Document Title	Predefined Names in AUTOSAR
Document Owner	AUTOSAR
Document Responsibility	AUTOSAR
Document Identification No	600

Document Status	published
Part of AUTOSAR Standard	Foundation
Part of Standard Release	R24-11

Document Change History			
Date	**Release**	**Changed by**	**Description**
2024-11-27	R24-11	AUTOSAR Release Management	• Added list of available Imposition Times (Chapter 2) • Removed obsolete information categories (Table 1.2)
2023-11-23	R23-11	AUTOSAR Release Management	• No content changes
2022-11-24	R22-11	AUTOSAR Release Management	• Editorial and minor changes
2021-11-25	R21-11	AUTOSAR Release Management	• Added abbreviations for AIDSM • Removed ARTI definitions
2020-11-30	R20-11	AUTOSAR Release Management	• Added abbreviations for DEXT, SECXT, ATS and ATR • Modified abbreviations for MetaModel and XmlSchema
2019-11-28	R19-11	AUTOSAR Release Management	• Included abbreviations for ARTI • Removed references to TR_InteroperabilityOfAutosarTools • Changed Document Status from Final to published
2018-10-31	4.4.0	AUTOSAR Release Management	• Removed reference to TR_SafetyConceptStatusReport

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2017-12-08	4.3.1	AUTOSAR Release Management	• Include abbreviations for Name Spaces • Include Mentioned Class Tables
2016-11-30	4.3.0	AUTOSAR Release Management	• Include abbreviations for PDEP
2015-07-31	4.2.2	AUTOSAR Release Management	• Include abbreviations for Acceptance Tests
2014-10-31	4.2.1	AUTOSAR Release Management	• Complete list of Module Abbreviation for each AUTOSAR document • Include additional keywords
2014-03-31	4.1.3	AUTOSAR Release Management	• editorial changes
2013-10-31	4.1.2	AUTOSAR Release Management	• harmonization of keywords with List of Basic Software Modules
2013-03-15	4.1.1	AUTOSAR Administration	• editorial changes • harmonization of keywords with other documents
2011-12-22	4.0.3	AUTOSAR Administration	• Initial release

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Contents

References

[1] General Specification of Basic Software Modules
AUTOSAR_CP_SWS_BSWGeneral

[2] XML Specification of Application Interfaces
AUTOSAR_CP_MOD_AISpecification

[3] Specification of ECU Configuration Parameters (XML)
AUTOSAR_CP_MOD_ECUConfigurationParameters

[4] Standardization Template
AUTOSAR_FO_TPS_StandardizationTemplate

[5] Generic Structure Template
AUTOSAR_FO_TPS_GenericStructureTemplate

[6] Standardized M1 Models used for the Definition of AUTOSAR
AUTOSAR_FO_MOD_GeneralDefinitions

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] General Specification of Basic Software Modules

- [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 `Keyword`s 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 `classification`s as referenced e.g. by [TPS_STDT_00042] respectively [TPS_GST_00017]. In addition to this, `desc` of the keyword is shown as well in order to understand the purpose of the reserved name.

1.1 [VirtualModules] Virtual Modules

[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.

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shortName	abbrName	longName	Classification, Description
AISpecification	AISpecification	XML Specification of Application Interfaces	AUTOSAR-Document, Module 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 1.1: Virtual Modules

1.2 [InformationCategories] AUTOSAR Information Categories

[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.

⌋

shortName	abbrName	longName	Classification, Description
ASWS	ASWS	Abstract SWS Software Specification	DocumentCategory, TraceCategory General Specification of AUTOSAR Basic Software Modules
EXP	EXP	Explanation	DocumentCategory, TraceCategory Explanatory material discussing contents already shown in other documents
MMOD	MetaModel	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)
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
SRC	SRC	Source	DocumentCategory, TraceCategory Source code artifacts
SWS	SWS	Software Specification	DocumentCategory, TraceCategory Specification of AUTOSAR Software
TPS	TPS	Template Specification	DocumentCategory, TraceCategory Specification of AUTOSAR Templates, containing Meta model information, constraints etc.

