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# 1 Scope of this Document

This document provides an overview of the complement of AUTOSAR documents comprising the Acceptance Tests Release 1.0 in its latest Revision 0.

## 1.1 Document Overview

This document is structured as follows:

Chapter 2 provides a list of documentation references.

Chapter 3 provides a summary of changes that were implemented since the preceding Release.

Chapter 4 contains the overview of documents comprising the Release 1.0 in its latest Revision 0.

Chapter 5 contains remarks about known technical deficiencies.

Chapter 6 contains the detailed Revision History.

Chapter 7 provides a set of definitions aimed to increase the understanding of the content of this document and the Acceptance Tests Release 1.0.

## 2 Related Documentation

- [1] Glossary  
AUTOSAR\_TR\_Glossary.pdf

### **3 Acceptance Tests Release 1.0 – Summary of Changes**

The Acceptance Tests Release 1.0 is the first release of acceptance tests by the AUTOSAR Partnership.

## 4 Acceptance Tests Release 1.0 – Document Overview

As of the latest Revision 0, the following documents are part of the Acceptance Tests Release 1.0.

<i>Document</i>	<i>Classifi- cation</i>	<i>File Name</i>
Acceptance Test Specification of RTE	std	AUTOSAR_ATS_RTE
Acceptance Test Specification of Ecu Mode Management	std	AUTOSAR_ATS_EcuModeManagement
Acceptance Test Specification of communication via bus	std	AUTOSAR_ATS_CommunicationViaBus
Acceptance Test Specification of Communication Management	std	AUTOSAR_ATS_CommunicationManagement
Acceptance Test Specification of Communication on CAN bus	std	AUTOSAR_ATS_CommunicationCan
Acceptance Test Specification of Communication on LIN bus	std	AUTOSAR_ATS_CommunicationLin
Acceptance Test Specification of Communication on FlexRay bus	std	AUTOSAR_ATS_CommunicationFlexRay
Acceptance Test Specification of Memory Stack	std	AUTOSAR_ATS_MemoryStack
Acceptance Test Specification of Diagnostic Services	std	AUTOSAR_ATS_DiagnosticServices
Acceptance Tests Main Requirements	aux	AUTOSAR_ATR_Main
Feature Specification of the Acceptance Tests	aux	AUTOSAR_ATR_Features
Requirements on Acceptance Tests	aux	AUTOSAR_ATR_Requirements
Overview of Acceptance Tests	aux	AUTOSAR_EXP_AcceptanceTestsOverview
Applicability of test cases to software releases	aux	AUTOSAR_TR_ATSReleaseApplicability

### 4.1 Applicability to AUTOSAR Releases

The tests specification released as of the latest Revision 0 of the AUTOSAR Acceptance Tests Release 1.0 are applicable to the software specification of the AUTOSAR Release 4.1, Revision 1.

Earlier releases of the AUTOSAR software specification are supported in the following ways:

- When test cases are known to be applicable to earlier releases Release 4.0 Revision 3 or Release 3.2 Revision 2, this is mentioned in the “AUTOSAR Releases” field of the test case specifications.  
The applicability of all test cases to the AUTOSAR software specification releases is summarized in the document AUTOSAR\_TR\_ATSReleaseApplicability.
- When test cases are known to require adaptations (in their configuration requirements or test sequences), this is mentioned in the “Needed Adaptation to other Releases” field of the test case specifications.

## 5 Remarks to Known Technical Deficiencies

The technical deficiencies per document 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 document:

- **Requirements traceability**

Traceability from the AUTOSAR test specifications to the AUTOSAR software specifications, at feature, requirement or test case / SWS level is not complete.

- **Requirements on configuration**

The scope of the standard acceptance tests is to test an ICC1 stack. The configuration of the stack is needed to test the standard behaviors. Configuration therefore has to be expressed with upstream template parameters. It is however not always possible or useful:

- diagnostic test cases
- RTE test cases

In such case, ECU configuration parameters have been used.

## 6 Revision History of the Release 1.0

The Acceptance Test specification has been released the first time on the 22nd of July 2014. The release comprised the following deliverables.

