Document Title	Foundation Release Overview
Document Owner	AUTOSAR
Document Responsibility	AUTOSAR
Document Identification No	781

Document Status	Final
Part of AUTOSAR Standard	Foundation
Part of Standard Release	1.5.1
Release Life Cycle Status	R1.5.1 is in Evolution, R1.5.1 supersedes R1.5.0

Document Change History

Date	Release	Changed by	Description
2019-03-29	1.5.1	AUTOSAR Release Management	Updated according to Release 1.5.1
2018-10-31	1.5.0	AUTOSAR Release Management	Updated according to Release 1.5.0
2018-03-29	1.4.0	AUTOSAR Release Management	Updated according to Release 1.4.0
2017-12-08	1.3.0	AUTOSAR Release Management	Updated according to Release 1.3.0
2017-10-27	1.2.0	AUTOSAR Release Management	Updated according to Release 1.2.0
2017-03-31	1.1.0	AUTOSAR Release Management	Updated according to Release 1.1.0
2016-11-30	1.0.0	AUTOSAR Release Management	Initial release

Table of Contents

1 Introduction

1.1 Scope of this document

This document provides an overview of the complement of AUTOSAR specifications of the AUTOSAR standard “Foundation” comprising the initial Release 1.5.1 and its latest Revision.

1.2 AUTOSAR standards

1.2.1 Introduction

AUTOSAR addresses with its standards a wide range of use cases in automotive software development. 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
- allows AUTOSAR to scale with market needs

1.2.2 Definition

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

- textual explanations
- textual specifications
- test specification
- source code
- other formal or semi-formal textual formats (e.g. ARXML, UML models, XML Schemata)

Each AUTOSAR Standard has its own release schedule. At the time of release, AUTOSAR ensures that the dependencies are fulfilled when a standard depends on another.

1.2.3 Overview on AUTOSAR’s standards

AUTOSAR delivers the following standards:

Cluster / Standard	Abbreviation
Classic Platform	CP
Adaptive Platform	AP
Foundation	FO

1.2.3.1 Foundation

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

Foundation contains common requirements and technical specifications (e.g. protocols) shared between the AUTOSAR platforms.

1.2.3.2 Classic Platform

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

1.2.3.3 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.

1.2.4 Dependencies between Standards

Each release of Classic and Adaptive Platform relies on a dedicated version of Foundation. The specific dependency is documented in the release overview of the respective standard.

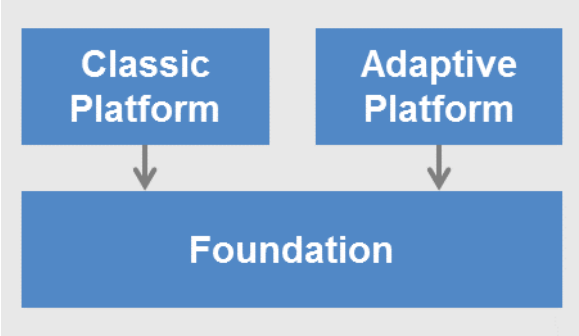

Figure 1: Dependencies of AUTOSAR Standards

1.2.5 Overview of AUTOSAR schema versions and corresponding valid AUTOSAR releases

Schema Version	Classic Platform Release	Adaptive Platform Release
AUTOSAR_00042	R 4.3.0	17-03
AUTOSAR_00043	R 4.3.0	17-10
AUTOSAR_00044	R 4.3.1	17-10
AUTOSAR_00045	R 4.3.1	18-03
AUTOSAR_00046	R 4.4.0	18-10
AUTOSAR_00047	R 4.4.0	19-03

1.3 Content of chapters

This document is structured as follows:

- Chapter 2 provides a list of documentation references.
- Chapter 3 contains the overview of specifications comprising the AUTOSAR Foundation Release 1.5.1 in its latest Revision. This chapter is structured according to the clusters being in use in AUTOSAR Foundation Release 1.5.1.
- Chapter 4 provides a summary of changes e.g. in case a document has been migrated from another standard like the Classic Platform.
- Chapter 5 contains remarks about known technical deficiencies.
- Chapter 6 contains the detailed revision history of all released specifications.
- Chapter 7.1 provides a set of definitions aimed to increase the understanding of the content of this document and the AUTOSAR Foundation Release 1.5.1.

