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Release Notes

Errata and known deficiencies

All modifications planned in the scope of Release 2.1 for the incorporation into this document are completed. The document, however, has not yet undergone the necessary finalization.

Disclaimer

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1 Scope of this Document, Goals

1.1 Purpose of the document

The goal of this document is to define general requirements on the maintenance of the AUTOSAR standard to be applied after it has been released for commercial exploitation. The document will be the main input to Change Management Process Definition and Release Process Definition.

1.2 Scope of maintenance

An AUTOSAR Product will after first public release be subject to maintenance which is the longest phase of the standard lifecycle. A maintenance process that enables the standard to live but keeps it together into one piece is a crucial condition to be met for the standard to become successful. It is anticipated that the lifetime of the AUTOSAR standard exceeds 20 years.

1.3 Definitions

AUTOSAR Products in this document are

- Requirement specifications
- Test specifications
- Design specifications
- Process definitions
- and other documents

Change management is the management of change requests and tracking of changes on individual AUTOSAR Products.

Release management is the management of complete releases, e.g. the release of a baseline indicating specific versions of all included AUTOSAR products.

Baseline is in this document considered to be the collection of AUTOSAR products in a release. The baseline is used as reference for future change proposals.

Configuration management is

- version tracking (i.e. administration of version numbering of all AUTOSAR products to be maintained including change history tracking)
- packaging (i.e. composition of different AUTOSAR products in specific versions, normally subsets of the complete standard)
- the management of relationship between products, e.g. which versions of specific products fit together with which versions of other products.

Configuration management issues will occur within both change management and release management.

Lean management/Lean Process
Lean Management means the increase of efficiency, to serve the customer services which the customer really wants with the right quality for the best price.

This is characterized by a lean organisation (only functions and structures which increase the value added) and flat hierarchies (no overheads). It means that a company achieves a specified result with a minimum of staff, time and investment or with a given input a maximum result respectively.

Source: Wikipedia / Economics

1.4 Abbreviations

RfC	Request for Change
CCB	Change Control Board
OEM	Original Equipment Manufacturer (in this document Car Manufacturer)
CTS	Conformance Test Suite
CTA	Conformance Test Agency
ID	Identification
SW	Software
RTE	Runtime Environment
DB	Database

2 Related Documentation

2.1 AUTOSAR Documents

[1] Definition of Change Management Process
https://svn.autosar.org/repos/10Releases/
AUTOSAR_DS_ChangeManagementProcess.pdf

[2] Definition of Release Management Process
https://svn.autosar.org/repos/10Releases/
AUTOSAR_DS_ReleaseManagementProcess.pdf

2.2 Deliverables of other AUTOSAR work packages

No defined deliverables from other AUTOSAR work packages.

2.3 Related standards, norms and regulations

No defined related standards and norms.

3 How to read this document

This Requirements Specification contains general requirements that are valid for the maintenance of the AUTOSAR standard.

Each requirement has its unique identifier starting with the prefix “SMR” (for “Standard Maintenance Requirements”). For any review-annotations, remarks or questions please refer to this unique ID rather than chapter or page number!

The order in which the requirements appear in this document does not imply any relative difference in importance, the importance of a requirement is explicitly written in its definition.

Requirements are grouped under the following headlines:
General Requirements
Requirements on change management
Requirements on release management

4 Requirements

4.1 General requirements

4.1.1 Maintenance is assumed when the standard is released for the purpose of commercial exploitation [SMR0010]

Initiator:	WP20
Date:	2005-02-18
Short Description:	The maintenance processes shall be designed with the assumption that the standard is fully developed and released for the purpose of commercial exploitation.
Type:	new
Importance:	high
Description:	The maintenance processes shall mainly cover the time after the standard is released for the purpose of commercial exploitation, not emphasizing the development period. This is to be interpreted on an item by item basis.
Rationale:	The requirements on maintenance (e.g. release and change management) are different between the situation when the standard is under development, without end users and when the standard is released and ready for implementation in mass production. The assumption for the maintenance processes is that they cover all products that are in released status. Applying maintenance processes during the development phase for each product would significantly impact the development cost and delays without any actual justification.
Use Case:	A product supplier points out during development a deficiency in the standard (e.g. a fault, a solution in the standard which contradicts a thought of solution, a missing function or something else) and initiates a change request.
Dependencies:	--
Note:	The maintenance processes shall start before the end of the development phase in order to get ready upon release. This may lead in extra effort during this transition period.
Supporting Material:	--

