Document Title	Foundation Release Overview
Document Category	Technical report (TR)
Document UID	781
Document Status	published
Part of AUTOSAR Standard	Foundation
Part of Standard Release	R26-11

Document Change History			
Date	**Release**	**Changed by**	**Description**
2026-11-26	R26-11	AUTOSAR Release Management	• Release Life Cycle Status: R26-11 is in Evolution, R26-11 supersedes R25-11

Disclaimer

This work (specification and/or software implementation) and the material contained in it, as released by AUTOSAR, is for the purpose of information only. AUTOSAR and the companies that have contributed to it shall not be liable for any use of the work.

The material contained in this work is protected by copyright and other types of intellectual property rights. The commercial exploitation of the material contained in this work requires a license to such intellectual property rights.

This work may be utilized or reproduced without any modification, in any form or by any means, for informational purposes only. For any other purpose, no part of the work may be utilized or reproduced, in any form or by any means, without permission in writing from the publisher.

The work has been developed for automotive applications only. It has neither been developed, nor tested for non-automotive applications.

The word AUTOSAR and the AUTOSAR logo are registered trademarks.

Table of Contents

1 Introduction 6
1.1 Scope of This Document . . . 6
1.2 Terminology and Licenses . . . 6
1.2.1 Disclaimer Regarding Language in This Release . . . 6
1.2.2 Usage of W3C XML Schema . . . 6
1.3 AUTOSAR Standards . . . 7
1.3.1 Introduction . . . 7
1.3.2 Definition . . . 8
1.3.3 Overview of AUTOSAR's Standards . . . 8
1.3.3.1 Adaptive Platform . . . 8
1.3.3.2 Classic Platform . . . 8
1.3.3.3 Foundation . . . 9
1.3.4 Dependencies Between Standards . . . 9
1.3.5 Precedence of Standards . . . 9
1.4 Release Numbering and Life Cycle . . . 10
1.4.1 Platform Release Number . . . 10
1.4.2 Internal Release Number . . . 10
1.4.3 AUTOSAR Schema Versions . . . 10
1.4.4 Release Life Cycle of a Major Release . . . 11
1.4.5 Life Cycle States of Specification Items and Requirements . . . 12
1.5 Content of Chapters . . . 12
2 Summary of Changes in Release R26-11 14
2.1 Concepts . . . 14
2.1.1 Introduced Concepts . . . 14
2.1.1.1 CANsec . . . 14
2.1.1.2 DMA Driver . . . 14
2.1.1.3 PostBuild ConfigClass simplification . . . 15
2.1.1.4 Encryption Support in SecOC . . . 15
2.1.2 Impact of Concepts . . . 15
2.1.3 Validated Concepts . . . 16
2.2 Specifications . . . 17
2.2.1 New Specifications . . . 17
2.2.2 Migrated Specifications . . . 17
2.2.3 Obsolete Specifications . . . 17
2.2.4 Removed Specifications . . . 17
2.2.5 Reworked Specifications . . . 18
2.2.6 Moved Specification Parts . . . 18
2.2.7 Renamed Specifications . . . 18
2.3 Release Documentation . . . 18
3 Specification Overview 19

4 Remarks to Known Technical Deficiencies 22

5 Release History 23

5.1 Release R26-11 23

References

[1] ISO/IEC Directives, Part 2, Principles and rules for the structure and drafting of ISO and IEC documents
https://www.iso.org/sites/directives/current/part2/index.xhtml

[2] CiA 613-2 version 1.0.0 (DSP) - CAN XL add-on services - Part 2: Security
http://www.can-cia.org

1 Introduction

1.1 Scope of This Document

This document provides an overview of the AUTOSAR standard Foundation Release R26-11.

1.2 Terminology and Licenses

1.2.1 Disclaimer Regarding Language in This Release

This release may contain terminology or phrasing that, while historically or technically conventional, could be perceived as outdated, insensitive, or discriminatory in modern contexts. AUTOSAR wishes to explicitly state that any such language is unintentional and is not meant to offend, exclude, or imply prejudice against any individual or group.

Such instances typically arise from:

Historical Usage Terms that were once common in technical or industry parlance.

Legacy Systems Descriptions inherited from older systems or standards that predate current inclusive language guidelines.

Technical Specificity Language chosen for precise technical meaning, which may inadvertently carry unintended connotations.

Backward Compatibility and External References In some cases, specific terminologies cannot be altered without breaking backward compatibility with existing systems, codebases, or processes. Additionally, certain terms may be retained to align with established industry standards, external specifications, or third-party documentation, where consistency is critical for interoperability and clear communication across different platforms and organizations.

AUTOSAR is committed to fostering an inclusive environment and regularly reviews our documentation to identify and update language that does not align with our values. Among other guidelines, AUTOSAR is referring to the relevant ISO standard ISO/IEC Directives, Part 2 [1].

