         | DocumentCategory, TraceCategory  |
|           |          |                                | Specification of AUTOSAR Software  |
| TMPL      | TMPL     | Template                       | InternalDocumentCategory   |
|           |          |                                | Predefined documentation templates   |
| TPS       | TPS      | Template Specification         | DocumentCategory, TraceCategory  |
|           |          |                                | Specification of AUTOSAR Templates, containing Meta model information, constraints etc.  |
| TR        | TR       | Technical Report               | DocumentCategory, TraceCategory  |
|           |          |                                | A general technical report describing arbitrary AUTOSAR related topics   |
| UC        | UC       | Use Case Specification         | TraceCategory  |
|           |          |                                | Specification of use cases from which requirements are derived. Note that there are documents which maintain the use cases in their requirement spec. So this documentCategory may exist, even if it is not an own artifact. |
| ZAUX      | ZAUX     | Auxilary material              | InternalDocumentCategory   |
|           |          |                                | Auxillary files used internally for the creation of the standard. May be merged with ZSUPP.  |
| ZGEN      | ZGEN     | Generated intermediate         | InternalDocumentCategory   |
|           |          | material                       | Generated intermediate products which are maintained in the SCM system of AUTOSAR and used internally for the creation of the standard   |
| ZSUPP     | ZSUPP    | Supplemental material          | InternalDocumentCategory   |
|           |          |                                | Supplementary material used internally for the creation of the standard  |

**Table 3.1: AUTOSAR Information Categories** 



## 4 [DocumentAbbreviations] AUTOSAR Document Abbreviations for Trace Prefixes

These keywords represent the abbreviations to indicate documents e.g. in the requirements tags

**[TR\_PDN\_00003] Document Abbreviations for Trace Prefixes** [ This keyword set contains the keyword classifications:

• **DocumentAbbreviation**: The abbrName represents a valid document abbreviation in tracing tags (see [TPS STDT 00042] in [5] ).

Note that there are cases where one document uses more than one abbreviation (e.g. [SWMC, SWNR], [MCM, MCG, MCA]). There are also cases where one abbreviation is used across multiple documents (e.g. [BSW]). | ()

| shortName             | abbrName | IongName                                   | Classification, Description   |
|-----------------------|----------|--|---|
| AlBodyAndComfort      | AIBC     | Application Interfaces "Body               | DocumentAbbreviation  |
|                       |          | and Comfort"                               | This document explains Application Interfaces for "Body and Comfort".                                     |
| AlChassis             | AICS     | Application Interfaces "Chassis"           | DocumentAbbreviation  |
|                       |          |  | This document explains Application Interfaces for "Chassis".  |
| AlDesignPattern       | AIDPC    | Application Interface Design               | DocumentAbbreviation  |
| Catalogue             |          | Pattern Catalogue                          | This document contains Application Interface Design Pattern Catalogue.                                    |
| AIHMIMultimediaAnd    | AIHMI    | Application Interfaces "HMI                | DocumentAbbreviation  |
| Telematics            |          | Multimedia and Telematics"                 | This document explains Application Interfaces for "HMI Multimedia And Telematics".                        |
| AlOccupantAnd         |          |  | DocumentAbbreviation  |
| PedestrianSafety      |          | "Occupant and pedestrian<br>Safety"        | This document explains Application Interfaces for "Application Interface Occupant and pedestrian Safety". |
| AlPowertrain          | AIPT     | Application Interfaces                     | DocumentAbbreviation  |
|                       |          | "Powertrain"                               | This document document explains Application Interfaces for "Powertrain".                                  |
| AlSpecification       | AISE     | XML Examples of Application                | DocumentAbbreviation  |
| Examples              |          | Interfaces                                 | This represents XML Examples of Appplication Interfaces.  |
| AlUserGuide           | AIUG     | Application Interfaces User                | DocumentAbbreviation  |
|                       |          | Guide                                      | This document aims at explaining all relevant details about the Al Table.                                 |
| ApplicationLevelError | ALEH     | Application Level Error Handling           | DocumentAbbreviation  |
| Handling              |          |  | This document explains the Application Level Error Handling.  |
| AdaptiveNetwork       | ANM      | Adaptive Network Management                | DocumentAbbreviation  |
| Management            |          | Adaptive Platform - to be filled correctty |   |