<b>Specification</b>		
<b>Name</b>	<b>State</b>	<b>Comment</b>
Acceptance Test Specification of RTE	added	Initial release, including test suites on <ul style="list-style-type: none"> <li>RS_BRF_01312 – Rte Client Server Communication</li> <li>RS_BRF_01320 &amp; RS_BRF_01328 – Rte SWC scheduling and activation from events</li> <li>RS_BRF_01376 – Rte Data Conversion</li> <li>RS_BRF_01304/RS_BRF_01352 – Rte Sender Receiver Communication</li> </ul>
Acceptance Test Specification of Ecu Mode Management	added	Initial release, including test suites on <ul style="list-style-type: none"> <li>RS_BRF_01488 – EcuM Current Mode</li> <li>RS_BRF_01488 – EcuM State Request</li> <li>RS_BRF_02152 – EcuM Boot Target</li> <li>RS_BRF_02152 – EcuM Shutdown Target</li> </ul>
Acceptance Test Specification of communication via bus	added	Initial release, including test suites on <ul style="list-style-type: none"> <li>RS_BRF_01600</li> <li>RS_BRF_01616</li> <li>RS_BRF_01592 (Independent)</li> <li>RS_BRF_01548 (Independent)</li> <li>RS_BRF_01632</li> </ul>
Acceptance Test Specification of Communication Management	added	Initial release, including test suites on <ul style="list-style-type: none"> <li>RS_BRF_01448 (ComM current mode)</li> <li>RS_BRF_01680 (Network Management)</li> <li>RS_BRF_01688 (ComM User Request)</li> <li>RS_BRF_01696 (Partial Networking)</li> <li>CAN Network Management</li> </ul>
Acceptance Test Specification of Communication on CAN bus	added	Initial release, including test suites on <ul style="list-style-type: none"> <li>RS_BRF_01592 – Data Transfer</li> <li>RS_BRF_01648 – Large Data Type</li> <li>RS_BRF_01707 – Can Bus Off handling</li> </ul>
Acceptance Test Specification of Communication on LIN bus	added	Initial release, including test suites on <ul style="list-style-type: none"> <li>RS_BRF_01591 – Data Transfer</li> <li>RS_BRF_01648 – Large Data Type</li> </ul>
Acceptance Test Specification of Communication on FlexRay bus	added	Initial release, including test suites on <ul style="list-style-type: none"> <li>RS_BRF_01592 – Data Transfer</li> <li>RS_BRF_01648 – Large Data Type</li> </ul>
Acceptance Test Specification of Memory Stack	added	First version
Acceptance Test Specification of Diagnostic Services	added	Initial release, including test suites on <ul style="list-style-type: none"> <li>Dem DiagnosticMonitor</li> <li>Dcm DataServices</li> <li>Dcm RoutineServices</li> </ul>
Acceptance Tests Main Requirements	added	Initial release
Feature Specification of the Acceptance Tests	added	Initial release
Requirements on Acceptance Tests	added	Initial release
Overview of Acceptance Tests	added	Initial release
Applicability of test cases to software releases	added	Initial release



## 7 Appendix

### 7.1 Definitions

As far as not explained in this chapter, a collection of AUTOSAR definitions is provided in the Glossary [1].

#### 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. 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 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 documents) of a given Release,
- 2) As depicted in every document, precisely identify a given document (with its unique name and three-digit version ID) as being part of the Release

Item 1) addresses the fact that the set of documents 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 documents 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 document a unique identifier is provided upon which Revision a) a document was either 1<sup>st</sup> time added to/removed from a Release or b) a document 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 document can be interpreted either as a) “document was (1<sup>st</sup> time) added to the Release x.y Rev n” or b) as “document was modified as part of Release x.y Rev m”, with  $m > n$ .

Conversely, the Revision number will only change for documents subject to addition or modification of a valid Release (baseline). After their 1<sup>st</sup> time addition to the Release (baseline), it will not change for documents 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 document'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. R1.0.0)
2. Evolution: Following the initial release with zero, one or several minor releases and/or revisions (e.g. R1.0.1, R1.1.0)
3. Maintenance: Existing content of a major release (such as test suites or test cases, support for AUTOSAR software releases) is maintained within zero, one or several revisions (e.g. R1.0.1).
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 Standard Specifications and Auxiliary Material

Standard Specifications are documents, models or formats which comprise the main result of the AUTOSAR Partnership. It includes the standardized results which have to be fulfilled to achieve AUTOSAR conformance.

In Release 1.0, Standard Specifications are stored at the following URL:

[https://svn.autosar.org/repos/work/26\\_Products/20\\_AT/01\\_Releases/R1.0/01\\_Standard](https://svn.autosar.org/repos/work/26_Products/20_AT/01_Releases/R1.0/01_Standard)

Auxiliary Material is a supporting document, model or format meant to further explain and/or improve the usability of standard specifications of the AUTOSAR partnership. Auxiliary material is recommended to read and/or use for a better understanding or harmonized usage of the AUTOSAR standard but is not mandatory to follow for AUTOSAR conformance.

In Release 1.0, Auxiliary Material is stored at the following URL:

[https://svn.autosar.org/repos/work/26\\_Products/20\\_AT/01\\_Releases/R1.0/02\\_Auxiliary](https://svn.autosar.org/repos/work/26_Products/20_AT/01_Releases/R1.0/02_Auxiliary)

Contents of auxiliary documents remain of auxiliary nature even if they are referenced from standard documents.

### 7.1.5 Release Clusters

Not applicable.