If you encounter any language within this document that you find concerning, AUTOSAR encourages you to provide feedback so AUTOSAR can address the feedback in future revisions.

1.2.2 Usage of W3C XML Schema

The AUTOSAR XML Schema requires the XML namespace definition file xml.xsd.

There are several occurrences of the “xml.xsd” file within this release. For all occurrences the W3C license applies which can be found on `https://www.w3.org/Consortium/Legal/2015/copyright-software-and-document`.

License

By obtaining and/or copying this work, you (the licensee) agree that you have read, understood, and will comply with the following terms and conditions.

Permission to copy, modify, and distribute this work, with or without modification, for any purpose and without fee or royalty is hereby granted, provided that you include the following on ALL copies of the work or portions thereof, including modifications:

The full text of this NOTICE in a location viewable to users of the redistributed or derivative work. Any pre-existing intellectual property disclaimers, notices, or terms and conditions. If none exist, the W3C Software and Document Short Notice should be included. Notice of any changes or modifications, through a copyright statement on the new code or document such as “This software or document includes material copied from or derived from [title and URI of the W3C document]. Copyright © [YEAR] W3C® (MIT, ERCIM, Keio, Beihang).”

Disclaimers

THIS WORK IS PROVIDED “AS IS,” AND COPYRIGHT HOLDERS MAKE NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR THAT THE USE OF THE SOFTWARE OR DOCUMENT WILL NOT INFRINGE ANY THIRD PARTY PATENTS, COPYRIGHTS, TRADEMARKS OR OTHER RIGHTS.

COPYRIGHT HOLDERS WILL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF ANY USE OF THE SOFTWARE OR DOCUMENT.

The name and trademarks of copyright holders may NOT be used in advertising or publicity pertaining to the work without specific, written prior permission. Title to copyright in this work will at all times remain with copyright holders.

1.3 AUTOSAR Standards

1.3.1 Introduction

AUTOSAR addresses a wide range of use cases in automotive software development with its standards. These use cases have different requirements and lead to different technical solutions.

Packaging its deliverables into different standards

- eases the access to AUTOSAR solutions for users and
- allows AUTOSAR to scale with market needs.

1.3.2 Definition

An AUTOSAR standard is a consistent set of AUTOSAR deliverables, which are released at the same time. AUTOSAR deliverables can be of but are not limited to the following kinds:

- Textual explanations
- Textual specifications
- Test specifications
- Source code
- Other formal or semi-formal textual formats (e.g., ARXML, UML models, XML schemata)

At the time of release, AUTOSAR ensures that dependencies are fulfilled.

1.3.3 Overview of AUTOSAR's Standards

AUTOSAR delivers the following standards:

Standard	Abbreviation
Adaptive Platform	AP
Classic Platform	CP
Foundation	FO

1.3.3.1 Adaptive Platform

The Adaptive Platform is AUTOSAR's solution for high-performance computing ECUs to build safety-related systems for use cases such as highly automated and autonomous driving.

1.3.3.2 Classic Platform

The Classic Platform is AUTOSAR's solution for embedded systems with hard real-time and safety constraints.

1.3.3.3 Foundation

The purpose of the Foundation standard is to enforce interoperability between the AUTOSAR platforms.

Foundation contains the generic artifacts that are common for AP and CP to ensure compatibility between

- Classic- and Adaptive Platform and
- Non-AUTOSAR platforms to AUTOSAR platforms.

1.3.4 Dependencies Between Standards

Each release of Classic and Adaptive Platform relies on a dedicated version of Foundation. The specific dependency is documented in chapter 1.4.3.

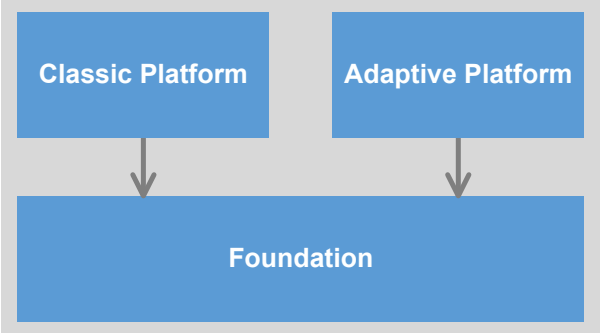


Figure 1.1: Dependencies of AUTOSAR standards

1.3.5 Precedence of Standards

In case of contradictions between AUTOSAR documents, the following precedence applies. For all externally observable communication behavior - such as on-wire message formats and encodings, timing constraints, state machines, and protocol semantics - the Protocol Specifications (PRS) are authoritative.

For software-internal aspects - such as module APIs, configuration parameters, internal state handling, and error reporting that do not affect on-wire behavior - the relevant SWS is authoritative. Where both a PRS and an SWS cover the same subject matter, the PRS shall prevail.