| shortName                  | abbrName | IongName                    | Classification, Description   |
|----------------------------|----------|-----------------------------|---|
| AdaptivePlatformTypes      | ASR      | ARXML Serialization Rules   | DocumentAbbreviation  |
|                            |          |                             | This document explains how to serialize AUTOSAR models into ARXML files and vice versa.   |
| AutosarModel               | ArModC   | Autosar Model Constraints   | DocumentAbbreviation  |
| Constraints                |          |                             | This document explains Autosar Model Constraints.   |
| ARXMLSerialization         | ASR      | ARXML Serialization Rules   | DocumentAbbreviation  |
| Rules                      |          |                             | This document explains how to serialize AUTOSAR models into ARXML files and vice versa.   |
| ATBM                       | ATBM     | Interaction with Behavioral | DocumentAbbreviation  |
|                            |          | Models                      | This document describes interaction with behavioral models.   |
| BSWAndRTEFeatures          | BRF      | AUTOSAR BSW and RTE         | DocumentAbbreviation  |
|                            |          | Features                    | This document specifies the features of the BSW Architecture and the RTE.   |
| BSW                        | BSW      | Basic Software              | DocumentAbbreviation  |
|                            |          |                             | This abbreviation represents the superset of all BSW software requirement specifications. This means that this abbreviation is used throughout all Basic Software Specifications. |
| BSWModuleDescription       | BSWMDT   | Basic Software Module       | DocumentAbbreviation  |
| Template                   |          | Description Template        | This document specifies how to describe a Basic Software  |
| BSWModuleList              | BSWML    | Basic Software Module List  | DocumentAbbreviation  |
|                            |          |                             | This document lists the BSW modules.  |
| BSWUMLModel Madalina Cuida | BSWUMG   | BSW UML Model Modeling      | DocumentAbbreviation  |
| ModelingGuide              |          | Guide                       | This guideline describes the BSW UML Model modeling.  |
| BSWUML                     | BSWUML   | Basic Software UML model    | DocumentAbbreviation  |
|                            |          |                             | This abbreviation represents the BSW UML model. This means that this abbreviation is used throughout all elements maintained in the BSW UML model.                                |
| BWCStatement               | BWC      | BWC Statement               | DocumentAbbreviation  |
|                            |          |                             | This document describes the backward compatibility statement.   |
| CDDDesignAnd               | CDDG     | CDD Design And Integration  | DocumentAbbreviation  |
| IntegrationGuideline       |          | Guideline                   | This guideline describes the Design and the Integration of CDD.   |
| CommunicationCan           | COMCAN   | Communication on Can        | DocumentAbbreviation  |
|                            |          |                             | Relevant for communication on CAN.  |
| CommunicationFlexray       | COMFR    | Communication on Flexray    | DocumentAbbreviation  |
|                            |          |                             | Relevant for communication on Flexray.  |
| CommunicationLin           | COMLIN   | Communication on Lin        | DocumentAbbreviation  |
|                            |          |                             | Relevant for communication on LIN.  |





| shortName            | abbrName | IongName                       | Classification, Description  |
|----------------------|----------|--------------------------------|--|
| Communication        | COMMGMT  | Communication Management       | DocumentAbbreviation   |
| Management           |          |                                | Relevant for communication management.   |
| CommunicationViaBus  | COMVB    | Communication via a bus        | DocumentAbbreviation   |
|                      |          |                                | Relevant for communication via a bus.  |
| Diagnostic           | DIAG     | Requirements on Diagnostic     | DocumentAbbreviation   |
|                      |          |                                | The goal of AUTOSAR WP Diagnostics and this document is to define to what extent elements of the diagnostic basic software have to be configurable and what preliminaries they shall comply with to meet the tailoring requirements. The handling of the legislated OBD and enhanced Diagnostics shall also be achieved. |
| AdaptiveDiagnostics  | DM       | Adaptive Diagnostics           | DocumentAbbreviation   |
|                      |          |                                | Adaptive Platform - to be filled correctty   |
| ECUConfiguration     | ECUC     | Specification of ECU           | DocumentAbbreviation   |
|                      |          | Configuration                  | This document specifies the technical details of the ECU configuration   |
| ECUConfiguration     | ECUCP    | ECU Configuration Parameters   | DocumentAbbreviation   |
| Parameters           |          |                                | This document describes ECU Configuration Parameters.  |
| EcuModeManagement    | ECUMGMT  | ECU Mode Management            | DocumentAbbreviation   |
|                      |          |                                | Relevant for ECU mode management.  |
| ECUResourceTemplate  | ECUR     | Specification of ECU Resource  | DocumentAbbreviation   |
|                      |          | Template                       | This specifies how to describe<br>Resources of an ECU  |
| ErrorDescription     | ED       | Error Description              | DocumentAbbreviation   |
|                      |          |                                | This document explains the Error Description.  |
| ExecutionManagement  | EM       | Execution Management           | DocumentAbbreviation   |
|                      |          |                                | Adaptive Platform - to be filled correctty   |
| ErrataSheet          | ERSH     | Errata Sheet                   | DocumentAbbreviation   |
|                      |          |                                | This document explains the Errata Sheet.   |
| FrancaIntegration    | FCAINT   | Franca Integration             | DocumentAbbreviation   |
|                      |          |                                | This document describes the Franca Integration.  |
| Features             | Feature  | Feature Specification          | DocumentAbbreviation   |
|                      |          | Acceptance Tests               | Feature Specification of the acceptance tests.   |
| FeatureModelExchange | FMDT     | Specification of Feature Model | DocumentAbbreviation   |
| Format               |          | Exchange Format                | This specifies how to describe the Feature Model Exchange Format.  |
| FreeRunningTimer     | FRT      | Free Running Timer             | DocumentAbbreviation   |
|                      |          |                                | This document describes the Free Running Timer.  |