4.1.2 Establishment of a maintenance function [SMR0260]

Initiator:	WP20 meeting 7 18-19 May 2005
Date:	2005-05-25
Short Description:	A functional body shall be established that supports and owns the maintenance processes.
Type:	new
Importance:	high
Description:	In order to safeguard that the maintenance processes are executed over time a function has to be established that owns the processes and implements them. This functional body shall be a part of the AUTOSAR organisation
Rationale:	In order to get continuity in the maintenance processes in terms of competence and experience, a stable organisation is required to guarantee handling of change requests and administration of changes and releases.
Use Case:	The functional body is responsible to ensure: •Administration of the RfC's system •Implementation of the communication policy for release information •Provision and maintenance of tools and DB's
Dependencies:	WP20 Task 3
Note:	The provision of the required resources implies some costs.
Supporting Material:	--

4.1.3 The maintenance processes shall be lean [SMR0020]

Initiator:	WP20
Date:	2005-02-18
Short Description:	The maintenance processes shall be designed so that all process steps add value (effectiveness) and secure high responsiveness.
Type:	new
Importance:	high
Description:	The maintenance processes shall be designed with the ambition to avoid unnecessary administration and effort, thus ensuring quick and efficient feedback to the users of the standard.
Rationale:	It is of high importance for the success of AUTOSAR that the maintenance is kept lean, with fast response time and distinct and relevant answers to change requests. When an issue has been identified by a change request initiator, it has to be dealt within time to avoid damage or unnecessary rework among the users of AUTOSAR. A high number of process steps do also increase the risk of having the process diluted and with a deteriorated quality as the result.
Use Case:	A product supplier pointing out a need for change in the standard shall be able to post and trace a change request very easily, so that its required effort is minimized.
Dependencies:	--
Note:	Some changes may require heavier process due, for example, to a huge impact on many products or on standard foundations.
Supporting Material:	--

4.1.4 Maintenance process shall be tailored to support standard consistency and quality [SMR0040]

Initiator:	WP20
Date:	2005-02-02
Short Description:	The change management and release management processes shall be designed to keep the standard as consistent as possible over time and the level of quality as high as possible.
Type:	new
Importance:	high
Description:	The change management and release management processes shall have conservative mechanisms that prevent the standard from divergence as a result of individual member's wishes for change.
Rationale:	Since many different parties will be working with and on the standard, some means of keeping it consistent are needed, so as to guarantee a high level of quality for the standard.
Use Case:	There may be requests leading to conflicting changes of the standard, which the process needs to mitigate in order to avoid the standard to become inconsistent.
Dependencies:	--
Note:	May discourage innovation.
Supporting Material:	--

4.1.5 A list of which AUTOSAR products are subject to maintenance shall be compiled [SMR0050]

Initiator:	WP20
Date:	2005-02-18
Short Description:	A list of AUTOSAR products which are subject to maintenance shall be compiled.
Type:	new
Importance:	high
Description:	AUTOSAR consists of a large amount of products from which a list shall be compiled, defining which products AUTOSAR is responsible to maintain including test specifications and process specifications
Rationale:	Within the work of AUTOSAR a lot of results will be produced. Many of these will build a basis which defines the standard. Whenever the standard changes it will be reflected in a change in one or many of these products. It is thus important to define which of all the deliverables from AUTOSAR, the organisation commits to maintain during the lifetime of the standard. (The compilation of the first list is best managed by the AUTOSAR PL Team, in maintenance phase the list is owned by the follow up organisation and under change management).
Use Case:	A working group within AUTOSAR exists during a defined period of time in which it holds a number of meetings, resulting in meeting minutes, project plans, report cards, presentations, specifications, mail conversations. Many of these results do only serve the purpose to document decisions, support memory and to reflect the history behind choices made in the group. These will not be changed during the lifetime of the standard. Other results from the working group carry parts of the definition of the standard and those have to be kept updated reflecting the latest status of the standard. The list will contain all of those items and will serve as a mean to ensure completeness of the maintenance.
Dependencies:	[SMR0150]
Note:	--
Supporting Material:	Chapter 1.3 Definitions