1.4 Release Numbering and Life Cycle

1.4.1 Platform Release Number

AUTOSAR applies a four-digit numbering scheme Ryy-mm to identify releases. The identifiers “yy” and “mm” depict the year and month of the release date, for example, R20-11 for the November 2020 release.

1.4.2 Internal Release Number

AUTOSAR additionally maintains an internal release number for different purposes (e.g., usage in BSW modules in Classic Platform).
The internal release number is used for all platforms and follows up on the Classic Platform release number. This is newly introduced in the Adaptive Platform. For Foundation, this leads to a discontinuation of the former numbering pattern (e.g., R1.5.0).
A mapping between Platform Releases and corresponding internal release numbers can be found in chapter 1.4.3. The internal release number uses a three-digit numbering scheme R<major>.<minor>.<revision> to identify releases. Its primary purpose is to identify a release as

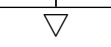
- a major release: Valid and draft specification parts may be changed backward incompatibly.
- a minor release: Valid specification parts may only be changed backward compatibly. Draft specification parts may be changed backward incompatibly.
- a revision: Does not contain extensions but only backward compatible bugfixes.

1.4.3 AUTOSAR Schema Versions

Until the Releases CP R4.4.0 and AP R19-03, AUTOSAR released the platforms separately where a Foundation release went along with each platform release. Since compatibility between the platforms is essential to be able to have AP and CP ECUs within one vehicle project, an XML schema needs to be available that works with the different releases. The following table gives an overview about the different schema versions and the corresponding platform releases they can be used for.

The AUTOSAR schema does not have an impact on the Foundation. The Foundation releases are mentioned for the sake of completeness.

Schema version	Classic Platform release	Adaptive Platform release	Foundation release
AUTOSAR_00042	R4.3.0	R17-03	R1.1.0
AUTOSAR_00043	R4.3.0	R17-10	R1.2.0
AUTOSAR_00044	R4.3.1	R17-10	R1.3.0
AUTOSAR_00045	R4.3.1	R18-03	R1.4.0



△

Schema version	Classic Platform release	Adaptive Platform release	Foundation release
AUTOSAR_00046	R4.4.0	R18-10	R1.5.0
AUTOSAR_00047	R4.4.0	R19-03	R1.5.1

Table 1.1: Mapping schema version to platform releases (until CP R4.4.0/AP R19-03)

Starting with release R19-11, all platforms are released as one AUTOSAR release and therefore come along with one schema version.

Schema version	Platform release	Internal release number
AUTOSAR_00048	R19-11	R4.5.0
AUTOSAR_00049	R20-11	R4.6.0
AUTOSAR_00050	R21-11	R4.7.0
AUTOSAR_00051	R22-11	R4.8.0
AUTOSAR_00052	R23-11	R4.9.0
AUTOSAR_00053	R24-11	R4.10.0
AUTOSAR_00054	R25-11	R4.11.0
AUTOSAR_00055	**R26-11**	**R4.12.0**

Table 1.2: Mapping schema version to platform release and internal release number (since R19-11)

1.4.4 Release Life Cycle of a Major Release

Each major release goes through four consecutive steps within its life cycle (examples based on the internal release numbering scheme):

1. Development: Between the start of life cycle and the initial release (e.g., R4.0.1)
2. Evolution: Following the initial release with zero, one or several minor releases and/or revisions (e.g., R4.0.2, R4.1.1)
3. Maintenance: No new content is added; only maintenance of existing content is provided through zero, one or several revisions (e.g., R3.2.2).
4. Issue Notice: No more revisions but zero, one or several issue notices, i.e., updates of the list of known issues until the end of life cycle.