| shortName                                | abbrName | IongName  | Classification, Description  |
|--|----------|---|--|
| Glossary                                 | GLOS     | Glossary  | DocumentAbbreviation   |
|  |          |   | This document lists all Glossary items.  |
| GenericStructure                         | GST      | Generic Structure Template  | DocumentAbbreviation   |
| Template                                 |          |   | This specifies common aspects applicable to all templates.   |
| Gateway                                  | GTW      | Gateway   | DocumentAbbreviation   |
|  |          |   | This document explains the Gateway.  |
| HealthManagement                         | НМ       | Health Management   | DocumentAbbreviation   |
|  |          |   | Adaptive Platform - to be filled correctty   |
| InteroperabilityOf                       | IOAT     | Interoperability of AUTOSAR   | DocumentAbbreviation   |
| AutosarTools                             |          | Tools   | This document describes various aspects of interoperability of AUTOSAR tools.  |
| InteroperabilityOf                       | IOATS    | Interoperability of AUTOSAR   | DocumentAbbreviation   |
| AutosarTools<br>Supplement               |          | Tools Supplement  | This document contains baseline profiles of data exchange points and examples.   |
| IOHWAbstraction                          | IOHWAB   | IO Hardware Abstraction   | DocumentAbbreviation   |
|  |          |   | This document describes the IO Hardware Abstraction.   |
| InterruptHandling                        | IRH      | Interrupt Handling Explanation  | DocumentAbbreviation   |
| Explanation                              |          |   | This document explains the Interrupt Handling.   |
| SRSLibraries                             | LIBS     | Requirements on Libraries   | DocumentAbbreviation   |
|  |          |   | This document specifies requirements on the AUTOSAR Libraries.   |
| AdaptiveLogAndTrace                      | LOG      | Adaptive Log and Trace  | DocumentAbbreviation   |
|  |          |   | Adaptive Platform - to be filled correctty   |
| LayeredSoftware                          | LSA      | Layered Software Architecture   | DocumentAbbreviation   |
| Architecture                             |          |   | This document describes the Layered Software Architecture.   |
| MainRequirements                         | Main     | AUTOSAR Main Requirements   | DocumentAbbreviation   |
|  |          |   | This document specifies the AUTOSAR main requirements.   |
| AlMeasurement                            | MCAI     | Unique Names for  | DocumentAbbreviation   |
| CalibrationDiagnostics                   |          | Documentation, Measurement<br>and Calibration: Modeling and<br>Naming Aspects including<br>Automatic Generation           | This document discusses how to automatically generate display names for measurement, calibration and diagnostic tools (MCD).   |
| AlMeasurement                            | MCA      | Assumptions in Unique Names   | DocumentAbbreviation   |
| CalibrationDiagnos-<br>tics_Assumptions  |          | for Documentation, Measurement and Calibration: Modeling and Naming Aspects including Automatic Generation                | This keyword reflects the assumptions how to automatically generate display names for measurement, calibration and diagnostic tools (MCD). The keyword is used for document internal tracing       |
| AlMeasurement                            | MCG      | Generation Rules in Unique  | DocumentAbbreviation   |
| Calibration Diagnostics_Generation Rules |          | Names for Documentation,<br>Measurement and Calibration:<br>Modeling and Naming Aspects<br>including Automatic Generation | This keyword reflects the generation rules how to automatically generate display names for measurement, calibration and diagnostic tools (MCD). The keyword is used for document internal tracing. |
|  | •        |   | •  |





