Document Title	Requirements on System Template
Document Owner	AUTOSAR GbR
Document Responsibility	AUTOSAR GbR
Document Identification No	213
Document Classification	Auxiliary

Document Version	2.1.0
Document Status	Final
Part of Release	3.0
Revision	0001

Document Change History

Date	Version	Changed by	Change Description
21.11.2007	2.1.0	AUTOSAR Administration	• Added requirements SYSCT0025 and SYSCT0026 • Set requirement SYSCT0023 to “postponed” • Document meta information extended • Small layout adaptations made
31.01.2007	2.0.0	AUTOSAR Administration	Release as a separate Document. The Specification of System Template V1.0.0 has been split into independent documents for Release 2.1 • Legal disclaimer revised • Release Notes added • “Advice for users” revised • “Revision Information” added
09.05.2005	1.0.0	Initial release	Initial release as part of the Specification of System Template V1.0.0

Page left intentionally blank

Disclaimer

Any use of these specifications requires membership within the AUTOSAR Development Partnership or an agreement with the AUTOSAR Development Partnership. The AUTOSAR Development Partnership will not be liable for any use of these specifications.

Following the completion of the development of the AUTOSAR specifications commercial exploitation licenses will be made available to end users by way of written License Agreement only.

Advice to users of AUTOSAR Specification Documents:

AUTOSAR Specification Documents may contain exemplary items (exemplary reference models, "use cases", and/or references to exemplary technical solutions, devices, processes or software).
Any such exemplary items are contained in the Specification Documents for illustration purposes only, and they themselves are not part of the AUTOSAR Standard. Neither their presence in such Specification Documents, nor any later documentation of AUTOSAR conformance of products actually implementing such exemplary items, imply that intellectual property rights covering such exemplary items are licensed under the same rules as applicable to the AUTOSAR Standard.

Table of Contents

1 Scope of Document

This document collects the requirements on the System Template (SYS-T).
The main goal of the System Template is the definition of a relationship between the pure Software View on the System and a Physical System Architecture with networked ECUs.

The System Template covers the following areas:

- System topology: In the system topology the logical layout of the system is described. This means it is documented which ECU is connected to which cluster or channel.
- Communication properties: The central purpose of a communication system is the exchange of frames with certain properties.
- Mapping: The mapping covers the distribution of software components to ECUs as well as the mapping of data elements that are to be exchanged between software components onto signals and frames.
- Software Architecture: In the software architecture all application software components, their communications capabilities and the connections between them are described.

The requirements collected in this document will be satisfied by the System Template specification [5]. This document implements most of the requirements stated here.

2 Conventions to be used

- In requirements, the following specific semantics shall be used (based on the Internet Engineering Task Force IETF).

  The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as:

  - SHALL: This word means that the definition is an absolute requirement of the specification.
  - SHALL NOT: This phrase means that the definition is an absolute prohibition of the specification.
  - MUST: This word means that the definition is an absolute requirement of the specification due to legal issues.
  - MUST NOT: This phrase means that the definition is an absolute prohibition of the specification due to legal constraints.
  - SHOULD: This word, or the adjective "RECOMMENDED", mean that there may exist valid reasons in particular circumstances to ignore a particular item, but the full implications must be understood and carefully weighed before choosing a different course.
  - SHOULD NOT: This phrase, or the phrase "NOT RECOMMENDED" mean that there may exist valid reasons in particular circumstances when the particular behavior is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behavior described with this label.
  - MAY: This word, or the adjective „OPTIONAL“, means that an item is truly optional. One vendor may choose to include the item because a particular marketplace requires it or because the vendor feels that it enhances the product while another vendor may omit the same item. An implementation, which does not include a particular option, MUST be prepared to interoperate with another implementation, which does include the option, though perhaps with reduced functionality. In the same vein an implementation, which does include a particular option, MUST be prepared to interoperate with another implementation, which does not include the option (except, of course, for the feature the option provides.)