2 Related documentation

1) AUTOSAR specifications in general
2) Glossary

3 Specification overview

3.1 Release 1.5.0

The published specifications are divided into the following clusters:

- Release Documentation
- General
- Diagnostics
- Methodology and Templates
- Communication Management
- Health Monitoring
- Protocols

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

Long Name	File Name	Life cycle changes	Draft Specification
Release Documentation			
Foundation Release Overview	AUTOSAR_TR_FoundationReleaseOverview		
AUTOSAR Foundation Specification Hashes	AUTOSAR_TR_FoundationSpecificationHashes		
Communication Management			
Requirements on AUTOSAR Network Management	AUTOSAR_RS_NetworkManagement	Initial release	
Requirements on E2E	AUTOSAR_RS_E2E		x
Requirements on Log and Trace	AUTOSAR_RS_LogAndTrace		
Requirements Requirements on Tracing and Timing-Analysis support of AUTOSAR Components	AUTOSAR_RS_FoundationDebugTraceProfile	Initial release	
Diagnostics			
Requirements on Diagnostics	AUTOSAR_SRS_Diagnostics		
Methodology and Templates			
Requirements on Methodology	AUTOSAR_RS_Methodology		
Health Monitoring			
Requirements on Health Monitoring	AUTOSAR_RS_HealthMonitoring		x
Specification of Health Monitoring	AUTOSAR_SWS_HealthMonitoring		x
General			
Explanation of Foundation Diagram Source	AUTOSAR_EXP_FoundationDiagramSource		

Long Name	File Name	Life cycle changes	Draft Specification
Glossary	AUTOSAR_TR_Glossary		
Main Requirements	AUTOSAR_RS_Main		
Project Objectives	AUTOSAR_RS_ProjectObjectives		
Protocols			
E2E Protocol Specification	AUTOSAR_PRS_E2EProtocol		
Log and Trace Protocol Specification	AUTOSAR_PRS_LogAndTrace Protocol		
Requirements on SOME/IP Protocol	AUTOSAR_RS_SOMEIPProtocol		
Requirements on SOME/IP Service Discovery Protocol	AUTOSAR_RS_SOMEIPService DiscoveryProtocol		
Requirements on Time Synchronization	AUTOSAR_RS_TimeSync	Initial release	x
SOME/IP Protocol Specification	AUTOSAR_PRS_SOMEIP Protocol		
SOME/IP Service Discovery Protocol Specification	AUTOSAR_PRS_SOMEIPService DiscoveryProtocol		
Specification of the AUTOSAR Network Management Protocol	AUTOSAR_PRS_Network ManagementProtocol	Initial release	
Time Synchronization Protocol Specification	AUTOSAR_PRS_TimeSyncProtoc ol	Initial release	

3.2 Release 1.5.1

Long Name	File Name	Life cycle changes	Draft Specification
Release Documentation			
Foundation Release Overview	AUTOSAR_TR_FoundationRelease Overview		
AUTOSAR Foundation Specification Hashes	AUTOSAR_TR_Foundation SpecificationHashes		
Communication Management			
Requirements on AUTOSAR Network Management	AUTOSAR_RS_Network Management		
Requirements on Debugging, Tracing and Profiling support of AUTOSAR Components	AUTOSAR_RS_Foundation Debug TraceProfile		
Requirements on E2E	AUTOSAR_RS_E2E		x
Requirements on Log and Trace	AUTOSAR_RS_LogAndTrace		
Diagnostics			
Requirements on Diagnostics	AUTOSAR_SRS_Diagnostics		
Methodology and Templates			
Requirements on Methodology	AUTOSAR_RS_Methodology		
Health Monitoring			
Requirements on Health Monitoring	AUTOSAR_RS_HealthMonitoring		
Specification of Health Monitoring	AUTOSAR_SWS_HealthMonitoring		
General			
Explanation of Foundation Diagram Source	AUTOSAR_EXP_Foundation DiagramSource		
Glossary	AUTOSAR_TR_Glossary		
Main Requirements	AUTOSAR_RS_Main		
Project Objectives	AUTOSAR_RS_ProjectObjectives		
Protocols			
E2E Protocol Specification	AUTOSAR_PRS_E2EProtocol		
Log and Trace Protocol Specification	AUTOSAR_PRS_LogAndTrace Protocol		
Requirements on SOME/IP Protocol	AUTOSAR_RS_SOMEIPProtocol		
Requirements on SOME/IP Service Discovery Protocol	AUTOSAR_RS_SOMEIPService DiscoveryProtocol		
Requirements on Time Synchronization	AUTOSAR_RS_TimeSync		x
SOME/IP Protocol Specification	AUTOSAR_PRS_SOMEIP Protocol		
SOME/IP Service Discovery Protocol Specification	AUTOSAR_PRS_SOMEIPService DiscoveryProtocol		
Specification of the AUTOSAR Network	AUTOSAR_PRS_Network ManagementProtocol		