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shortName	abbrName	longName	Classification, Description
TR	TR	Technical Report	DocumentCategory, TraceCategory A general technical report describing arbitrary AUTOSAR related topics

Table 1.2: AUTOSAR Information Categories

1.3 [DocumentAbbreviations] AUTOSAR Document Abbreviations for Trace Prefixes

[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	longName	Classification, Description
ARTI	ARTI	AUTOSAR Run-Time Interface	DocumentAbbreviation This document explains Interfaces for the "AUTOSAR Run-Time Interface"
AIBodyAndComfort	AIBC	Application Interfaces "Body and Comfort"	DocumentAbbreviation This document explains Application Interfaces for "Body and Comfort".
AIChassis	AICS	Application Interfaces "Chassis"	DocumentAbbreviation This document explains Application Interfaces for "Chassis".
AIDesignPattern Catalogue	AIDPC	Application Interface Design Pattern Catalogue	DocumentAbbreviation This document contains Application Interface Design Pattern Catalogue.
IntrusionDetection SystemManager	AIDSM	Intrusion Detection System Manager	DocumentAbbreviation This document explains the Intrusion Detection System Manager for Adaptive platform
AIHMIMultimediaAnd Telematics	AIHMI	Application Interfaces "HMI Multimedia and Telematics"	DocumentAbbreviation This document explains Application Interfaces for "HMI Multimedia And Telematics".
AIOccupantAnd PedestrianSafety	AIOPS	Application Interfaces "Occupant and pedestrian Safety"	DocumentAbbreviation This document explains Application Interfaces for "Application Interface Occupant and pedestrian Safety".
AIPowertrain	AIPT	Application Interfaces "Powertrain"	DocumentAbbreviation This document document explains Application Interfaces for "Powertrain".
AISpecification Examples	AISE	XML Examples of Application Interfaces	DocumentAbbreviation This represents XML Examples of Appplication Interfaces.
AIUserGuide	AIUG	Application Interfaces User Guide	DocumentAbbreviation This document aims at explaining all relevant details about the AI Table.

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shortName	abbrName	longName	Classification, Description
APMC	APMC	Adaptive Platform Machine Configuration	DocumentAbbreviation This document specifies the technical details of the APMC configuration.
ApplicationLevelError Handling	ALEH	Application Level Error Handling	DocumentAbbreviation This document explains the Application Level Error Handling.
AdaptiveNetwork Management	ANM	Adaptive Network Management	DocumentAbbreviation Adaptive Platform - to be filled correclty
AdaptivePlatform Demonstrator	APD	Adaptive Platform Demonstrator	DocumentAbbreviation This specifies the Adaptive Platform Demonstrator
AdaptivePlatform DemonstratorTestdata	APDT	Adaptive Platform Demonstrator Testdata	DocumentAbbreviation This specifies the Adaptive Platform Demonstrator Testdata
AutosarModel Constraints	ArModC	Autosar Model Constraints	DocumentAbbreviation This document explains Autosar Model Constraints.
ARXMLSerialization Rules	ASR	ARXML Serialization Rules	DocumentAbbreviation This document explains how to serialize AUTOSAR models into ARXML files and vice versa.
ATBM	ATBM	Interaction with Behavioral Models	DocumentAbbreviation This document describes interaction with behavioral models.
BSWAndRTEFeatures	BRF	AUTOSAR BSW and RTE Features	DocumentAbbreviation 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 Template	BSWMDT	Basic Software Module Description Template	DocumentAbbreviation This document specifies how to describe a Basic Software
BSWUMLModel ModelingGuide	BSWUMG	BSW UML Model Modeling Guide	DocumentAbbreviation 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 IntegrationGuideline	CDDG	CDD Design And Integration Guideline	DocumentAbbreviation This guideline describes the Design and the Integration of CDD.