3 Related Documentation

3.1 Input Documents

The following input documents have been used in the development of these requirements:

[1] AUTOSAR Glossary
https:/svn2.autosar.org/repos2/22_Releases
AUTOSAR_Glossary.pdf

[2] AUTOSAR Methodology
https:/svn2.autosar.org/repos2/22_Releases
AUTOSAR_Methodology.pdf

[3] Technical Overview

https:/svn2.autosar.org/repos2/22_Releases
AUTOSAR_TechnicalOverview.pdf

[4] AUTOSAR Main Requirement
https:/svn2.autosar.org/repos2/22_Releases
AUTOSAR_MainRequirements.pdf

4 Requirements

This chapter describes all requirements driving the work of the System Template group. Most of them originate from the Main Requirements document from the PL Team (“MainX” requirements [4]). Also, some of them have strong links with the safety requirements defined in (“AR-DS-X)” requirements. These links are given in the “supporting material” field.

4.1 Functional Requirements

4.1.1 [SYSCT0001] Mixed Systems (AUTOSAR/NON-AUTOSAR)

Initiator:	WP2.1.1.3
Date:	30.03.2004
Short Description:	Mixed Systems (AUTOSAR/NON-AUTOSAR)
Type:	new
Importance:	high
Description:	System constraints, which arise through usage of mixed systems, must be treated by System Template.
Rationale:	The transition between non-AUTOSAR systems to full-AUTOSAR systems can only be achieved gradually. Furthermore, interoperability with legacy solutions must be ensured. Thus, it must be possible to have AUTOSAR and non-AUTOSAR ECUs together on the same system (“mixed” systems).
Use Case:	Gradual AUTOSAR introduction into an existing architecture.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main190**] AUTOSAR shall provide interoperability with legacy software. [**Main210**] AUTOSAR shall provide means to integrate AUTOSAR ECUs in non-AUTOSAR networks.

4.1.2 [SYSCT0002] Basic Software Resources and RTE Resources

Initiator:	PL Team (Joint Meeting Open Questions)
Date:	30.03.2004
Short Description:	Basic Software Resources and RTE Resources
Type:	new
Importance:	high
Description:	The System Template has to cover resource requests of the basic SW and the RTE.
Rationale:	Resources of an ECU are, by their own definition, limited (RAM, ROM, CPU time, etc.). Such limitations act as constraints during the mapping process.
Use Case:	Taking into account memory limitations when allocating AUTOSAR services and features on a small ECU.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main90**] Tool-chains, which are developed for or adopted to AUTOSAR, must be compatible with the AUTOSAR-process. [**Main150**] AUTOSAR shall provide mechanisms, methods, processes and tools to encapsulate application software from the infrastructure.

4.1.3 [SYSCT0003] Iterative Development

Initiator:	WP2.1.1.3
Date:	30.03.2004
Short Description:	Iterative Development
Type:	new
Importance:	high
Description:	The System Template has to support an iterative system development.
Rationale:	During the development of an AUTOSAR system, solutions found in former steps of the system design process are themselves system constraints for the next system generation steps.
Use Case:	If new functionalities are added to a vehicle project in a late development phase, the current mapping become itself a constraint for the mapping of the new SW components associated with such new functionalities.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main90**] Tool-chains, which are developed for or adopted to AUTOSAR, must be compatible with the AUTOSAR-process. [**Main300**] AUTOSAR supports work-share in large inter-company development groups.

4.1.4 [SYSCT0004] Variant handling

Initiator:	WP2.1.1.3
Date:	22.10.2004
Short Description:	Variant handling
Type:	new
Importance:	high
Description:	The System Template has to support variant handling.
Rationale:	The use of different combinations of SW-Components and ECUs, in order to reach different specific characteristics/behaviors of the overall system (the vehicle), is meant as “variant”. Such variants can result e.g. from different motors, different bodies, optional equipments, country specific equipments, etc.
Use Case:	Right-hand and left-hand drive can lead to different system constraints during the development phase.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main360**] Management of vehicle diversity is supported by AUTOSAR.