Long Name	File Name	Life cycle changes	Draft Specification
Management Protocol			
Time Synchronization Protocol Specification	AUTOSAR_PRS_TimeSync Protocol		

4 Summary of changes

This chapter contains a summary of changes which were implemented. This can have the following sources:

- Regular maintenance of document
- Documents have been migrated from the Classic Platform or Adaptive Platform to the Foundation
- New documents have been created and are first time released
- Documents went through a major rework

4.1 Release 1.5.0

The purpose of the Foundation standard is to enforce interoperability between the AUTOSAR platforms and therefore contains common requirements and technical specifications (e.g. protocols) shared between the AUTOSAR platforms.

With the current release, this goal has been pursued once more. Especially in the technical fields of end-to-end communication protection, network management and time synchronization via communication busses progress has been made towards harmonization between Classic and Adaptive Platform.

4.1.1 Concepts

4.1.1.1 Introduced Concepts

The following concepts in 4.1.1.1.1 have been introduced.

4.1.1.1.1 Extended Serialization for Data Structures in SOME/IP with tag/length/value encoding (TLV)

The concept TLV is released as draft and will be validated in 2019.

The concept adds support for improved forward and backward compatibility during evolution of interfaces on SOME/IP protocol-level. Moreover, the concept integrates support for optional struct members on protocol-level and application-level (RTE and ara::com).

4.1.1.1.2 AUTOSARRunTimeInterface

The concept "AUTOSARRunTimeInterface" is released as draft and will be validated in 2019.

The concept "ARTI" defines an interface between build tools and debugging/tracing tools to the AUTOSAR standard. It defines standardized hooks that AUTOSAR components shall contain and also defines a model to export information about the internal representation of the components to ease debugging and tracing.

4.1.1.1.3 SecurityExtensions

The concept adds important security controls to the AUTOSAR framework which support the efficient implementation of secure automotive systems.
The extensions include secure logging, vehicle key and certificate management, authentic time and diagnostic policy management.

4.1.2 Specifications

4.1.2.1 New Specifications

- Requirements on Time Synchroinzation (UID 906, RS)
- Time Synchronization Protocol Specification (UID 897, PRS)
- Requirements on Network Management (UID 927, RS)
- Specification of the AUTOSAR Network Management Protocol (UID 928, PRS)
- Requirements on Debugging,Tracing and Profiling support of AUTOSAR Components (UID 915, RS)

4.1.2.2 Migrated Specifications

With this release, the following specifications were moved from Adaptive Platform to the Foundation standard:

- Requirements on Adaptive Network Management (UID 898, RS), merged with the new document Requirements on Network Management (UID 927, RS)

With this release, the following specifications were moved from Classic Platform to the Foundation standard:

- Requirements on Synchronized Time-Base Manager (UID 420, SRS), merged with the new document Requirements on Time Synchronization (UID 906, RS)

4.1.2.3 Obsolete Specifications

The following specification is set to status “obsolete” in this release:

- none

4.1.2.4 Draft Specification

The status of the following specifications are set to “draft” in this release:

- Requirements on Health Monitoring (UID 878, RS)
- Specification of Health Monitoring (UID 850, SWS)
- Requirements on Time Synchroinzation (UID 906, RS)

- Requirements on E2E (UID 847, RS)

4.1.3 Release Documentation

There were no major changes regarding the Release Documentation.

4.2 Release 1.5.1

The purpose of the Foundation standard is to enforce interoperability between the AUTOSAR platforms and therefore contains common requirements and technical specifications (e.g. protocols) shared between the AUTOSAR platforms.

With the current release, this goal has been pursued once more. Especially in the technical fields of end-to-end communication protection, network management and time synchronization via communication busses progress has been made towards harmonization between Classic and Adaptive Platform.