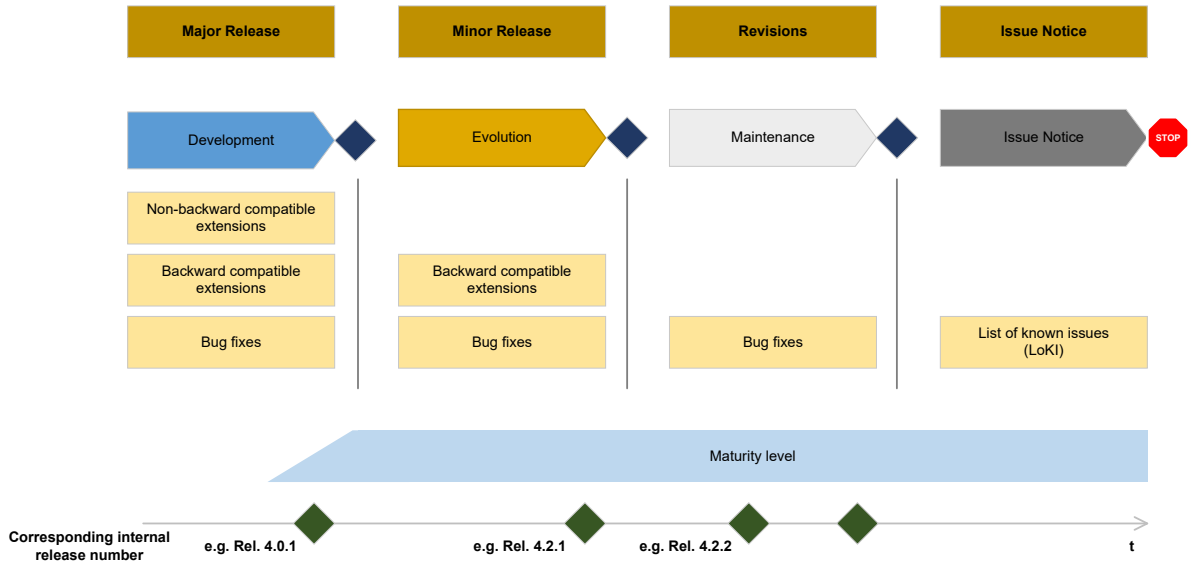


Figure 1.2: Life cycle model of AUTOSAR standards

According to the release life cycle of AUTOSAR the release R26-11 is a minor release.

1.4.5 Life Cycle States of Specification Items and Requirements

The life cycle state of a specification item is found after the specification item ID surrounded by curly brackets. The states are:

VALID This indicates that the related entity is a valid part of the document. This is the default and also applies if no dedicated life cycle status is annotated for the related entity.

DRAFT This indicates that the related entity is newly introduced but still experimental. This information is published but is subject to change without backward compatibility guarantee.

OBSOLETE This indicates that the related entity is subject to be removed in one of the following releases without further notice.

The life cycle state of a requirement is found in the attribute “Status”. The states are the same as the specification item states.

1.5 Content of Chapters

This document is structured as follows:

- Chapter 1 provides an introduction to AUTOSAR’s release strategy and its standardization approach.

- Chapter 2 provides a summary of changes since the previous release of the Foundation.
- Chapter 3 contains the overview of specifications comprising the AUTOSAR Foundation Release R26-11. This chapter is structured according to the clusters being in use in AUTOSAR Foundation Release R26-11.
- Chapter 4 contains remarks about known technical deficiencies.
- Chapter 5 contains the detailed revision history of all released specifications.

2 Summary of Changes in Release R26-11

This chapter contains a summary of changes which have been implemented since the previous release R25-11.

2.1 Concepts

2.1.1 Introduced Concepts

The following concepts in 2.1.1.1 - 2.1.1.4 have been introduced.

2.1.1.1 CANsec

The CANsec concept implements the secure communication protocol CANsec, as specified in CiA 613-2 [2, CiA 613-2]. As such, it brings the following benefits to Classic AUTOSAR:

- Secure communication on CAN XL (at line speed with HW acceleration)
- Secure-by-default, unsecured (bypassed) messages need to be explicitly defined
- Secure communication at OSI layer 2, which allows securing all higher-level protocols
- Built upon AUTOSAR MACsec concepts, i.e., similar configuration and secure network concepts

2.1.1.2 DMA Driver

The concept introduces a standardized MCAL driver for Direct Memory Access (DMA) controllers. Until now, DMA usage on Classic Platform ECUs was implemented either in vendor-specific drivers or privately inside individual peripheral drivers, which made DMA-based data movement hard to reuse and port.

The new DMA Driver (module Dma) provides a hardware-independent interface to configure and control DMA transfers between memory and peripherals with reduced CPU load. Main features are:

- software-triggered (polling or interrupt) and hardware-triggered channels,
- Transfer Control Descriptors (TCDs) with inner and outer loops and transfer-element width adaptation,
- scatter-gather descriptor chaining,
- runtime update of transfer parameters and channel-to-TCD mapping,

- suspend/resume, status query and notification callbacks for completion, transfer errors and hardware errors,
- partition assignment of channels and TCDs for multi-partition systems,
- standardized extension points for hardware-specific configuration (e.g. CRC calculation, circular buffers).

Peripherals with a private DMA engine (e.g. Ethernet controllers) remain under the control of their own drivers.

The concept introduces a standardized DMA Driver for the Classic Platform. In the Foundation, it adds the optional feature `FO_TR_FEAT_00284` (Direct_Memory_Access, child of the `FO_TR_FEAT_00266` MCU abstraction) to the feature model and the term *Direct Memory Access* to the glossary.

2.1.1.3 PostBuild ConfigClass simplification

The concept removes the assignment of configuration classes to configuration times in the Ecu configuration tables and simplifies the chapter 10 of SWS documents. The assignment is replaced by a simpler approach that introduces four boolean flags Post-Build Selectable Multiplicity, Post-Build Selectable Value, Post-Build Loadable Multiplicity, Post-Build Loadable Value to chapter 10 tables.