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shortName	abbrName	longName	Classification, Description
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.
Communication Management	COMMGMT	Communication Management	DocumentAbbreviation Relevant for communication management.
CommunicationViaBus	COMVB	Communication via a bus	DocumentAbbreviation Relevant for communication via a bus.
DiagnosticExtract Template	DEXT	Diagnostic Extract Template	DocumentAbbreviation This document specifies diagnostic exchange data.
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 correclty
ECUConfiguration	ECUC	Specification of ECU Configuration	DocumentAbbreviation This document specifies the technical details of the ECU configuration
ECUConfiguration Parameters	ECUCP	ECU Configuration Parameters	DocumentAbbreviation This document describes ECU Configuration Parameters.
EcuModeManagement	ECUMGMT	ECU Mode Management	DocumentAbbreviation Relevant for ECU mode management.
ECUResourceTemplate	ECUR	Specification of ECU Resource Template	DocumentAbbreviation This specifies how to describe 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 correclty
ErrataSheet	ERSH	Errata Sheet	DocumentAbbreviation This document explains the Errata Sheet.
FrancaIntegration	FCAINT	Franca Integration	DocumentAbbreviation This document describes the Franca Integration.

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shortName	abbrName	longName	Classification, Description
Features	Feature	Feature Specification Acceptance Tests	DocumentAbbreviation Feature Specification of the acceptance tests.
FeatureModelExchange Format	FMDT	Specification of Feature Model Exchange Format	DocumentAbbreviation This specifies how to describe the Feature Model Exchange Format.
FreeRunningTimer	FRT	Free Running Timer	DocumentAbbreviation This document describes the Free Running Timer.
Glossary	GLOS	Glossary	DocumentAbbreviation This document lists all Glossary items.
GenericStructure Template	GST	Generic Structure Template	DocumentAbbreviation This specifies common aspects applicable to all templates.
Gateway	GTW	Gateway	DocumentAbbreviation This document explains the Gateway.
HealthManagement	HM	Health Management	DocumentAbbreviation Adaptive Platform - to be filled correclty
InteroperabilityOf AutosarTools	IOAT	Interoperability of AUTOSAR Tools	DocumentAbbreviation This document describes various aspects of interoperability of AUTOSAR tools.
InteroperabilityOf AutosarTools Supplement	IOATS	Interoperability of AUTOSAR Tools Supplement	DocumentAbbreviation 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 Explanation	IRH	Interrupt Handling Explanation	DocumentAbbreviation 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 correclty
LayeredSoftware Architecture	LSA	Layered Software Architecture	DocumentAbbreviation This document describes the Layered Software Architecture.
MainRequirements	Main	AUTOSAR Main Requirements	DocumentAbbreviation This document specifies the AUTOSAR main requirements.
AIMeasurement CalibrationDiagnostics	MCAI	Unique Names for Documentation, Measurement and Calibration: Modeling and Naming Aspects including Automatic Generation	DocumentAbbreviation This document discusses how to automatically generate display names for measurement, calibration and diagnostic tools (MCD).

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shortName	abbrName	longName	Classification, Description
AIMeasurement CalibrationDiagnostics_ Assumptions	MCA	Assumptions in Unique Names for Documentation, Measurement and Calibration: Modeling and Naming Aspects including Automatic Generation	DocumentAbbreviation 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
AIMeasurement CalibrationDiagnostics_ GenerationRules	MCG	Generation Rules in Unique Names for Documentation, Measurement and Calibration: Modeling and Naming Aspects including Automatic Generation	DocumentAbbreviation 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.
AIMeasurement CalibrationDiagnostics_ ModelingRules	MCM	Modeling Rules in Unique Names for Documentation, Measurement and Calibration: Modeling and Naming Aspects including Automatic Generation	DocumentAbbreviation 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.
AIMeasurement CalibrationDiagnostics_ Requirements	MCR	Requirements in Unique Names for Documentation, Measurement and Calibration: Modeling and Naming Aspects including Automatic Generation	DocumentAbbreviation 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 Services	DocumentAbbreviation This document specifies requirements on Basic Software Modules of the memory services.
Methodology	METH	AUTOSAR Methodology	DocumentAbbreviation This describes the AUTOSAR Methodolgy.
MethodologyModel Rules	MethModR	Methodology Model Rules	DocumentAbbreviation 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 Layer	MMHWABLY	Memory Hardware Abstraction Layer	DocumentAbbreviation This document describes the Memory Hardware Abstraction Layer.
ModeManagement Guide	MMG	Mode Management Guide	DocumentAbbreviation This guideline describes the Mode Management.
ModeMgm	ModeMgm	Mode Management	DocumentAbbreviation This document specifies Mode Management in AUTOSAR.