4.1.5 [SYSCT0005] Timing requirements

Initiator:	WP1.1.3
Date:	22.10.2004
Short Description:	Timing requirements
Type:	new
Importance:	high
Description:	The System Template has to describe timing requirements. Such timing requirements can be applied on frames, on signal paths, on single SW-C or on SW-C execution chains (including more than one ECU).
Rationale:	Response times are one of the main topics during the development of real-time system. The AUTOSAR mapping process must ensure that such timing requirements (e.g. maximum elapsed time in a chain of SW-Cs) can be fulfilled.

Use Case:	To verify requirements on response times from the very beginning of the development process.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main40**] AUTOSAR must be compatible with concepts, mechanisms, tools, and processes to handle safety-related systems. [**AR-DS-73**] Specification of chains of components. [**AR-DS-74**] Timing requirements involving more than one component (sensors, ECUs, actuators).

4.1.6 [SYSCT0006] Compatibility between the AUTOSAR Templates

Initiator:	WPII-1.2
Date:	29.07.2007
Short Description:	Compatibility between the AUTOSAR Templates
Type:	change
Importance:	high
Description:	The compatibility between the AUTOSAR Templates must be guaranteed. In this context, compatibility means that each AUTOSAR template can have references to elements of another AUTOSAR template.
Rationale:	Ensuring coherence and interoperability between AUTOSAR templates.
Use Case:	Development of an in-vehicle electronic architecture (software modelling, hardware modelling and mapping constraint modelling) using the same tool chain.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main90**] Tool-chains, which are developed for or adopted to AUTOSAR, must be compatible with the AUTOSAR-process. [**Main300**] AUTOSAR supports work-share in large inter-company development groups.

4.1.7 [SYSCT0007] Mapping of Software Components to ECUs

Initiator:	WP2.1.1.3
Date:	30.03.2004
Short Description:	Mapping of Software Components to ECUs
Type:	new
Importance:	high
Description:	The System Template has to describe the mapping of software components to ECUs. However, it doesn't describe the scheduling aspects nor the mapping of software components to individual microcontrollers residing in one ECU.
Rationale:	
Use Case:	For safety reasons (or simply due to the experience) some specific Software Components can run only on some specific ECUs. Such "pre-mapping" is a constraint for the real mapping process.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main40**] AUTOSAR must be compatible with concepts, mechanisms, tools, and processes to handle safety-related systems. [**Main50**] AUTOSAR shall support inter- and intra-ECU-communication mechanisms with high reliability [**Main200**] AUTOSAR shall imply only small memory and performance impacts when used in today's micro controllers

4.1.8 [SYSCT0008] SWC Cluster

Initiator:	WP2.1.1.3
Date:	30.03.2004
Short Description:	SWC Cluster
Type:	new
Importance:	high
Description:	The System Constraint Description has to cover the clustering of SW Components. SW Component Clustering means that two SW Components cannot be divided and must be mapped to the same ECU.
Rationale:	Due to performance requirements, to safe communication requirements or simply to experience, some communication paths must be prevented to be mapped onto an external bus. Involved SW Components shall then be mapped together onto the same ECU.
Use Case:	Safe communication, which may not be carried out over a communication bus, or very strict timing requirements.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main40**] AUTOSAR must be compatible with concepts, mechanisms, tools, and processes to handle safety-related systems. [**Main200**] AUTOSAR shall imply only small memory and performance impacts when used in today's micro controllers. [**AR-DS-78**] Mapping rules of SW-Cs to same ECU.

4.1.9 [SYSCT0009] SWC Separation

Initiator:	WP2.1.1.3
Date:	30.03.2004
Short Description:	SWC Separation
Type:	new
Importance:	high
Description:	The System Constraint Description has to cover the separation of SW Components. SW Component Separation means that two SW Components cannot be on the same ECU.
Rationale:	To enhance the independence of redundant SW-C.
Use Case:	Two redundant Software Components, implementing safety critical functions, will not be mapped together on the same ECU because of safety requirements (of course, redundancy does not always imply SWC separation).
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main40**] AUTOSAR must be compatible with concepts, mechanisms, tools, and processes to handle safety-related systems. [**AR-DS-44**] Exclusive mapping of SW-C to ECUs.