2.1.1.4 Encryption Support in SecOC

The Secure Onboard Communication functionality has been extended to optionally protect the confidentiality of selected I-PDUs in addition to their authenticity and freshness. Authenticated Encryption with Associated Data (AEAD) can be configured as an alternative to authentication-only protection, sufficient payload capacity of the underlaying communication channel provided. The SecOC processing, configuration, and protocol specifications were updated to support encryption and decryption through the Crypto Service Manager and to introduce dedicated nonce-management interfaces. The corresponding specifications for the AUTOSAR Classic and Adaptive Platforms were updated while retaining backward compatibility with existing authentication-only configurations.

2.1.2 Impact of Concepts

The introduced concepts had impact on several specifications. The following table provides a detailed overview.

Please note that some of the specifications are marked by special text formatting:

- Specifications in **bold** font are completely new specifications originating from the particular concept.

- If specifications or models like the BSW UML model or the ECUC model are only indirectly affected because they just provide artifacts for other specifications, they are not listed here.

Concept Name	Specification Name	Affected Standard	Concept Lifecycle
CANsec	CP SWS BSWModemanager	Classic Platform, Foundation	valid
	CP SWS CANDriver		
	CP SWS CANInterface		
	CP SWS CANXLDriver		
	CP SWS MACsecKeyAgreement		
	FO TR Features		
	FO TR Glossary		
DMA Driver	**CP SWS DMADriver**	Classic Platform, Foundation	draft
	CP EXP LayeredSoftwareArchitecture		
	CP SWS BSWGeneral		
	FO TR Features		
	FO TR Glossary		
PostBuild ConfigClass simplification	CP TPS EcuConfiguration	Classic Platform, Foundation	valid
	CP SWS BSWGeneral		
	FO MMOD MetaModel		
Encryption Support in SecOC	CP TPS SoftwareComponentTemplate	Classic Platform, Adaptive Platform, Foundation	valid
	CP TPS SystemTemplate		
	CP SWS CryptoServiceManager		
	AP TPS ManifestSpecification		
	AP SWS CommunicationManagement		
	CP SWS SecureOnboardCommunication		
	FO PRS SecOCProtocol		
	FO EXP SecurityOverview		
	FO TR Features		

Table 2.1: Impact of concepts

2.1.3 Validated Concepts

The following concepts have been validated:

- none

2.2 Specifications

2.2.1 New Specifications

The following new specifications have been introduced via concepts:

- FO PRS BusMirroringProtocol (Specification of Bus Mirroring Protocol, UID 1151)

In addition to the above listed new specifications, the following documents have been added with this release:

- none

2.2.2 Migrated Specifications

With this release, the following specification has been moved from or to Foundation:

- none

2.2.3 Obsolete Specifications

The following specifications have been set to status “obsolete” in this release:

- none

2.2.4 Removed Specifications

The following specifications have been removed from the AUTOSAR standard:

- FO RS Firewall
  (Requirements on Firewall, UID 1062)
- FO RS IntrusionDetectionSystem
  (Requirements on Intrusion Detection System, UID 976)
- FO RS SecureOnboardCommunication
  (Requirements on Secure Onboard Communication, UID 653)
- FO RS LogAndTrace
  (Requirements on Log and Trace, UID 350)
- FO RS DebugTraceProfile
  (Requirements on Debugging, Tracing and Profiling support of AUTOSAR Components, UID 915)
- FO RS SOMEIPProtocol
  (Requirements on SOME/IP Protocol, UID 800)

- FO RS SOMEIPServiceDiscoveryProtocol
  (Requirements on SOME/IP Service Discovery Protocol, UID 801)
- FO RS NetworkManagement
  (Requirements on AUTOSAR Network Management, UID 927)
- FO RS IEEE1722
  (Requirements on IEEE1722, UID 1092)
- FO RS ProjectObjectives
  (Project Objectives, UID 599)

2.2.5 Reworked Specifications

The following specifications have been changed fundamentally in this release:

- none

2.2.6 Moved Specification Parts

The following specification parts have been moved to other documents in this release:

- none

2.2.7 Renamed Specifications

The following specifications have been renamed in this release:

- FO TPS LogAndTrace
  (Log And Trace Template, UID 1024)

2.3 Release Documentation

There are no major changes in the Release Documentation.

3 Specification Overview

The published specifications are divided into the clusters:

- ReleaseDocumentation
- CommunicationManagement
- Diagnostics
- General
- HealthMonitoring
- MethodologyAndTemplates
- Protocols
- Safety
- Security
- SystemServices

The assignment of the specifications to these clusters is shown below.