4.1.6 A general change policy shall be defined [SMR0230]

Initiator:	WP20
Date:	2005-04-05
Short Description:	AUTOSAR shall define a general policy for the change management.
Type:	new
Importance:	medium
Description:	AUTOSAR shall define a general policy for the change management. This is required to ensure a consistent process over the different specifications and over time.
Rationale:	Beyond the particular processes for the changes management, it is necessary to setup a common basis, general policy, in order to ensure that all changes will be processed the same way whoever person that will be in charge of the process.
Use Case:	Initiated change request can be considered feasible from one person's perspective while it may be utterly impossible from another or there can be a conflict of interests. In order to give the change management support in being consistent in its evaluation a general policy can give directions.
Dependencies:	[SMR0200]
Note:	--
Supporting Material:	--

4.1.7 The maintenance processes shall be supported by a tailored tool environment [SMR0190]

Initiator:	WP20
Date:	2005-02-18
Short Description:	The maintenance process shall be supported by a tailored tool environment.
Type:	new
Importance:	medium
Description:	A defined set of tools supporting configuration management, version management, change request handling and release management shall be used.
Rationale:	In order for to keep consistency among the many elements subject to change management and their relations to different change requests, there is a need for a computerized tool. To ensure the reproducibility of the changes of the elements of a defined release a configuration management tool is necessary. This tool also helps to set the baseline for a release.
Use Case:	• An initiator for a change request uses a web enabled front end tool to initiate a request. The requests status can then be monitored through the same interface. • Automated escalation and status reporting. • A new AUTOSAR release is to be published. Therefore the AUTOSAR documents have to be baselined. The configuration management tool helps to set the baseline. • The changes between two versions of a document should be tracked. The identification of the differences can be done via the configuration management tool.
Dependencies:	--
Note:	--
Supporting Material:	--

4.1.8 Clustering of AUTOSAR products shall be done and dependencies between clusters and products shall be defined [SMR0150]

Initiator:	WP20
Date:	2005-02-18
Short Description:	The AUTOSAR products shall be organized in clusters.
Type:	new
Importance:	high
Description:	The AUTOSAR products shall be organized in clusters and the dependencies between clusters and between products within clusters shall be defined.
Rationale:	In order to evaluate the impact of a change request on a specific product whether it is major or minor the products should be organized in clusters with other products having similar function in a way that the dependencies between clusters are minimized. If the dependencies between products to other products are kept within the cluster the effect of the change on that particular product is isolated to its cluster and the change might have minor impact. If on the other hand the product has dependencies to products in other clusters the analysis of the change will take longer time and the impact of the change might be major. If each dependency is well described it can even be possible to identify which of the dependencies a proposed change affects and how.
Use Case:	A specific change to a product is required. The overall effort for a new release would be significantly reduced if the impact of the change is limited to a cluster only.
Dependencies:	[SMR0050]
Note:	The clustering might not be consistent over time. This will add complexity which is contradictory of the requirement.
Supporting Material:	--

4.1.9 A communication policy shall be defined [SMR0130]

Initiator:	WP20
Date:	2005-02-18
Short Description:	A communication policy shall be defined. General reporting of changes, releases and issues to the market.
Type:	new
Importance:	medium
Description:	In order to make sure that all users of AUTOSAR have access to all possible information regarding planning of changes and releases of the standard there has to be a defined communication policy available. The information shall cover pending change requests, dates for change windows and planned dates for coming standard releases. Release planning, new features, new technologies, orientation, political decision, major bugs, patches etc.
Rationale:	Any possible issue with the standard generating a change request is a potential issue for all users of the standard why it is necessary for all users to have access to raised issues. This will minimize duplicate work generated from same workaround being developed twice, same idea generating many change requests etc.
Use Case:	All AUTOSAR users who are developing products according to the AUTOSAR standard are able to take AUTOSAR release planning into consideration when planning their own development cycle. OEMs can rely on AUTOSAR release planning at an early stage in their programs.
Dependencies:	--
Note:	--
Supporting Material:	--