| shortName                              | abbrName | IongName  | Classification, Description   |
|--|----------|---|---|
| AlMeasurement                          | MCM      | Modeling Rules in Unique  | DocumentAbbreviation  |
| Calibration Diagnostics_Modeling Rules |          | Names for Documentation,<br>Measurement and Calibration:<br>Modeling and Naming Aspects<br>including Automatic Generation | This keyword reflects the modeling rules of how to automatically generate display names for measurement, calibration and diagnostic tools (MCD). The keyword is used for document internal tracing. |
| AlMeasurement                          | MCR      | Requirements in Unique Names  | DocumentAbbreviation  |
| CalibrationDiagnostics_Requirements    |          | for Documentation, Measurement and Calibration: Modeling and Naming Aspects including Automatic Generation                | This keyword reflects the requirments of how to automatically generate display names for measurement, calibration and diagnostic tools (MCD). The keyword is used for document internal tracing.    |
| MemoryServices                         | MEM      | Requirements on Memory  | DocumentAbbreviation  |
|  |          | Services  | This document specifies requirements on Basic Software Modules of the memory services.  |
| Methodology                            | METH     | AUTOSAR Methodology   | DocumentAbbreviation  |
|  |          |   | This describes the AUTOSAR Methodolgy.  |
| MethodologyModel                       | MethModR | Methodology Model Rules   | DocumentAbbreviation  |
| Rules                                  |          |   | This document describes the Methodology Model Rules.  |
| MiscSupport                            | MICS     | Miscellaneous Support   | DocumentAbbreviation  |
|  |          |   | This document contains miscellaneous support items.   |
| MetaModel                              | MM       | Meta Model  | DocumentAbbreviation  |
|  |          |   | This document describes the Meta Model.   |
| MemoryHWAbstraction                    | MMHWABLY | Memory Hardware Abstraction   | DocumentAbbreviation  |
| Layer                                  |          | Layer   | This document describes the Memory Hardware Abstraction Layer.  |
| ModeManagement                         | MMG      | Mode Management Guide   | DocumentAbbreviation  |
| Guide                                  |          |   | This guideline describes the Mode Management.   |
| ModeMgm                                | ModeMgm  | Mode Management   | DocumentAbbreviation  |
|  |          |   | This document specifies Mode Management in AUTOSAR.   |
| MultiCoreGuide                         | MTCG     | Multi Core Guide  | DocumentAbbreviation  |
|  |          |   | This guideline describes Multi Core.  |
| MethodologyAnd                         | MTG      | General Requirements on   | DocumentAbbreviation  |
| TemplatesGeneral                       |          | Methodology and Templates   | This document has the purpose to collect requirements on Methodology and Templates which are relevant for more than one document.   |
| OperatingSystem                        | OSI      | Operating System Interface  | DocumentAbbreviation  |
| Interface                              |          |   | Adaptive Platform - to be filled correctty  |





| shortName          | abbrName    | ∠∆<br>IongName                      | Classification, Description   |
|--------------------|-------------|-------------------------------------|---|
| Pesistency         | PER         | Persistency                         | DocumentAbbreviation  |
| i esistericy       |             | reisistericy                        | Adaptive Platform - to be filled correctly  |
| PredefinedNames    | PDN         | AUTOSAR PredefinedNames             | DocumentAbbreviation  |
| recemedivantes     | T DIV       | AOTOSATTTedelifiedivalifies         | This document describes various predefined names used in AUTOSAR.   |
| ProjectObjectives  | PO          | AUTOSAR Project Objectives          | DocumentAbbreviation  |
| 110,000.00,000.000 |             | 7.6.7.6.7.1.7.1.0,000. 0.0,000.1.00 | This document specifies the AUTOSAR Project Objectives.   |
| ReferenceBase      | RefBase     | Reference Base                      | DocumentAbbreviation  |
|                    |             |                                     | This document contains Reference Base items.  |
| Requirements       | Requirement | Requirements Acceptance             | DocumentAbbreviation  |
|                    |             | Tests                               | Requirements for the acceptance tests.  |
| ReleaseOverviewAnd | RORH        | Release Overview And Rev            | DocumentAbbreviation  |
| RevHistory         |             | History                             | This document provides a Release Overview and Rev History.  |
| RTE                | RTE         | Runtime Environment                 | DocumentAbbreviation  |
|                    |             |                                     | This document specifies the AUTOSAR Runtime Environment.  |
| SAE                | SAE         | Society of Automotive               | DocumentAbbreviation  |
|                    |             | Engineers                           | This document describes the network standard developed by the Society of Automotive Engineers.                        |
| SafetyExtensions   |             | Specification of Safety             | DocumentAbbreviation  |
|                    |             | Extensions                          | This document specifes how to describe the safety relevant properties and requirements of an AUTOSAR System.          |
| XMLSchema          | SchemaSupp  | XML Schema Supplement               | DocumentAbbreviation  |
| Supplement         |             |                                     | This document explains the XML Schema.  |
| SomelpExample      | SIPEX       | Somelp Example                      | DocumentAbbreviation  |
|                    |             |                                     | This document contains Somelp Examples.   |
| SPAL               | SPAL        | Standard Peripheral Abstraction     | DocumentAbbreviation  |
|                    |             | Layer                               | This document describes the Standard Peripheral Abstraction Layer.  |
| SafetyUseCase      | SUC         | Safety Use Case                     | DocumentAbbreviation  |
|                    |             |                                     | This document explains the Safety Use Cases.  |
| SWCModeling        | SWCM        | Software Component Modeling         | DocumentAbbreviation  |
|                    |             |                                     | This document describes the modeling of Software Components.  |
| SoftwareComponent  | SWCT        | Software Component Template         | DocumentAbbreviation  |
| Template           |             |                                     | This document specifies how to describe Software Components.  |
| SWCModelingGuide   | SWMG        | SW-C and System Modeling            | DocumentAbbreviation  |
|                    |             | Guide                               | This document gives guidelines and conventions on using the AUTOSAR model elements in order to build AUTOSAR systems. |