Specification Name	Long Name	File Name	Life cycle changes
ReleaseDocumentation			
FO TR ReleaseOverview	Foundation Release Overview	AUTOSAR_FO_TR_Release Overview	
FO TR SpecificationHashes	AUTOSAR Foundation Specification Hashes	AUTOSAR_FO_TR_ SpecificationHashes	
CommunicationManagement			
FO EXP QoSPoliciesInThe ScopeOfSOMEIP	Explanation of QoS Policies in the scope of SOME/IP	AUTOSAR_FO_EXP_Qo SPoliciesInTheScopeOf SOMEIP	
FO EXP TimeSensitiveNetwork Features	Explanation of Time Sensitive Network features	AUTOSAR_FO_EXP_Time SensitiveNetworkFeatures	
FO RS E2E	Requirements on E2E	AUTOSAR_FO_RS_E2E	
FO RS MACsec	Requirements on MACsec	AUTOSAR_FO_RS_MACsec	
Diagnostics			
FO RS Diagnostics	Requirements on Diagnostics	AUTOSAR_FO_RS_ Diagnostics	
General			
FO EXP DiagramSource	Explanation of Diagram Source	AUTOSAR_FO_EXP_Diagram Source	
FO EXP SWArchitectural Decisions	Explanation of Adaptive and Classic Platform Software Architectural Decisions	AUTOSAR_FO_EXP_ SWArchitecturalDecisions	
FO EXP SafetyOverview	Explanation of Safety Overview	AUTOSAR_FO_EXP_Safety Overview	
FO EXP SecurityOverview	Explanation of Security Overview	AUTOSAR_FO_EXP_Security Overview	



△

Specification Name	Long Name	File Name	Life cycle changes
FO MOD Features	AUTOSAR Feature Model	AUTOSAR_FO_MOD_Features	
FO TR Features	Technical Report on AUTOSAR Features	AUTOSAR_FO_TR_Features	
FO TR Glossary	Glossary	AUTOSAR_FO_TR_Glossary	
HealthMonitoring			
FO ASWS HealthMonitoring	Specification of Health Monitoring	AUTOSAR_FO_ASWS_Health Monitoring	
FO EXP SystemHealth Monitoring	Explanation of System Health Monitoring	AUTOSAR_FO_EXP_System HealthMonitoring	
FO RS HealthMonitoring	Requirements on Health Monitoring	AUTOSAR_FO_RS_Health Monitoring	
MethodologyAndTemplates			
FO MMOD MetaModel	Meta Model	AUTOSAR_FO_MMOD_Meta Model	
FO MMOD XMLSchema	Meta Model-generated XML Schema	AUTOSAR_FO_MMOD_ XMLSchema	
FO MOD GeneralBlueprints	Collection of blueprints for AUTOSAR M1 models	AUTOSAR_FO_MOD_General Blueprints	
FO MOD GeneralDefinitions	Standardized M1 Models used for the Definition of AUTOSAR	AUTOSAR_FO_MOD_General Definitions	
FO MOD MiscSupport	AUTOSAR Miscellaneous Support Files	AUTOSAR_FO_MOD_Misc Support	
FO TPS ARXMLSerialization Rules	ARXML Serialization Rules	AUTOSAR_FO_TPS_ ARXMLSerializationRules	
FO TPS AbstractPlatform Specification	Specification of Abstract Platform	AUTOSAR_FO_TPS_Abstract PlatformSpecification	
FO TPS FeatureModel ExchangeFormat	AUTOSAR Feature Model Exchange Format	AUTOSAR_FO_TPS_Feature ModelExchangeFormat	
FO TPS GenericStructure Template	Generic Structure Template	AUTOSAR_FO_TPS_Generic StructureTemplate	
FO TPS LogAndTrace	Log And Trace Template	AUTOSAR_FO_TPS_LogAnd Trace	
FO TPS SecurityExtract Template	Security Extract Template	AUTOSAR_FO_TPS_Security ExtractTemplate	
FO TPS Standardization Template	Standardization Template	AUTOSAR_FO_TPS_ StandardizationTemplate	
FO TPS XMLSchema ProductionRules	AUTOSAR XML Schema Production Rules	AUTOSAR_FO_TPS_ XMLSchemaProductionRules	
FO TR AutosarModel Constraints	Collection of constraints on AUTOSAR M1 models	AUTOSAR_FO_TR_Autosar ModelConstraints	
FO TR XMLSchema Supplement	Supplementary material of the AUTOSAR XML Schema	AUTOSAR_FO_TR_ XMLSchemaSupplement	
Protocols			
FO PRS BusMirroringProtocol	Specification of Bus Mirroring Protocol	AUTOSAR_FO_PRS_Bus MirroringProtocol	initial release
FO PRS DDSCommunication Protocol	Specification of DDS Service Communication Protocol	AUTOSAR_FO_PRS_ DDSCommunicationProtocol	
FO PRS DDSServiceDiscovery Protocol	Specification of DDS Service Discovery Protocol	AUTOSAR_FO_PRS_ DDSServiceDiscoveryProtocol	
FO PRS E2EProtocol	E2E Protocol Specification	AUTOSAR_FO_PRS_E2 EProtocol	