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shortName	abbrName	longName	Classification, Description
MultiCoreGuide	MTCG	Multi Core Guide	DocumentAbbreviation This guideline describes Multi Core.
MethodologyAnd TemplatesGeneral	MTG	General Requirements on Methodology and Templates	DocumentAbbreviation This document has the purpose to collect requirements on Methodology and Templates which are relevant for more than one document.
OperatingSystem Interface	OSI	Operating System Interface	DocumentAbbreviation Adaptive Platform - to be filled correclty
Pesistency	PER	Persistency	DocumentAbbreviation Adaptive Platform - to be filled correclty
PredefinedNames	PDN	AUTOSAR PredefinedNames	DocumentAbbreviation This document describes various predefined names used in AUTOSAR.
ProjectObjectives	PO	AUTOSAR Project Objectives	DocumentAbbreviation This document specifies the AUTOSAR Project Objectives.
ReferenceBase	RefBase	Reference Base	DocumentAbbreviation This document contains Reference Base items.
Requirements	Requirement	Requirements Acceptance Tests	DocumentAbbreviation Requirements for the acceptance tests.
ReleaseOverviewAnd RevHistory	RORH	Release Overview And Rev History	DocumentAbbreviation 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 Engineers	DocumentAbbreviation This document describes the network standard developed by the Society of Automotive Engineers.
SafetyExtensions	SAFEX	Specifcation of Safety Extensions	DocumentAbbreviation This document specifes how to describe the safety relevant properties and requirements of an AUTOSAR System.
XMLSchema Supplement	SchemaSupp	XML Schema Supplement	DocumentAbbreviation This document explains the XML Schema.
SecurityExtract Template	SECXT	Security Extract Template	DocumentAbbreviation This document specifies security exchange data.
SomeIpExample	SIPEX	SomeIp Example	DocumentAbbreviation This document contains SomeIp Examples.
SPAL	SPAL	Standard Peripheral Abstraction Layer	DocumentAbbreviation This document describes the Standard Peripheral Abstraction Layer.

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shortName	abbrName	longName	Classification, Description
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 Template	SWCT	Software Component Template	DocumentAbbreviation This document specifies how to describe Software Components.
SWCModelingGuide	SWMG	SW-C and System Modeling Guide	DocumentAbbreviation This document gives guidelines and conventions on using the AUTOSAR model elements in order to build AUTOSAR systems.
SWCModelingGuide_ NamingRules	SWNR	Naming Rules in SW-C and System Modeling Guide	DocumentAbbreviation This document gives guidelines and conventions, in particular the naming rules on using the AUTOSAR model elements in order to build AUTOSAR systems.
Standardization Template	STDT	Standardization Template	DocumentAbbreviation 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 Extensions	DocumentAbbreviation 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 Services	UOC	Utilization Of Crypto Services	DocumentAbbreviation This document explains the Utilization of Crypto Services.
VirtualFunctionalBus	VFB	Virtual Functional Bus	DocumentAbbreviation This document describes the Virtual Functional Bus.
XMLSchema	XMLSchema	XML Schema	DocumentAbbreviation This document describes the XML Schema.
XMLSchemaProduction Rules	XMLSPR	XML Schema Production Rules	DocumentAbbreviation This document describes how a W3C XML schema specification compliant XML schema can be compiled out of the AUTOSAR meta-model.