4.2.1 Concepts

4.2.1.1 Introduced Concepts

No Concepts have been introduced with FO R1.5.1.

4.2.2 Specifications

4.2.2.1 New Specifications

No new specifications have been introduced with FO R1.5.1.

4.2.2.2 Migrated Specifications

No specifications have been migrated with FO R1.5.1.

4.2.2.3 Obsolete Specifications

The following specification is set to status “obsolete” in this release:

- No specifications were set to “obsolete”.

4.2.2.4 Draft Specification

The status of the following specifications are set to “draft” in this release:

- Requirements on Time Synchroinzation (UID 906, RS)
- Requirements on E2E (UID 847, RS)

4.2.2.5 Cancelled Specifications

The following specification is canceled in this release:

- No specifications were canceled.

4.2.2.6 Removed Specifications

The following specification is canceled in this release:

- No specifications were removed.

4.2.3 Release Documentation

There were no major changes regarding the Release Documentation.

5 Remarks to known technical deficiencies

The technical deficiencies per specification are – if applicable – mentioned inside the respective specification in a chapter called “Known Limitations” which is located after the table of contents.

There are the following technical deficiencies to be mentioned which are not related to a specific specification:

- None

5.1 Release 1.5.0

5.1.1 Known technical deficiencies per document

- **E2E Protocol Specification (UID 849, PRS):** E2E communication protection is limited to periodic or semi-periodic data communication paradigm, where the receiver (subscriber) has an expectancy on the regular reception of data and in case of communication loss/timeout or error, performs an error handling.
  Data communication is called sender/receiver in Classic Platform, and it is called event communication in Adaptive Platform.
  Note that the word event is a bit confusing as a periodic communication is required. This means, a protection of client-server (methods) as well as non-periodic data communication (e.g. transmission only on occurrence of a specific event) are not supported by E2E communication protection.

- **Requirements on Health Monitoring (UID 878, RS)** is set back to status "draft" and **Specification of Health Monitoring (UID 850, SWS)** is set to status "draft" with the initial release. Both specifications currently only describe the Adaptive Platform part and are therefore treated like Adaptive Platform specifications which are not handled with the AUTOSAR Change Management Process for Foundation. A clear separation between the documents in all three standards, Classic Platform, Adaptive Platform and Foundation is foreseen in the upcoming releases AP R19-10, CP R4.5.0 and FO R1.6.0.

5.2 Release 1.5.1

5.2.1 Known technical deficiencies per document

- **E2E Protocol Specification (UID 849, PRS):** E2E communication protection is limited to periodic or semi-periodic data communication paradigm, where the receiver (subscriber) has an expectancy on the regular reception of data and in case of communication loss/timeout or error, it performs an error handling. Data communication is called sender/receiver in Classic Platform, and it is called event communication in Adaptive Platform. Note that the word event is a bit confusing as a periodic communication is required. This means, a protection of client-server (methods) as well as non-periodic data communication (e.g. transmission only on

occurence of a specific event) are not supported by E2E communication protection.

- **Specification of Health Monitoring (UID 850, SWS):**
  - Support of multiple instantiation of Supervised Entities is platform specific and should be described in the platform specifications. Currently this is not supported for CP. ([RS_HM_09240]).
  - Support of multiple instantiation of checkpoints in a Supervised Entities instance is platform specific and should be described in the platform specifications. Currently this is not supported for CP. ([RS_HM_09241])
    Note: This means that multiple instantiation of the same Supervised Entity or multiple instantiation of Checkpoints is currently supported only by AP and not by CP

- **Log and Trace Protocol Specification (UID 787, PRS):** The available (free) bandwidth of the communications bus should be taken into consideration to not influence the regular communication too much.

- **Specification of the AUTOSAR Network Management Protocol (UID 928, PRS):**
  - One NM instance is associated with only one NM cluster in one network. One NM cluster can have only one instance of Nm in one node.
  - The maximum size of the NM message is limited by the used communication bus.

- **SOME/IP Protocol Specification (UID 696, PRS):** This document gives a holistic overview over SOME/IP but doesn't state any requirements towards any implementation of BSW modules. Please be aware that not all parts of SOME/IP may be implemented in AUTOSAR.