| shortName            | abbrName | longName                         | Classification, Description   |
|----------------------|----------|----------------------------------|---|
| SWCModeling          | SWNR     | Naming Rules in SW-C and         | DocumentAbbreviation  |
| Guide_NamingRules    |          | System Modeling Guide            | This document gives guidelines and conventions, in particular the naming rules on using the AUTOSAR model elements in order to build AUTOSAR systems. |
| Standardization      | STDT     | Standardization Template         | DocumentAbbreviation  |
| Template             |          |                                  | This specifies how AUTOSAR Standardization is represented as ARXML file.  |
| SystemTemplate       | SYST     | System Template                  | DocumentAbbreviation  |
|                      |          |                                  | This document specifies how to describe AUTOSAR Systems.  |
| TimingAnalysis       | TIMAY    | Specification of Timing Analysis | DocumentAbbreviation  |
|                      |          |                                  | This document explains the Timing Analysis.   |
| TimingExtensions     | TIMEX    | Specification of Timing          | DocumentAbbreviation  |
|                      |          | Extensions                       | This document specifies how to describe the timing of an AUTOSAR System.  |
| TTCAN                | TTCAN    | Requirements on TTCAN            | DocumentAbbreviation  |
|                      |          |                                  | This document specifies the additional TTCAN requirements for the CAN BSW stack.  |
| UtilizationOfCrypto  | UOC      | Utilization Of Crypto Services   | DocumentAbbreviation  |
| Services             |          |                                  | This document explains the Utilization of Crypto Services.  |
| VirtualFunctionalBus | VFB      | Virtual Functional Bus           | DocumentAbbreviation  |
|                      |          |                                  | This document describes the Virtual Functional Bus.   |
| XMLSchema            | XMLS     | XML Schema                       | DocumentAbbreviation  |
|                      |          |                                  | This document describes the XML Schema.   |
| XMLSchemaProduction  | XMLSPR   | XML Schema Production Rules      | DocumentAbbreviation  |
| Rules                |          |                                  | This document describes how a W3C XML schema specification compliant XML schema can be compiled out of the AUTOSAR meta-model.                        |

**Table 4.1: AUTOSAR Document Abbreviations for Trace Prefixes** 

## 5 [NamespaceAbbreviations] AUTOSAR Name Spaces

These keywords represent the name space abbreviations of AUTOSAR Adaptive Platform Functional Cluster.

**[TR\_PDN\_00004] Document Abbreviations for Name Spaces** [ This keyword set contains the name space definitions:

• NamespaceAbbreviation: The abbrName represents a valid name space abbreviation).



]()

| shortName     | abbrName      | longName                           | Classification, Description |
|---------------|---------------|------------------------------------|-----------------------------|
| com           | com           | Communication Management           | NamespaceAbbreviation       |
|               |               |                                    | To be filled.               |
| exec          | exec          | Execution Management               | NamespaceAbbreviation       |
|               |               |                                    | To be filled.               |
| not_available | not_available | Operating System                   | NamespaceAbbreviation       |
|               |               |                                    | To be filled.               |
| per           | per           | Persistency                        | NamespaceAbbreviation       |
|               |               |                                    | To be filled.               |
| diag          | diag          | Diagnostics                        | NamespaceAbbreviation       |
|               |               |                                    | To be filled.               |
| og            | log           | Log and Trace                      | NamespaceAbbreviation       |
|               |               |                                    | To be filled.               |
| time          | time          | Time Synchronisation               | NamespaceAbbreviation       |
|               |               |                                    | To be filled.               |
| rest          | rest          | REpresentational State Transfer    | NamespaceAbbreviation       |
|               |               |                                    | To be filled.               |
| ara           | ara           | Autosar API (in combination        | NamespaceAbbreviation       |
|               |               | with a cluster name ex: ara::rest) | To be filled.               |