4.1.10 [SYSCT0010] Exclusive Mapping of SW-C

Initiator:	WP1.1.3
Date:	22.10.2004
Short Description:	Exclusive Mapping of SW-C
Type:	new
Importance:	high
Description:	The System Constraint Description has to cover the exclusion of SW-Cs from one or more ECUs. "Exclusion" means that the SW-C cannot be

	mapped to the ECUs it is excluded from.
Rationale:	During the mapping process it can be useful to express that a specific SW-C cannot be mapped to one or more ECUs, based on ECU properties.
Use Case:	Exclusion of safety critical functions from crash exposed areas.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main40**] AUTOSAR must be compatible with concepts, mechanisms, tools, and processes to handle safety-related systems. [**AR-DS-79**] Exclusive Mapping of SW-Cs.

4.1.11 [SYSCT0011] Dedicated Mapping of SW-C

Initiator:	WP1.1.3
Date:	22.10.2004
Short Description:	Dedicated Mapping of SW-C
Type:	new
Importance:	high
Description:	The System Constraint Description has to describe dedicated mapping of SW-Cs to one or more ECUs. “Dedicated mapping” means that the SW-C can only be mapped to the ECUs it is dedicated to.
Rationale:	During the mapping process it can be useful to express that a specific SW-C can be only mapped to some ECUs, based on ECU properties.
Use Case:	SW-Cs requiring an ECU that can guarantee full functionality for a specified time period after power down.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main40**] AUTOSAR must be compatible with concepts, mechanisms, tools, and processes to handle safety-related systems. [**AR-DS-80**] Dedicated Mapping of SW-Cs.

4.1.12 [SYSCT0013] Topology

Initiator:	WP2.1.1.3
Date:	30.03.2004
Short Description:	Topology
Type:	new
Importance:	high
Description:	The System Template has to describe the topology of an EE System.
Rationale:	The available communication paths limit the possible distributions of SW Components to some ECUs.
Use Case:	Mapping of SW Components being tightly linked from a functional point of view: the topology must then be known in order to avoid too long data paths.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main230**] AUTOSAR shall support networks of networks including sub networks.

4.1.13 [SYSCT0014] Data Segmenting

Initiator:	WP2.1.1.3
Date:	30.03.2004
Short Description:	Data Segmenting

Type:	new
Importance:	medium
Description:	The System Template must provide information, which can be used for the segmenting of (application) data to more than 1 frame.
Rationale:	Data length limitations of the underlying bus technology.
Use Case:	Transmission of diagnostic data, often longer than 8 bytes, by means of 8 byte CAN frames.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main140**] AUTOSAR shall provide an independency of application software from in-vehicle communication technologies.

4.1.14 [SYSCT0015] Bus bandwidth

Initiator:	WP2.1.1.3
Date:	22.10.2004
Short Description:	Bus bandwidth
Type:	new
Importance:	high
Description:	The System Template shall support bandwidth calculation as a constraint for the definition of the Communication Matrix.
Rationale:	Bandwidth is a limited resource, acting as a constraint during the definition of the Communication Matrix.
Use Case:	When defining the Communication Matrix for mixed systems (AUTOSAR and non-AUTOSAR ECUs), only one part of the Communication Matrix is freely configurable using the AUTOSAR process. That means that the available bandwidth for the AUTOSAR system generator is limited by the non-AUTOSAR part of the Communication Matrix.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main90**] Tool-chains, which are developed for or adapted to AUTOSAR, must be compatible with the AUTOSAR-process. [**Main210**] AUTOSAR shall provide means to integrate AUTOSAR ECU's in non-AUTOSAR networks. [**AR-DS-71**] Checking bus bandwidth used.