▽

△

Specification Name	Long Name	File Name	Life cycle changes
FO PRS IntrusionDetection System	Specification of Intrusion Detection System Protocol	AUTOSAR_FO_PRS_Intrusion DetectionSystem	
FO PRS LogAndTraceProtocol	Log and Trace Protocol Specification	AUTOSAR_FO_PRS_LogAnd TraceProtocol	
FO PRS NetworkManagement Protocol	Specification of the AUTOSAR Network Management Protocol	AUTOSAR_FO_PRS_Network ManagementProtocol	
FO PRS SOMEIPProtocol	SOME/IP Protocol Specification	AUTOSAR_FO_PRS_ SOMEIPProtocol	
FO PRS SOMEIPService DiscoveryProtocol	SOME/IP Service Discovery Protocol Specification	AUTOSAR_FO_PRS_ SOMEIPServiceDiscovery Protocol	
FO PRS SecOCProtocol	Specification of Secure Onboard Communication Protocol	AUTOSAR_FO_PRS_Sec OCProtocol	
FO PRS TimeSyncOver CANProtocol	Time Synchronization over CAN Protocol Specification	AUTOSAR_FO_PRS_Time SyncOverCANProtocol	
FO PRS TimeSyncOver EthernetProtocol	Time Synchronization over Ethernet Protocol Specification	AUTOSAR_FO_PRS_Time SyncOverEthernetProtocol	
FO PRS V2XRemoteAccess Layer	Vehicle-2-X Remote Access Layer Protocol Specification	AUTOSAR_FO_PRS_V2 XRemoteAccessLayer	
FO PRS VDP	Vehicle Data Protocol Specification	AUTOSAR_FO_PRS_VDP	
FO RS DataDistributionService	Requirements on Data Distribution Service	AUTOSAR_FO_RS_Data DistributionService	
FO RS IPsecProtocol	Requirements on IPsec Protocol	AUTOSAR_FO_RS_IPsec Protocol	
FO RS TimeSync	Requirements on Time Synchronization	AUTOSAR_FO_RS_TimeSync	
FO RS VDP	Requirements on Vehicle Data Protocol	AUTOSAR_FO_RS_VDP	
Safety			
FO RS Safety	Safety Requirements for AUTOSAR Adaptive Platform and AUTOSAR Classic Platform	AUTOSAR_FO_RS_Safety	
Security			
FO TR ListOfKnownIssues SecureHardwareExtensions	List of known Issues of Secure Hardware Extensions	AUTOSAR_FO_TR_ListOf KnownIssuesSecureHardware Extensions	
FO TR SecureHardware Extensions	Specification of Secure Hardware Extensions	AUTOSAR_FO_TR_Secure HardwareExtensions	
FO TR SecurityEvents Specification	Technical Report on Security Events Specification	AUTOSAR_FO_TR_Security EventsSpecification	
SystemServices			
FO TR TimingAnalysis	Timing Analysis and Design	AUTOSAR_FO_TR_Timing Analysis	

Table 3.1: Specification overview

4 Remarks to Known Technical Deficiencies

This section and its subsections provide an overview of several important technical deficiencies of the specification. All known technical deficiencies and limitations are detailed in the individual documents.

There are no technical deficiencies.

5 Release History

5.1 Release R26-11

Specification Name	Specification history entry
FO ASWS HealthMonitoring	• HealthInfo and HealthIndicator interfaces names updated
FO EXP QoSPoliciesInTheScopeOfSOMEIP	• No content changes
FO EXP SWArchitecturalDecisions	• Added decision on guidelines for hardware abstraction in AP • Removed obsolete decision on the V2X stack in CP
FO EXP SafetyOverview	• Fixed formating issues • Added chapter 3.5.6
FO EXP SecurityOverview	• Added chapter AUTOSAR Security Controls • Added chapter POSIX User and Group Identity Configuration • Added encryption for SecOC
FO EXP SystemHealthMonitoring	• No content changes
FO EXP TimeSensitiveNetworkFeatures	• Update of the ATS description
FO PRS BusMirroringProtocol	• Initial release • Based on the bus mirroring protocol definition extracted from CP SWS Bus Mirroring
FO PRS DDSCommunicationProtocol	• Removed references to discontinued AP RS Communication Management
FO PRS DDSServiceDiscoveryProtocol	• No content changes
FO PRS E2EProtocol	• Write/Read CRC steps for Profile 5 updated to use profile-specific byte order
FO PRS IntrusionDetectionSystem	• Tracing to Requirements Specification IntrusionDetectionSystem removed
FO PRS LogAndTraceProtocol	• Replaced "LT" with "DLT" for consistency • Replaced "L&T" with "Log and Trace" • Added Relative Timestamp mechanism and per-Source monotonicity for the ns-Timestamp (TMSP2) • Removed Requirements Traceability • Added configuration of payload endianness
FO PRS NetworkManagementProtocol	• Harmonized naming of PNC Request Bit Vector • Moved use cases from discontinued RS NetworkManagement into this document
FO PRS SOMEIPProtocol	• Added requirements on allowed characters in strings and padding of fixed-length strings • Clarified server response addressing and concurrent requests handling • Clarified handling of fixed-length strings exceeding the defined size and with reduced size • Clarified Client ID uniqueness within a machine • Removed requirement on compatibility of changes of the payload format • Editorial Changes and bug fixes