Table 5.1: AUTOSAR Name Spaces



### **A Mentioned Class Tables**

For the sake of completeness, this chapter contains a set of class tables representing meta-classes mentioned in the context of this document but which are not contained directly in the scope of describing specific meta-model semantics.

|                | Identifiable (abstract)  |  |   |  |  |  |
|----------------|--|--|---|--|--|--|
| Package        | M2::AUTOSARTemplates:  | M2::AUTOSARTemplates::GenericStructure::GeneralTemplateClasses::Identifiable                 |   |  |  |  |
| Note           | Instances of this class can be referred to by their identifier (within the namespace borders). In addition to this, Identifiables are objects which contribute significantly to the overall structure of an AUTOSAR description. In particular, Identifiables might contain Identifiables.   |  |   |  |  |  |
| Base           | ARObject, MultilanguageF   | ARObject, MultilanguageReferrable, Referrable  |   |  |  |  |
| Subclasses     | ARPackage, AbstractEvent, AbstractImplementationDataTypeElement, AbstractServiceInstance, ApplicationEndpoint, ApplicationError, ApplicationPartitionToEcuPartitionMapping, AsynchronousServer CaliResultPoint, AtpBlueprint, AtpBlueprintable, AtpClassifier, AtpFeature, AutosarOperationArgument Instance, AutosarVariableInstance, BswInternalTriggeringPoint, BswModuleDependency, BuildAction Entity, BuildActionEnvironment, CanTpAddress, CanTpChannel, CanTpNode, Chapter, ClassContent Conditional, ClientIdDefinition, ClientServerOperation, Code, CollectableElement, ComManagement Mapping, CommConnectorPort, CommunicationConnector, CommunicationController, Compiler, ConsistencyNeeds, ConsumedEventGroup, CouplingPort, CouplingPortStructuralElement, Crypto ServiceMapping, DataPrototypeGroup, DataTransformation, DependencyOnArtifact, DiagPoent DebaunceAlgorithm, DiagnosticConnectedIndicator, DiagnosticDataElement, DiagnosticFunctionInhibit Source, DiagnosticMasterToSlaveEventMapping, DiagnosticRoutineSubfunction, DolpLogicAddress, EC UMapping, EOCExecutableEntityRefAbstract, EcuPartition, EcucContainerValue, EcucDefinition Element, EcucDestinationUriDef, EcucEnumerationLiteralDef, EcucQuery, EcucValidationCondition, End ToEndProtection, ExclusiveArea, ExecutableEntity, ExecutionTime, FMAttributeDef, FMFeatureMapAssertion, FMFeatureMapCondition, FMFeatureMapElement, FMFeatureRelation, FMFeatureRestriction, FMFeatureSelection, FlatInstanceDescriptor, FlexrayArTpNode, FlexrayTpConnectionControl, FlexrayTpNode, FlexrayTpPduPool, FrameTriggering, GeneralParameter, GlobalTimeGateway, GlobalTimeMaster, GlobalTimeSlave, HeapUsage, HwAttributeDef, HwAttributeLiteralDef, HwPin, HwPinGroup, IPv6Ext HeaderFilterList, ISignalTolPduMapping, ISignalTiggering, IdentCaption, InternalTriggeringPoint, J1939 SharedAddressCluster, J1939TpNode, Keyword, LifeCycleState, LinScheduleTable, LinTpNode, Linker, MacMulticastGroup, McDataInstance, MemorySection, ModeDeclaration, ModeDeclarationMapping, Outsider Node Reversion Prototype, RptComponent, Rpt |  |   |  |  |  |
|                | SecureCommunicationAut<br>ServiceNeeds, SocketAdd<br>Req, SwGenericAxisParar<br>Mapping, SwcToEcuMapp<br>Condition, TimingConstrai<br>CryptoCipherSuite, Topic1  | hentication<br>lress, Son<br>mType, Sv<br>ing, SwcT<br>int, Timing<br>, TpAddre              | onProps, S<br>neipTpCh<br>vServiceA<br>olmplMar<br>gDescripti<br>ess, Trace               | Point, RunnableEntityGroup, SdgAttribute, SdgClass, SecureCommunicationFreshnessProps, ServerCallPoint, annel, SpecElementReference, StackUsage, Structured arg, SwcServiceDependency, SwcToApplicationPartition oping, SystemMapping, TcpOptionFilterList, Timing on, TimingExtensionResource, TimingModeInstance, Tls ableText, TracedFailure, TransformationProps,  |  |  |
| Attribute      | SecureCommunicationAut<br>ServiceNeeds, SocketAdd<br>Req, SwGenericAxisParar<br>Mapping, SwcToEcuMapp<br>Condition, TimingConstrai<br>CryptoCipherSuite, Topic1<br>TransformationTechnology  | hentication<br>lress, Son<br>mType, Sv<br>ing, SwcT<br>int, Timing<br>, TpAddre              | onProps, S<br>neipTpCh<br>vServiceA<br>olmplMar<br>gDescripti<br>ess, Trace               | Point, RunnableEntityGroup, SdgAttribute, SdgClass, SecureCommunicationFreshnessProps, ServerCallPoint, annel, SpecElementReference, StackUsage, Structured arg, SwcServiceDependency, SwcToApplicationPartition oping, SystemMapping, TcpOptionFilterList, Timing from, TimingExtensionResource, TimingModeInstance, Tls ableText, TracedFailure, TransformationProps,  |  |  |
| Attribute desc | SecureCommunicationAut<br>ServiceNeeds, SocketAdd<br>Req, SwGenericAxisParar<br>Mapping, SwcToEcuMapp<br>Condition, TimingConstrai<br>CryptoCipherSuite, Topic1<br>TransformationTechnology<br>Point   | henticatio<br>lress, Son<br>nType, Sv<br>ing, SwcT<br>nt, Timing<br>, TpAddre<br>r, Trigger, | nProps, S<br>neipTpCh<br>vServiceA<br>oImplMap<br>gDescripti<br>ess, Trace<br>VariableA   | Point, RunnableEntityGroup, SdgAttribute, SdgClass, SecureCommunicationFreshnessProps, ServerCallPoint, annel, SpecElementReference, StackUsage, Structured arg, SwcServiceDependency, SwcToApplicationPartition oping, SystemMapping, TcpOptionFilterList, Timing on, TimingExtensionResource, TimingModeInstance, Tls ableText, TracedFailure, TransformationProps, access, VariationPointProxy, ViewMap, VlanConfig, Wait   |  |  |
|                | SecureCommunicationAut ServiceNeeds, SocketAdd Req, SwGenericAxisParar Mapping, SwcToEcuMapp Condition, TimingConstrai CryptoCipherSuite, Topic1 TransformationTechnology Point Type MultiLanguageOverview   | hentication ress, Son mType, Sving, SwcT nt, Timing, TpAddre, Trigger, Mul.                  | nnProps, S<br>neipTpCh<br>vServiceA<br>TolmplMap<br>gDescripti<br>ess, Trace<br>VariableA | Point, RunnableEntityGroup, SdgAttribute, SdgClass, SecureCommunicationFreshnessProps, ServerCallPoint, annel, SpecElementReference, StackUsage, Structured arg, SwcServiceDependency, SwcToApplicationPartition oping, SystemMapping, TcpOptionFilterList, Timing on, TimingExtensionResource, TimingModeInstance, Tls ableText, TracedFailure, TransformationProps, access, VariationPointProxy, ViewMap, VlanConfig, Wait  Note  This represents a general but brief (one paragraph) description what the object in question is about. It is only one paragraph! Desc is intended to be collected into overview tables. This property helps a human reader to |  |  |