4.1.15 [SYSCT0016] Dedicated physical connections

Initiator:	WP2.1.1.3
Date:	29.10.2004
Short Description:	Dedicated physical connections
Type:	new
Importance:	medium
Description:	The System Constraint Description shall be able to describe that a signal has to be sent over a dedicated wire, which is only used by two SW-Components (sender and receiver).
Rationale:	This technique is commonly used in current safety concepts.
Use Case:	Communication with the airbag module.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main20**] AUTOSAR shall provide mechanisms to support redundancy paths. [**Main40**] AUTOSAR must be compatible with concepts, mechanisms, tools, and processes to handle safety-related systems.

	[**AR-DS-72**] Describing signal paths.

4.1.16 [SYSCT0017] Mapping of signals to the same physical line

Initiator:	WP2.1.1.3
Date:	29.10.2004
Short Description:	Mapping of signals to the same physical line
Type:	new
Importance:	medium
Description:	The System Constraint Description shall be able to describe that a group of signals has to be sent via the same physical line.
Rationale:	--
Use Case:	--
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main20**] AUTOSAR shall provide mechanisms to support redundancy paths.

4.1.17 [SYSCT0018] Mapping of signals to different physical lines

Initiator:	WP1.1.3
Date:	22.10.2004
Short Description:	Mapping of signals to different physical lines
Type:	new
Importance:	medium
Description:	The System Constraint Description shall be able to describe, if needed, that signals between ECUs are sent via different physical lines.
Rationale:	To support hardware and information redundancy (as a mean to support fault detection and fault handling).
Use Case:	A mean to guarantee the transmission of very safety critical data, is to force the sending of redundant copies onto different physical lines.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main20**] AUTOSAR shall provide mechanisms to support redundancy paths. [**Main40**] AUTOSAR must be compatible with concepts, mechanisms, tools, and processes to handle safety-related systems. [**Main50**] AUTOSAR shall support inter- and intra-ECU-communication mechanisms with high reliability. [**AR-DS-46**] Mapping of signals to different lines.

4.1.18 [SYSCT0019] Mapping of signals to a specific physical line

Initiator:	WP1.1.3
Date:	29.10.2004
Short Description:	Mapping of signals to a specific physical line
Type:	new
Importance:	medium
Description:	The System Constraint Description shall be able to describe that signals have to be mapped to a specific physical line.
Rationale:	Some signals have to be mapped to specific physical lines due to e.g. special performance and/or safety needs.

Use Case:	Powertrain signals have to be mapped to a high-speed bus, due to their timing requirements.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main20**] AUTOSAR shall provide mechanisms to support redundancy paths.

4.1.19 [SYSCT0020] Exclusion of signals from a specific physical line

Initiator:	WP1.1.3
Date:	29.10.2004
Short Description:	Exclusion of signals from a specific physical line
Type:	new
Importance:	medium
Description:	The System Constraint Description shall be able to describe that signals have not to be mapped to a specific physical line.
Rationale:	Some physical lines can result unsuitable (too slow, unsafe communication protocol, etc.) for the transmission of some specific signals.
Use Case:	Most of power train signals cannot be mapped to a low speed CAN bus, due to their timing requirements.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main20**] AUTOSAR shall provide mechanisms to support redundancy paths.

4.1.20 [SYSCT0021] ECU Communication via CAN (Controller Area Network)

Initiator:	WP2.1.1.3
Date:	23.02.2005
Short Description:	ECU Communication via CAN
Type:	Change (SYSCT0012)
Importance:	high
Description:	The System Template has to cover the system communication via CAN Bus.
Rationale:	CAN is widely used in the automotive systems.
Use Case:	Development of a complete, multi-networked, in-vehicle electronic architecture.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main60**] AUTOSAR shall provide open and standardized software interfaces for intra-ECU and inter-ECU communication. [**Main140**] AUTOSAR shall provide an independency of application software from in-vehicle communication technologies.