Table 1.3: AUTOSAR Document Abbreviations for Trace Prefixes

2 [ImpositionTimes] Imposition Times

[TR_PDN_00005] ImpositionTimes used in AUTOSAR ⌈The shortNames of the ImpositionTimes used in AUTOSAR including their abbreviations and descriptions are defined in [6].⌋

Note: The identifiable part of the ImpositionTime is the content of the column "Imposition Time" in following table.

Imposition Time	Description	Motivation
IT_RteGen	RTE is generated	This imposition time denotes the step in the workflow where the model is considered complete such that the generation of the RTE can be executed. *At the time when the RTE is generated*, all constraints that need to be imposed *at the time when the contract phase generation is executed* **and** those that are imposed *at any time in the workflow* also need to be observed. In other words, a constraint that is imposed *at the time when the contract phase generation is executed* shall also be imposed *at the time when the RTE is generated*.
IT_CpgExe	Contract Phase generation is executed	This imposition time is aimed at the time when a software-component is ready for generating the contract phase header files such that the implementation of the software-component can be started.
IT_CompSwcT	Creation of the CompositionSw ComponentType is finished	This imposition time applies to the creation of compositions of software-components. This imposition time is considered optional. In other words, there may be use cases to deliver CompositionSwComponentTypes that violate constraints with this imposition time to another party. But it may also make sense in some cases to make sure, that a CompositionSwComponentType that is going to be delivered to another party fulfills the constraints associated with this binding time.
IT_Dext	Creation of the Diagnostic Extract is finished	This imposition time is applicable to both the AUTOSAR adaptive platform and the AUTOSAR classic platform the at the time when the DEXT is complete.
IT_Apsd	Creation of the Abstract Platform System Description is finished	This imposition time indicates when the Abstract Platform System Description is complete.
IT_SysDesc	SYSTEM_DESCRIPTION is completed	This imposition time is aimed at the time when a system description (e.g. SYSTEM_DESCRIPTION or SYSTEM_ EXTRACT or ECU_SYSTEM_DESCRIPTION) is complete for exchange between parties and is ready as input for Ecu Extract and Com Stack generators.
IT_SwCluSysDesc	SW_CLUSTER_SYSTEM_ DESCRIPTION is completed	This imposition time denotes the step in the workflow where the SW_CLUSTER_SYSTEM_DESCRIPTION model is considered complete such that the development and integration of the Software Cluster can start.
IT_EcuExt	ECU_EXTRACT is completed	This imposition time denotes the step in the workflow where the ECU_EXTRACT model is considered complete such that it can be used as input for the generation of the RTE.
IT_ResPool	Definition of the resource pool is finished	This imposition time denotes the step in the workflow where the pool of resources which can be provided or required by Software Clusters is considered complete such that such that the development and integration of the Software Cluster can start.
IT_VfbTd	VFB Timing Description is completed	This imposition time is aimed at the time when a VFB Timing is complete.