| Class        | Identifiable (abstract) |    |      |  |
|--------------|-------------------------|----|------|--|
| category     | CategoryString          | 01 | attr | The category is a keyword that specializes the semantics of the Identifiable. It affects the expected existence of attributes and the applicability of constraints.  |
|              |                         |    |      | Tags: xml.sequenceOffset=-50   |
| adminData    | AdminData               | 01 | aggr | This represents the administrative data for the identifiable object.   |
|              |                         |    |      | Tags: xml.sequenceOffset=-40   |
| annotation   | Annotation              | *  | aggr | Possibility to provide additional notes while defining a model element (e.g. the ECU Configuration Parameter Values). These are not intended as documentation but are mere design notes.   |
|              |                         |    |      | Tags: xml.sequenceOffset=-25   |
| introduction | DocumentationBlock      | 01 | aggr | This represents more information about how the object in question is built or is used. Therefore it is a DocumentationBlock.   |
|              |                         |    |      | Tags: xml.sequenceOffset=-30   |
| uuid         | String                  | 01 | attr | The purpose of this attribute is to provide a globally unique identifier for an instance of a meta-class. The values of this attribute should be globally unique strings prefixed by the type of identifier. For example, to include a DCE UUID as defined by The Open Group, the UUID would be preceded by "DCE:". The values of this attribute may be used to support merging of different AUTOSAR models.  The form of the UUID (Universally Unique Identifier) is taken from a standard defined by the Open Group (was Open Software Foundation). This standard is widely used, including by Microsoft for COM (GUIDs) and by many companies for DCE, which is based on CORBA. The method for generating these 128-bit IDs is published in the standard and the effectiveness and uniqueness of the IDs is not in practice disputed.  If the id namespace is omitted, DCE is assumed. An example is "DCE:2fac1234-31f8-11b4-a222-08002b34c003". The unid attribute has no semantic meaning for an AUTOSAR model and there is no requirement for AUTOSAR tools to manage the timestamp.  Tags: xml.attribute=true |