4.1.10 The processes for Change management and Release management shall be decoupled [SMR0200]

Initiator:	WP20
Date:	2005-02-18
Short Description:	The processes of Change management and Release management shall be defined as separate entities with a clear interface between them.
Type:	new
Importance:	medium
Description:	The processes of Change management and Release management shall be defined so that there is no automatic relationship between them (a change does not lead to a release, a release being issued only when necessary or judicious). The definition shall include configuration management.
Rationale:	There is a need to be able to differentiate between the different processes especially when the project is beyond the first public release. Whereas change management is a continuous operational process, release management is strategic and occurs at a longer time-interval. There shall be no automatism between Change management and Release management, that is a change does not directly trigger a new release.
Use Case:	Change management is by nature event triggered and shall favor the responsiveness. Release management is more a political or strategic decision than a technical decision. A new release will be indirectly triggered (that is in a controlled way) by either or a combination of: - Time (preferably at regular intervals) - Severity of changes - Number of changes
Dependencies:	[SMR0250], [SMR0230]
Note:	--
Supporting Material:	--

4.2 Requirements on the change management process

4.2.1 A guideline on how to process major changes and minor changes shall be defined [SMR0030]

Initiator:	WP20
Date:	2005-02-18
Short Description:	There shall be a guideline showing how major and minor changes are to be processed respectively.
Type:	new
Importance:	medium
Description:	A guideline, showing which decision bodies are to be involved regarding major and minor changes, shall be defined.
Rationale:	In order for the CCB to work efficiently, there has to be clear guidelines on how to deal with different types of changes. In combination with a guideline which defines the difference between major and minor changes there shall be a guideline showing how to process a change request depending on the category of the change.
Use Case:	According to the minor or major classification of a change, the decision authority shall take any action in order to process the change with appropriate resources and efforts.
Dependencies:	[SMR0070]
Note:	--
Supporting Material:	--

4.2.2 Categorization of changes [SMR0070]

Initiator:	WP20
Date:	2005-02-02
Short Description:	There is need for a definition to categorize changes in minor and major. Classification in Category, Priority, Severity
Type:	new
Importance:	medium
Description:	A change request can be regarded to have major or minor impact which can be measured in terms of: - Number of other products which are affected - Number of users which are affected - Feasibility of the proposed change - Conformance class test (impact on CTS). - Backwards compatibility This could be described with a matrix.
Rationale:	In order for CCB to be able to prioritize between incoming change-requests, there is a need for a classification method which filters out change requests which can be handled by the CCB itself and those change requests that have to be brought to a different body for a decision among the core partners. **Classifications:** Category: - Correction („bug fixing“, especially typing errors, grammatical and semantic inaccuracies) - Modification (of an existing product) - Extension (add-on of a complete new feature) Priority: - P1 (required immediately, patch necessary) - P2 (required for the next release) - P3 (not required for the next release) Severity (as defined within Bugzilla): - Critical - Significant - Uncritical - Optimizing
Use Case:	There is an RfC incoming from an initiator. In order to ensure an appropriate processing and involvement of the right bodies all incoming RfCs have to be classified.
Dependencies:	[SMR0180], [SMR0030]
Note:	--
Supporting Material:	--

4.2.3 Formalization of change requests [SMR0080]

Initiator:	WP20
Date:	2005-02-02
Short Description:	Formalization of change requests
Type:	new
Importance:	high
Description:	The change request itself has to be formalized in terms of mandatory inputs in order to be processed correctly.
Rationale:	In order to have an efficient process where lack of vital information does not hinder further processing of a change request a form has to be developed where necessary inputs are defined, such as description of the change, assessed impact etc. The following information is considered to be useful. **Identification**: - Initiator, Product, Version - Page and line of the document, other affected AUTOSAR products (These corresponding ID's should be put in the document) - A unique ID is required to identify the RfC (provided by the tool) **Description** of the defect or of the requested change **Motivation** of the Request for Change, e.g. benefit or damage if not implemented **Impact Analysis**, e.g. known and potential **dependencies** **Suggested Solution** if possible Information needed for unique **classification** of each RfC according to [SMR0070]
Use Case:	Initiator enters an RfC with information missing. This would lead to additional clarification effort.
Dependencies:	[SMR0070]
Note:	--
Supporting Material:	--