4.1.21 [SYSCT0022] ECU Communication via LIN (Local Interconnect Network)

Initiator:	WP2.1.1.3
Date:	30.03.2004
Short Description:	ECU Communication via LIN
Type:	Change (SYSCT0012)
Importance:	high
Description:	The System Template has to cover the system communication via LIN.
Rationale:	LIN is widely used in the automotive systems.

Use Case:	Development of a complete, multi-networked, in-vehicle electronic architecture.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main60**] AUTOSAR shall provide open and standardized software interfaces for intra-ECU and inter-ECU communication. [**Main140**] AUTOSAR shall provide an independency of application software from in-vehicle communication technologies.

4.1.22 [SYSCT0023] ECU Communication via MOST (Media Oriented Systems Transport)

Initiator:	WP2.1.1.3
Date:	30.03.2004
Short Description:	ECU Communication via MOST
Type:	postponed
Importance:	high
Description:	The System Template has to cover the system communication via MOST.
Rationale:	MOST is going to become a standard communication protocol in the automotive industry.
Use Case:	Development of a complete, multi-networked, in-vehicle electronic architecture.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main60**] AUTOSAR shall provide open and standardized software interfaces for intra-ECU and inter-ECU communication. [**Main140**] AUTOSAR shall provide an independency of application software from in-vehicle communication technologies.

4.1.23 [SYSCT0024] ECU Communication via FlexRay

Initiator:	WP2.1.1.3
Date:	30.03.2004
Short Description:	ECU Communication via FlexRay
Type:	Change (SYSCT0012)
Importance:	high
Description:	The System Template has to cover the system communication via FlexRay.
Rationale:	FlexRay is going to become a standard communication protocol in the automotive industry.
Use Case:	Development of a complete, multi-networked, in-vehicle electronic architecture.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	[**Main60**] AUTOSAR shall provide open and standardized software interfaces for intra-ECU and inter-ECU communication. [**Main140**] AUTOSAR shall provide an independency of application software from in-vehicle communication technologies.

4.1.24 [SYSCT0025] Derivation of ECU Configuration Parameters from the System Template

Initiator:	WPII-1.2
Date:	29.06.2007
Short Description:	Derivation of ECU Configuration Parameters from the System Template
Type:	new
Importance:	high
Description:	The System Template shall enable the configuration of the Com Stack of the ECU. It handles those parameters that are necessary to describe the inter-ECU communication. Configuration parameters local to an ECU are not in the scope of the System Template.
Rationale:	All ECUs connected in one communication cluster needs to be configured consistently.
Use Case:	Generate Base ECU Configuration from ECU Extract
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	

4.1.25 [SYSCT0026] Fibex compatibility

Initiator:	WPII-1.2
Date:	29.06.2007
Short Description:	Fibex compatibility
Type:	new
Importance:	high
Description:	Whenever there is a considerable overlap between the System Template and the ASAM FIBEX Standard, the System Template shall adopt the structures of the ASAM FIBEX Standard.
Rationale:	The System Template will benefit from Fibex as an established proven standard.
Use Case:	Facilitate the adoption of the System Template into existing tools which deal with the Fibex Standard.
Dependencies:	None identified.
Conflicts:	None identified.
Supporting Material:	

5 References

[1] AUTOSAR Glossary,
https:/svn2.autosar.org/repos2/22_Releases
AUTOSAR_Glossary.pdf

[2] Methodology,
https:/svn2.autosar.org/repos2/22_Releases
AUTOSAR_Methodology.pdf

[3] Technical Overview,
https:/svn2.autosar.org/repos2/22_Releases
AUTOSAR_TechnicalOverview.pdf

[4] AUTOSAR Main Requirements,
https:/svn2.autosar.org/repos2/22_Releases
AUTOSAR_MainRequirements.pdf

[5] AUTOSAR System Template,
https:/svn2.autosar.org/repos2/22_Releases
AUTOSAR_SystemTemplate.pdf