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## References

- [1] Standardization Template  
AUTOSAR\_TPS\_StandardizationTemplate
- [2] Requirements on Standardization Template  
AUTOSAR\_RS\_StandardizationTemplate
- [3] Main Requirements  
AUTOSAR\_RS\_Main

# 1 Introduction

## 1.1 Scope of this document

This document has the purpose to collect requirements on Methodology and Templates which are

- unspecific to single documents

OR

- specific to parts of the AUTOSAR meta-model relevant for almost all AUTOSAR templates

## 1.2 Document Conventions

The representation of requirements in AUTOSAR documents follows the table specified in [TPS\_STDT\_00078], see Standardization Template, chapter Support for Traceability ([1]).

The verbal forms for the expression of obligation specified in [TPS\_STDT\_00053] shall be used to indicate requirements, see Standardization Template, chapter Support for Traceability ([1]).

## 1.3 Guidelines

Existing specifications shall be referenced (in form of a single requirement). Differences to these specifications are specified as additional requirements. All Requirements shall have the following properties:

- **Redundancy**  
Requirements shall not be repeated within one requirement or in other requirements.
- **Clearness**  
All requirements shall allow one possibility of interpretation only. Used technical terms that are not in the glossary must be defined.
- **Atomicity**  
Each Requirement shall only contain one requirement. A Requirement is atomic if it cannot be split up in further requirements.
- **Testability**  
Requirements shall be testable by analysis, review or test.
- **Traceability**  
The source and status of a requirement shall be visible at all times.

## 1.4 Requirements Tracing

The following table references the requirements specified in [2] and links to the fulfillments of these.

Requirement	Description	Satisfied by
[RS_Main_00080]	AUTOSAR shall provide means to describe a component model for application software	<a href="#">[RS_MTG_00001]</a>
[RS_Main_00190]	AUTOSAR shall support interoperability with non-AUTOSAR software on the same ECU	<a href="#">[RS_MTG_00003]</a>



## 2 Requirements

### 2.1 Category: AUTOSAR Main Requirements

This section re-defines requirements from relevant requirements defined in `Main Requirements` [3].

#### 2.1.1 Re-usability

**[RS\_MTG\_00001] AUTOSAR shall ease the re-usability of software and its concepts and implementations** [

<b>Type:</b>	valid
<b>Description:</b>	AUTOSAR shall ease the re-usability of software and its concepts and implementations
<b>Rationale:</b>	See requirement <a href="#">[RS_Main_00080]</a> .
<b>Use Case:</b>	See requirement <a href="#">[RS_Main_00080]</a> .
<b>Dependencies:</b>	—
<b>Supporting Material:</b>	—

]([RS\\_Main\\_00080](#))

#### 2.1.2 Different functional domains

**[RS\_MTG\_00002] AUTOSAR shall provide a software architecture that is applicable across different functional domains** [

<b>Type:</b>	valid
<b>Description:</b>	AUTOSAR shall provide a software architecture that is applicable across different functional domains
<b>Rationale:</b>	—
<b>Use Case:</b>	—
<b>Dependencies:</b>	—
<b>Supporting Material:</b>	—

]

#### 2.1.3 Interoperability with legacy software

**[RS\_MTG\_00003] AUTOSAR shall provide interoperability with legacy software** [

<b>Type:</b>	valid
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<b>Description:</b>	AUTOSAR shall provide interoperability with legacy software
<b>Rationale:</b>	See requirement [RS_Main_00190].
<b>Use Case:</b>	See requirement [RS_Main_00190].
<b>Dependencies:</b>	–
<b>Supporting Material:</b>	–

](RS\_Main\_00190)

## 2.2 Category: Variant Handling

This section defines requirements on AUTOSAR Variant Handling.

### 2.2.1 Supported combinations of System Constant Value

**[RS\_MTG\_00005] Describe supported combinations of System Constant Value of an Software Component Type** [

<b>Type:</b>	valid
<b>Description:</b>	The Generic Structure Template shall support the description of the allowed combinations of System Constant Values of a Software Component Type.
<b>Rationale:</b>	Avoid illegal configuration of a software components, Enable selection of an appropriate Software Component Type.
<b>Use Case:</b>	–
<b>Dependencies:</b>	–
<b>Supporting Material:</b>	[RS_SWCT_03100]

]

**[RS\_MTG\_00006] Describe supported combinations of System Constant Value of an InternalBehavior** [

<b>Type:</b>	valid
<b>Description:</b>	The Generic Structure Template shall support the description of the allowed combinations of System Constant Values of an InternalBehavior.
<b>Rationale:</b>	Avoid illegal configuration of a Software Components Enable selection of an appropriate InternalBehavior.
<b>Use Case:</b>	–
<b>Dependencies:</b>	–
<b>Supporting Material:</b>	[RS_SWCT_03100]

]

**[RS\_MTG\_00007] Describe supported combinations of System Constant Value of an Implementation** [

<b>Type:</b>	valid
<b>Description:</b>	The Generic Structure Template shall support the description of the allowed combinations of System Constant Values of an Implementation.
<b>Rationale:</b>	Avoid illegal configuration of a Software Components Enable selection of an appropriate Implementation.
<b>Use Case:</b>	—
<b>Dependencies:</b>	—
<b>Supporting Material:</b>	[RS_SWCT_03100]

]

## 3 Change History

### 3.1 Change History for AUTOSAR 4.0.4 against 4.0.3

#### 3.1.1 Removed RS Items

N/A

#### 3.1.2 Changed RS Items

N/A

#### 3.1.3 Added RS Items

Number	Heading
[RS_MTG_00001]	AUTOSAR shall ease the re-usability of software and its concepts and implementations (former RS_SWCT_0040)
[RS_MTG_00002]	AUTOSAR shall provide a software architecture that is applicable across different functional domains (former RS_SWCT_0050)
[RS_MTG_00003]	AUTOSAR shall provide interoperability with legacy software (former RS_SWCT_0130)
[RS_MTG_00005]	Describe supported combinations of System Constant Value of an Software Component Type (former RS_SWCT_3145)
[RS_MTG_00006]	Describe supported combinations of System Constant Value of an Internal-Behavior (former RS_SWCT_3146)
[RS_MTG_00007]	Describe supported combinations of System Constant Value of an Implementation (former RS_SWCT_3147)

**Table 3.1: Added Specification Items in 4.0.4**