- **Time Synchronization Protocol Specification (UID 897, PRS):**
  - No support of BMCA protocol, like specified in [1, IEEE 802.1 AS]
  - No support of Announce and Signaling messages, like specified in [1, IEEE 802.1 AS].
  - The reception of a Pdelay_Req is not taken as a pre-condition to start with the transmission of Sync messages.
  - The Rate Correction will be performed by the Time synchronization protocol, which does not require the Pdelay mechanism. For some applications, e.g. for Audio/Video, it might be necessary to use Pdelay based Rate Correction performed by Time synchronization protocol itself, which is optional and not considered by this specification.
  - Because of the above point, the Time synchronization protocol will not maintain the Ethernet HW clock but may use it as a source for the Virtual Local Time.
  - While IEEE 802.1AS states, that IEEE 802.1AS message shall not have a VLAN tag nor a priority tag, the Time synchronization protocol would allow Time Synchronization on VLANs under the condition, that the switch HW supports forwarding of reserved multicast addresses using the range of 01:80:C2:00:00:00 .. 0F

6 Revision history

6.1 Release 1.5.0

Revision 0 of Release 1.5 has been released on the 31st of October 2018. The following deliverables had major changes.

Name	Specification history entry
E2E Protocol Specification	• Migrated all functional specifications from Classic Platform's SWS E2ELibrary into Foundation's E2E Protocol Specification • Moved all figures and tables out of specifications and added references to them • Fixed duplicate/missing figures in profiles 2 (Calculate DeltaCounter), 5 (Read CRC), 6 (Read Counter) and 11 (Read DataIDNibble). • Added protocol examples for each profile
Glossary	• Extended abbreviations • Added terms: ○ AUTOSAR Run-Time Interface ○ Bus Mirroring ○ Cluster ○ Executable Entity Cluster ○ Execution Order Constraint ○ Execution Time ○ LIN Bus Idle ○ Log and Trace ○ Logical Execution Time ○ Mappable Element ○ Security Event ○ Synchronization Points ○ Timed Communication • Changed OSEK references • Incorporated concepts as draft: ○ AUTOSAR Run-Time Interface ○ MCAL Multicore Distribution ○ Transport Layer Security
Log And Trace Protocol Specification	• LT Command SyncTimeStamp added • Editorial changes
Main Requirements	• Restructuring of RS_Main by splitting into functional and non-functional requirements, separating Platform Level candidates • New requirements from concepts TLS (Draft), Bus Mirroring, ARTI (Draft) • Improvement of requirements for topics like Security and Communication
Network Management Protocol Specification	• Initial release
Project Objectives	• Editorial changes

Name	Specification history entry
Requirements on Diagnostic	• New requirements for CP and AP • Structural optimization of document
Requirements on Debugging, Tracing and Profiling support of AUTOSAR Components	• Initial release
Requirements on E2E	• Editorial changes
Requirements on Health Monitoring	• Document from Release 1.4.0 released again
Requirements on Log and Trace	• Requirement to provide Logging Information added • Editorial changes
Requirements on Methodology	• scope of some requirements extended (from CP to CP+AP)
Requirements on Network Management	• Initial release
Requirements on SOME/IP Protocol	• No content changes
Requirements on SOME/IP Service Discovery Protocol	• Editorial changes
Requirements on Time Synchronization	• Initial release
SOME/IP Protocol Specification	• Backward-incompatibility statement removed • Some statements improved
SOME/IP Service Discovery Protocol Specification	• Clarify load balancing option usage • Contradicting requirements improved • Redundant requirements removed
Specification of Health Monitoring	• Document from Release 1.4.0 released again
Time Synchronization Protocol Specification	• Initial release

6.2 Release 1.5.1

Revision 1 of Release 1.5 has been released on the 29th of March 2019. The following deliverables had major changes.