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Imposition Time	Description	Motivation
IT_SwcTd	Swc Timing Description is completed	This imposition time is aimed at the time when a Swc Timing is complete.
IT_SysTd	System Timing Description is completed	This imposition time is aimed at the time when a System Timing is complete.
IT_BswTd	Bsw Timing Description is completed	This imposition time is aimed at the time when a Bsw Timing is complete. This applies for both the Bsw Module Timing and the Bsw Composition Timing.
IT_EcuTd	Ecu Timing Description is completed	This imposition time is aimed at the time when a Ecu-wide Timing is complete.
IT_SubClasTdEvAss	Imposition time associated with the concrete subclass of Timing DescriptionEvent is applied.	This means that the imposition time of the constraint cannot be unambiguously defined on the level of the abstract meta-class `TimingDescriptionEvent`. Sub-classes of `TimingDescriptionEvent` have imposition times associated with them (by means of constraints that refer to the subclasses) and the constraints that apply in the context of the definition of `TimingDescriptionEvent` shall therefore not contain a concrete imposition time but take over the imposition time from the applicable subclass. Example: subclass `TDEventVfb` is associated with the imposition time at the time when the VFB Timing Description is complete.
IT_SubClasTeAss	Imposition time associated with the concrete subclass of Timing Extension.	This means that the imposition time is relative to the concrete subclass of TimingExtension (Timing View) in use, namely: - at the time when the VFB Timing Description is complete, - at the time when the Swc Timing Description is complete, - at the time when the System Timing Description is complete, - at the time when the Bsw Timing Description is complete, - at the time when the Ecu Timing Description is complete
IT_SubClasTdEv	Imposition time associated with the concrete subclass of Timing DescriptionEvent by condition.	The imposition time is associated with the concrete subclass of `TimingDescriptionEvent` if the constraint is applied to a `TimingDescriptionEvent` or at the imposition time associated with the concrete subclass of TimingExtension if the constraint is applied to a `TimingDescriptionEventChain`.
IT_BefAraApiGen	Before the generation of the ara API starts	This imposition time is aimed at the time when a software-component is ready for generating the header files such that the implementation of the software-component can be started.
IT_DesExe	Design of the Executable is completed	This imposition time is aimed at the time when an `Executable` is finished, i.e. it shall be used in constraints that target the consistency of the modeling of `Executable`.
IT_ProDes	ProcessDesign is completed	This imposition time is aimed at the time when a `ProcessDesign` is finished, i.e. it shall be used in constraints that target the consistency of the modeling of `ProcessDesign`.
IT_GraDes	GrantDesign is completed	This imposition time is aimed at the time when a `GrantDesign` is finished, i.e. it shall be used in constraints that target the consistency of the modeling of `GrantDesign`.
IT_SysDes	System design is completed	This imposition time denotes the step in the workflow, where the system design is about to be finished.
IT_SubSysDes	Sub-system design is completed	This imposition time denotes the step in the workflow, where the sub-system design is about to be finished.
IT_DiagDes	Diagnostic design is completed	This imposition time denotes the step in the workflow, where the diagnostic design is about to be finished.
IT_MachDes	Machine design is completed	This imposition time denotes the step in the workflow, where the machine design is about to be finished.
IT_Mani	Creation of the manifest is finished	This imposition time denotes the step in the workflow, where the manifest is considered complete such that the installation on a target platform can be started.

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Imposition Time	Description	Motivation
IT_FeatMod	Feature Model is completed	This imposition time denotes the step in the workflow, where the feature model is about to be finished.
IT_LogTrace	Log and Trace Extract is complete	This imposition time denotes the step in the workflow, where the Log and Trace Extract is about to be finished.
IT_ValSpec	ValueSpecification is applied	This imposition time is aimed at the point in time where a `ValueSpecification` is applied to data object and consistency requirements between the `ValueSpecification` and the data object can be checked.
IT_BinObjMetaData	The definition of binary object meta-data is finished	This imposition time denotes the step in the workflow where the description of `CpSoftwareClusterBinaryManifestDescriptor` is considered complete so that that the Software Cluster Binary Manifest can be defined during the integration.
IT_BswMD	Configuration of the BSW module is finished	This imposition time is applicable at the time when the BSW module description is complete.
IT_CfgFc	Configuration of Functional Cluster is finished	This imposition time denotes the step in the workflow, where the configuration of a functional cluster is considered complete such that the installation on a target platform can be started.

Table 2.1: Overview Imposition Times

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.