▽

△

Specification Name	Specification history entry
FO PRS SOMEIPServiceDiscoveryProtocol	• Clarified the timing behavior for optimized multicast responses to `FindService` requests, including the `CYCLIC_OFFER_DELAY` reference point • Clarified optimized unicast and multicast response handling for service discovery • Clarified subscription triggering and server-reboot handling • Clarified subscription acknowledgement processing and the sequencing of `StopSubscribeEventgroup` and `Subscribe Eventgroup` entries
FO PRS SecOCProtocol	• Update traceable links • Added new spec items related SecOC encryption feature
FO PRS TimeSyncOverCANProtocol	• No content changes
FO PRS TimeSyncOverEthernetProtocol	• Fixed element order for CRC calculation during validation of RxSub TLVTime • Clarified behaviour of FVL fields in AUTOSAR Sub-TLV
FO PRS V2XRemoteAccessLayer	• Freeze document
FO PRS VDP	• Set all items to valid, i.e. the status from *draft* to *released* • Protocol Version 2.0: – Consistent definitions of length fields – Define OMH inside Error Message consistently • Minor corrections / clarifications / editorial changes; For details please refer to the ChangeDocumentation
FO RS DataDistributionService	• No content changes
FO RS Diagnostics	• New requirements for CP and AP • New chapter for DoIP-related requirements
FO RS E2E	• No content changes
FO RS HealthMonitoring	• Editorial changes
FO RS IPsecProtocol	• Added IKEv2 Post-quantum Security Extension support according to IETF RFC 8784
FO RS MACsec	• Removal of references to AP_RS_Cryptography, which is no longer part of AUTOSAR, from the dependencies of the requirements on Key Derivation Function, cipher suites and ICV generation/validation • Removal of references to FO_RS_IntrusionDetectionSystem, which is no longer part of AUTOSAR, from the supporting material of the requirement on MACsec Security Events
FO RS Safety	• Added Persistency requirements and trace group • Added Communication requirements • Deleted some OSI requirements
FO RS TimeSync	• Editorial change of Requirement Titles
FO RS VDP	• No content changes
FO TPS ARXMLSerializationRules	• No content changes
FO TPS AbstractPlatformSpecification	• No content changes
FO TPS FeatureModelExchangeFormat	• No content changes
FO TPS GenericStructureTemplate	• Harmonize top-level package structure • Include first set of Impositions Times • Rework of Lower Multiplicity • Removal of parameter tables definition • Enable automatic generation of Splitkeys

▽

△

Specification Name	Specification history entry
FO TPS LogAndTrace	• Replaced DltArgumentProps.networkRepresentation by DltArgument Props.networkRep to fix a variation point issue in the XML Schema • Improved documentation of non-verbose mode messages; for details please see the change history
FO TPS SecurityExtractTemplate	• Various fixes and improvements
FO TPS StandardizationTemplate	• Improve formalization of: document categories ([TPS_STDT_00150]), document publishing status ([TPS_STDT_00152]) • Formal definition of all traceable meta-data fields ([TPS_STDT_00154]) • Removal of `ClientServerOperationBlueprintMapping`, `ClientServerInterfaceToBswModuleEntryBlueprintMapping` and related chapters
FO TPS XMLSchemaProductionRules	• No content changes
FO TR Features	• Add feature CANsec • Add feature Direct_Memory_Access
FO TR Glossary	• Replaced initialism LT by DLT (Log and Trace Protocol) • Added acronyms/initialisms: CM (Communication Module), DCA (Data Class Adapter), DMA (Direct Memory Access), DP (Data Point), HPC (High performance computer or high performance computing machine), VDP (Vehicle Data Protocol) • Added terms: Direct Memory Access, PNC Request Bit Vector, Short Name-path • Clarifications of further terms and acronyms
FO TR ListOfKnownIssuesSecureHardware Extensions	• No content changes
FO TR ReleaseOverview	• Release Life Cycle Status: R26-11 is in Evolution, R26-11 supersedes R25-11
FO TR SecureHardwareExtensions	• No content changes
FO TR SecurityEventsSpecification	• Re-design of SOME/IP SEvs • Harmonization of SEvs between CP and AP • Rework of Chapter 4 table
FO TR TimingAnalysis	• Definition of measurement and interpretation rules for Executable Entity timing (CET, GET, RT) • Removal of AP_TIMEX content • Clarification of the relation between OsTaskExecutionBudget and CET and GET • ASAM ARTI renamed to ASAM TDF

Table 5.1: Overview of specification changes in R26-11