Name	Specification history entry
E2E Protocol Specification	• clarification on choosing suitable maximum data lengths for E2E profiles.
Explanation of Foundation Diagram Source	• No content changes

Name	Specification history entry
Foundation Release Overview	• Updated according to Release 1.5.1
Glossary	• Editorial changes
Log and Trace Protocol Specification	• No content changes
Main Requirements	• No content changes
Project Objectives	• No content changes
Requirements on AUTOSAR Network Management	• No content changes
Requirements on Debugging, Tracing and Profiling support of AUTOSAR Components	• No content changes
Requirements on Diagnostics	• No content changes
Requirements on E2E	• Functional overview: information added • Functional requirements: information added • New requirements added (RS_E2E_08544, RS_E2E_08545, RS_E2E_08546, RS_E2E_08547, RS_E2E_08548)
Requirements on Health Monitoring	• Editorial changes
Requirements on Log and Trace	• No content changes
Requirements on Methodology	• No content changes
Requirements on SOME/IP Protocol	• No content changes
Requirements on SOME/IP Service Discovery Protocol	• No content changes
Requirements on Time Synchronization	• No content changes
SOME/IP Protocol Specification	• No content changes
SOME/IP Service Discovery Protocol Specification	• Editorial changes
Specification of Health Monitoring	• Updated acronyms table • Added chapter with not applicable requirements • Added SWS_HM_00460 and SWS_HM_00461 • Updated traceability to requirements of RS Health Monitoring • Moved figures out of requirement trace items
Specification of the AUTOSAR Network Management Protocol	• No content changes

Name	Specification history entry
Time Synchronization Protocol Specification	• Clarification of SGW value handling • minor changes

7 Appendix

7.1 Definitions

As far as not explained in this chapter, a collection of AUTOSAR definitions is provided in 2).

7.1.1 Release number

AUTOSAR applies a two-digit numbering scheme Rx.y to identify Releases. Its primary purpose is to identify a Release as a major (upgrade, can contain non-backward-compatible extensions) or as minor (update, backward compatible extensions) Release. Referring to previous Releases (e.g. R2.0), incrementing the first digit “x” does identify a Release as major, whereas incrementing “y” will mark a Release as only minor by nature.

7.1.2 Revision number

The Revision Number was first time introduced with Release 2.1 and extends the Release Numbering scheme as explained in section 7.1.1. Combined with the Release Number, the Revision Number shall:

1) Precisely identify the actual content (set of specifications) of a given Release.
2) As depicted in every specification, precisely identify a given specification (with its unique name and three-digit version ID) as being part of the Release.

Item 1) addresses the fact that the set of specifications comprising a Release (in the meaning of a baseline) is rarely established once at a certain point in time (“Big Bang”), but rather evolves and/or varies over a certain timeframe. The maximum duration, which is limited by the timeframe, a Release is declared as “valid” by the AUTOSAR Partnership (see section 7.1.3).

Hence with Item 1), a major prerequisite will be put in place to enable the Standard Maintenance as planned by the AUTOSAR Partnership. In general, the primary objective is to avoid the provision of an additional – previously not planned – Release in case only one or a few specifications were to be modified as part of the Standard Maintenance. Conversely, without the application of a Revision Number, if the AUTOSAR partnership wants to avoid the provision of (an) additional intermediate Release(s), one would have to defer the introduction of any changes until the next planned Release – even in case of changes urgently needed by the applicants of the AUTOSAR Standard.

Item 2) is complementary to Item 1) in that for every specification a unique identifier is provided upon which Revision a) a specification was either 1st time added to/removed from a Release or b) a specification was modified as being part of one and the same Release, as long the latter is valid and therefore subject to Standard Maintenance.

Hence with item 2), the combination of Release and Revision Number in a specification can be interpreted either as a) “specification was (1st time) added to the Release x.y Rev n” or b) as “specification was modified as part of Release x.y Rev m”, with m > n.

Conversely, the Revision number will only change for specifications subject to addition or modification of a valid Release (baseline). After their 1st time addition to the Release (baseline), it will not change for specifications which are not modified.

In the light of the above provided background, as an additional remark, the Revision Number will only be applied for each specification’s Release version, i.e. it will not be applied to working versions.

7.1.3 Release life cycle of a major release

Each major release goes through four consecutive steps within its lifecycle:

1. Development: Between 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 contents is added to a major release but only maintenance of the existing content with zero, one or several revisions (e.g. R3.2.2) is provided
4. Issue Notice: No more revisions but zero, one or several issue notices, i.e. updates of the list of known issues until end of life cycle.

7.1.4 Specification item and requirement life cycle states

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.
- **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 obsolete and will be removed in the next release.

If there is no life cycle state information stated then the state is Valid.

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

7.1.5 History information in AUTOSAR

The following diagram shows where which changes are documented.