Class	*Identifiable* (abstract)			
Package	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*, *MultilanguageReferrable*, *Referrable*			
Subclasses	ARPackage, *AbstractDoIpLogicAddressProps*, *AbstractEvent*, *AbstractImplementationDataTypeElement*, *AbstractSecurityEventFilter*, *AbstractSecurityIdsmInstanceFilter*, *AbstractServiceInstance*, Application Endpoint, ApplicationError, AppliedStandard, ArtifactChecksum, *AtpBlueprint*, *AtpBlueprintable*, *Atp Classifier*, *AtpFeature*, AutosarOperationArgumentInstance, AutosarVariableInstance, BlockState, *Build ActionEntity*, BuildActionEnvironment, Chapter, ClassContentConditional, ClientIdDefinition, ClientServer Operation, Code, *CollectableElement*, ComManagementMapping, *CommConnectorPort*, *Communication Connector*, *CommunicationController*, Compiler, ConsistencyNeeds, ConsumedEventGroup, Coupling Port, *CouplingPortAbstractShaper*, *CouplingPortStructuralElement*, CryptoKeySlot, *CryptoService Mapping*, DataPrototypeGroup, DataPrototypeTransformationPropsIdent, DataTransformation, DdsCp Domain, DdsCpPartition, DdsCpQosProfile, DdsCpTopic, DependencyOnArtifact, *DiagEventDebounce Algorithm*, DiagnosticAuthTransmitCertificateEvaluation, DiagnosticConnectedIndicator, DiagnosticData Element, DiagnosticDebounceAlgorithmProps, DiagnosticFunctionInhibitSource, DiagnosticParameter Element, *DiagnosticRoutineSubfunction*, DltApplication, DltArgument, DltMessage, DoIpInterface, DoIp LogicAddress, DoIpRoutingActivation, EndToEndProtection, EthernetWakeupSleepOnDatalineConfig, EventHandler, ExclusiveArea, *ExecutableEntity*, *ExecutionTime*, FMAttributeDef, FMFeatureMap Assertion, FMFeatureMapCondition, FMFeatureMapElement, FMFeatureRelation, FMFeatureRestriction, FMFeatureSelection, FlexrayArTpNode, FlexrayTpPduPool, *FrameTriggering*, GeneralParameter, Global TimeGateway, *GlobalTimeMaster*, *GlobalTimeSlave*, *HeapUsage*, HwAttributeDef, HwAttributeLiteral Def, HwPin, HwPinGroup, *IEEE1722TpAcfBus*, *IEEE1722TpAcfBusPart*, IPSecRule, IPv6ExtHeader FilterList, ISignalToIPduMapping, ISignalTriggering, *IdentCaption*, ImpositionTime, InternalTriggering Point, Keyword, LifeCycleState, Linker, MacAddressVlanMembership, MacMulticastGroup, MacSecKay Participant, McDataInstance, MemorySection, ModeDeclaration, ModeDeclarationMapping, ModeSwitch Point, NetworkEndpoint, *NmCluster*, *NmNode*, *PackageableElement*, ParameterAccess, PduActivation RoutingGroup, PduToFrameMapping, PduTriggering, PerInstanceMemory, *PhysicalChannel*, PortGroup, *PortInterfaceMapping*, ResourceConsumption, RootSwCompositionPrototype, RptComponent, Rpt Container, RptExecutableEntity, RptExecutableEntityEvent, RptExecutionContext, RptProfile, RptService Point, RunnableEntityGroup, *SdgAttribute*, SdgClass, SecOcJobRequirement, SecureCommunication AuthenticationProps, SecureCommunicationFreshnessProps, SecurityEventContextDataElement, SecurityEventContextProps, *ServiceNeeds*, SignalServiceTranslationEventProps, SignalService TranslationProps, SocketAddress, SomeipTpChannel, *SpecElementReference*, *StackUsage*, Static SocketConnection, StructuredReq, SwGenericAxisParamType, SwServiceArg, SwcServiceDependency, SwitchAsynchronousTrafficShaperGroupEntry, SystemMapping, *TimeBaseResource*, *TimingClock*, TimingClockSyncAccuracy, TimingCondition, *TimingConstraint*, *TimingDescription*, TimingExtension Resource, TimingModeInstance, Topic1, TpAddress, TraceableTable, TraceableText, *TracedFailure*, TransformationISignalPropsIdent, *TransformationProps*, TransformationTechnology, Trigger, Variable Access, VariationPointProxy, ViewMap, VlanConfig, WaitPoint			
Attribute	**Type**	**Mult.**	**Kind**	**Note**
adminData	AdminData	0..1	aggr	This represents the administrative data for the identifiable object. **Stereotypes:** atpSplitable **Tags:** atp.Splitkey=adminData xml.sequenceOffset=-40

