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## 1 Scope of this document

The goal of this document is to define a common set of basic requirements that apply to all functional clusters of the Adaptive Platform. It adds a common part to the specifications and it needs to be respected by platform vendors.

## 1.1 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]).

## 2 Acronyms and Abbreviations

There are no acronyms and abbreviations relevant within this document that are not included in the [2, AUTOSAR glossary].

### 3 Requirements Tracing

The following tables reference the requirements specified in [3] and links to the fulfillment of these. Please note that if column “Satisfied by” is empty for a specific requirement this means that this requirement is not fulfilled by this document.

Requirement	Description	Satisfied by
[RS_AP_00113]	API specification shall comply with selected coding guidelines.	[SWS_AP_00003]
[RS_AP_00116]	Header file name	[SWS_AP_00001]

## 4 Requirements specification

### 4.1 Non-functional Requirements

#### [SWS\_AP\_00001] Include folder structure [

<b>Type:</b>	Valid
<b>Description:</b>	All ARA public header files shall be accessible within folder ara-api/inc/ara/<func-cluster-short-name>.
<b>Rationale:</b>	Harmonized look and feel.
<b>Dependencies:</b>	–
<b>Use Case:</b>	–
<b>Supporting Material:</b>	<p>Example: Execution management provide ApplicationStateClient class: ara-api/inc/ara/exec/application_state_client.h</p> <pre>namespace ara {   namespace exec {     class ApplicationStateClient {       ...     }   } }</pre> <p>Exception: Proxy and skeleton namespaces are derived from configuration.</p>

] ([RS\\_AP\\_00116](#))

#### [SWS\_AP\_00002] Prevent multiple inclusion of header file [

<b>Type:</b>	valid
<b>Description:</b>	All public header files shall have #define guards to prevent multiple inclusion.
<b>Rationale:</b>	Common coding guideline
<b>Dependencies:</b>	–
<b>Use Case:</b>	–
<b>Supporting Material:</b>	<p>Google C++ Style Guide [<a href="https://google.github.io/styleguide/cppguide.html#The_#define_Guard">https://google.github.io/styleguide/cppguide.html#The_#define_Guard</a> ]</p>

] ()

#### [SWS\_AP\_00003] Coding guidelines [

<b>Type:</b>	draft
<b>Description:</b>	Adaptive Platform implementation shall conform the "Guidelines for the use of the C++14 language in critical and safety-related systems".
<b>Rationale:</b>	Common coding guideline
<b>Dependencies:</b>	–
<b>Use Case:</b>	–
<b>Supporting Material:</b>	"Guidelines for the use of the C++14 language in critical and safety-related systems"

] ([RS\\_AP\\_00113](#))



## 5 References

- [1] Standardization Template  
AUTOSAR\_TPS\_StandardizationTemplate
- [2] Glossary  
AUTOSAR\_TR\_Glossary
- [3] General Requirements specific to Adaptive Platform  
AUTOSAR\_RS\_General