**Table A.1: Identifiable** 

| Class     | Keyword   |   |      |      |  |
|-----------|---|---|------|------|--|
| Package   | M2::AUTOSARTemplates::                                      | M2::AUTOSARTemplates::StandardizationTemplate::Keyword  |      |      |  |
| Note      | construct names following  Note that such names is no       | This meta-class represents the ability to predefine keywords which may subsequently be used to construct names following a given naming convention, e.g. the AUTOSAR naming conventions.  Note that such names is not only shortName. It could be symbol, or even longName. Application of keywords is not limited to particular names. |      |      |  |
| Base      | ARObject, Identifiable, MultilanguageReferrable, Referrable |   |      |      |  |
| Attribute | Туре  | Mul.  | Kind | Note |  |





| Class          | Keyword   |   |      |  |
|----------------|-----------|---|------|--|
| abbrName       | NameToken | 1 | attr | This attribute specifies an abbreviated name of a keyword. This abbreviation may e.g. be used for constructing valid shortNames according to the AUTOSAR naming conventions. |
|                |           |   |      | Unlike shortName, it may contain any name token. E.g. it may consist of digits only.   |
| classification | NameToken | * | attr | This attribute allows to attach classification to the Keyword such as MEAN, ACTION, CONDITION, INDEX, PREPOSITION  |

Table A.2: Keyword

| Class      | MultilanguageReferrable (abstract)  |  |      |  |  |
|------------|---|--|------|--|--|
| Package    | M2::AUTOSARTemplates:   | M2::AUTOSARTemplates::GenericStructure::GeneralTemplateClasses::Identifiable                 |      |  |  |
| Note       | Instances of this class can be referred to by their identifier (while adhering to namespace borders). They also may have a longName. But they are not considered to contribute substantially to the overall structure of an AUTOSAR description. In particular it does not contain other Referrables. |  |      |  |  |
| Base       | ARObject, Referrable  | ARObject, Referrable   |      |  |  |
| Subclasses | Caption, DefItem, Docume  | Caption, Defltem, DocumentationContext, Identifiable, SdgCaption, TraceReferrable, Traceable |      |  |  |
| Attribute  | Type Mul. Kind Note   |  |      |  |  |
| longName   | MultilanguageLong<br>Name   | 01   | aggr | This specifies the long name of the object. Long name is targeted to human readers and acts like a headline. |  |

Table A.3: MultilanguageReferrable

| Class                 | Referrable (abstract)   |  |            |  |  |  |
|-----------------------|---|--|------------|--|--|--|
| Package               | M2::AUTOSARTemplates::GenericStructure::GeneralTemplateClasses::Identifiable    |  |            |  |  |  |
| Note                  | Instances of this class car   | be referr  | ed to by t | heir identifier (while adhering to namespace borders).   |  |  |
| Base                  | ARObject  |  |            |  |  |  |
| Subclasses            | VariableAccess, Coupling<br>EnvModeElement, Ethern<br>DescriptionEntity, Implem | AtpDefinition, BswDistinguishedPartition, BswModuleCallPoint, BswModuleClientServerEntry, Bsw VariableAccess, CouplingPortTrafficClassAssignment, DiagnosticDebounceAlgorithmProps, Diagnostic EnvModeElement, EthernetPriorityRegeneration, EventHandler, ExclusiveAreaNestingOrder, Hw DescriptionEntity, ImplementationProps, LinSlaveConfigIdent, ModeTransition, MultilanguageReferrable, PncMappingIdent, SingleLanguageReferrable, SocketConnectionBundle, TimeSyncServerConfiguration, TpConnectionIdent |            |  |  |  |
| Attribute             | Туре  | Mul.   | Kind       | Note   |  |  |
| shortName             | Identifier  | 1  | attr       | This specifies an identifying shortName for the object. It needs to be unique within its context and is intended for humans but even more for technical reference. |  |  |
|                       |   |  |            | Tags: xml.enforceMinMultiplicity=true xml.sequenceOffset=-100  |  |  |
| shortName<br>Fragment | ShortNameFragment   | · · · · · · · · · · · · · · · · · · ·  |            |  |  |  |
|                       |   |  |            | Tags: xml.sequenceOffset=-90   |  |  |

**Table A.4: Referrable**