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Class	Identifiable (abstract)			
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
category	CategoryString	0..1	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
desc	MultiLanguageOverview Paragraph	0..1	aggr	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 identify the object in question. More elaborate documentation, (in particular how the object is built or used) should go to "introduction". **Tags:** xml.sequenceOffset=-60
introduction	DocumentationBlock	0..1	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	0..1	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 uuid 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	ImpositionTime			
Package	M2::AUTOSARTemplates::GenericStructure::ImpositionTimes			
Note	This meta class represents one particular imposition time.			
Base	*ARObject*, *AtpBlueprint*, *AtpBlueprintable*, *Identifiable*, *MultilanguageReferrable*, *Referrable*			
Aggregated by	ImpositionTimeDefinitionGroup.impositionTime			
Attribute	**Type**	**Mult.**	**Kind**	**Note**
–	–	–	–	–

Table A.2: ImpositionTime

Class	Keyword			
Package	M2::AUTOSARTemplates::CommonStructure::StandardizationTemplate::Keyword			
Note	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*			
Aggregated by	KeywordSet.keyword			
Attribute	**Type**	**Mult.**	**Kind**	**Note**
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.3: Keyword

Class	*MultilanguageReferrable* (abstract)			
Package	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*			
Subclasses	Caption, DefItem, DocumentationContext, *Identifiable*, SdgCaption, *TraceReferrable*, *Traceable*			
Attribute	**Type**	**Mult.**	**Kind**	**Note**
longName	MultilanguageLong Name	0..1	aggr	This specifies the long name of the object. Long name is targeted to human readers and acts like a headline.

Table A.4: MultilanguageReferrable

Class	*Referrable* (abstract)			
Package	M2::AUTOSARTemplates::GenericStructure::GeneralTemplateClasses::Identifiable			
Note	Instances of this class can be referred to by their identifier (while adhering to namespace borders).			
Base	*ARObject*			
Subclasses	*AtpDefinition*, BswDistinguishedPartition, *BswModuleCallPoint*, BswModuleClientServerEntry, Bsw VariableAccess, CouplingPortTrafficClassAssignment, *DiagnosticEnvModeElement*, EthernetPriority Regeneration, ExclusiveAreaNestingOrder, *HwDescriptionEntity*, *ImplementationProps*, ModeTransition, *MultilanguageReferrable*, PncMappingIdent, *SingleLanguageReferrable*, SoConIPduIdentifier, Socket ConnectionBundle, TimeSyncServerConfiguration, TpConnectionIdent			
Attribute	**Type**	**Mult.**	**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. **Stereotypes:** atpIdentityContributor **Tags:** xml.enforceMinMultiplicity=true xml.sequenceOffset=-100

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Class	Referrable (abstract)			
shortName Fragment	ShortNameFragment	*	aggr	This specifies how the Referrable.shortName is composed of several shortNameFragments. **Tags:** xml.sequenceOffset=-90

Table A.5: Referrable

B   Change history of AUTOSAR traceable items

B.1   Change History of this document according to AUTOSAR Release R23-11

B.1.1   Added Specification Items in R23-11

B.1.2   Changed Specification Items in R23-11

B.1.3   Deleted Specification Items in R23-11

B.2   Change History of this document according to AUTOSAR Release R24-11

B.2.1   Added Specification Items in R24-11

Number	Heading
[TR_PDN_00005]	ImpositionTimes used in AUTOSAR

Table B.1: Added Specification Items in R24-11

B.2.2   Changed Specification Items in R24-11

B.2.3   Deleted Specification Items in R24-11