4.2.4 Deadlines for change requests to be considered for the next release shall be defined [SMR0090]

Initiator:	WP20
Date:	2005-02-18
Short Description:	Change requests on product level raised before the deadlines must be taken into account for the new release.
Type:	new
Importance:	medium
Description:	Deadlines for change requests on product level which should be considered for upcoming releases shall be defined. Change requests that are raised before the deadlines are reached must be taken into account.
Rationale:	In order to meet all OEM and Tier1 program timing requirements there has to be reasonably frequent opportunities to add/modify or correct products of the standard. On the other hand there is a need for CCB to collect change requests at a certain periodicity in order to plan changes. A differentiation between minor or major changes should be required. In case of approval the changes should be part of the next release unless for changes of such impact that implementation in the next release will not be feasible without unduly risk. In order to meet OEM's and Tier 1's requirements regarding reasonably frequent opportunities to add/modify/correct products, patches depending on urgency and severity should be offered. Release and patch planning have to consider effort estimation, impacts/dependencies and number of RfC's as well.
Use Case:	AUTOSAR is interested in a stable standard. Nevertheless the OEMs and the Tier 1's interest is to develop new features etc. for their programs. These two interests are in conflict (features, timeline and versions).
Dependencies:	[SMR 0140]
Note:	AUTOSAR is interested in a stable standard. Nevertheless the OEMs interest is to develop new features etc. for their programs. These two interests are in conflict (features, timeline and versions). Also the SW suppliers depend on Release Management.
Supporting Material:	--

4.2.5 Need for experts over time [SMR0100]

Initiator:	WP20
Date:	2005-02-02
Short Description:	Each AUTOSAR product needs one expert. New roles have to be defined, as well as new tasks for the follow up organization. Estimation of manpower for the roles and tasks is needed.
Type:	new
Importance:	high
Description:	Each product developed within AUTOSAR needs to have an expert who is responsible to assess change requests on the product and who can give a judgment to the CCB on the impact of the change requests. The sum of these product experts must cover all technology areas involved in AUTOSAR. There is also need for experts covering AUTOSAR as a whole. All products must have >= 1 expert. All technology areas must have >= 1 expert. 1 expert can cover >= 1 product. 1 expert can cover >= 1 technology area.
Rationale:	The CCB needs to cover all areas of AUTOSAR and has to balance and prioritize change request both out of technical aspects and of commercial aspects. To get quality out of the assessment the CCB needs to have access to expertise for all areas. It is not expected that the CCB members can possess this expertise themselves.
Use Case:	At any given time an expert may be needed to ensure professional analysis and processing of an RfC. Few experts may suffice to cover all required fields.
Dependencies:	[SMR0110] [SMR0160] [SMR0180]
Note:	Resource planning of AUTOSAR members may imply difficulties to fulfill this requirement.
Supporting Material:	--

4.2.6 CCB Access to experts [SMR0110]

Initiator:	WP20
Date:	2005-02-02
Short Description:	The Change management process shall be designed so that the CCB has appropriate access in time to experts.
Type:	new
Importance:	high
Description:	The CCB shall have access to a defined set of assigned experts in order to assess change requests. These experts must be available for the CCB in time so the requirement on change request response time and quality are met.
Rationale:	In order to meet expected response times on change requests the CCB must have access to adequate experts and those experts must not be a limiting factor in the turnaround time of a change request.
Use Case:	At any given time an expert may be needed to ensure professional analysis and processing of an RfC.
Dependencies:	[SMR0020], [SMR0100]
Note:	Resource planning of AUTOSAR members may imply difficulties to fulfill this requirement.
Supporting Material:	--

4.2.7 Meeting schedule for CCB shall be planned. [SMR0160]

Initiator:	WP20
Date:	2005-03-23
Short Description:	A planned meeting schedule for CCB shall be set with possibility for extraordinary meetings in between.
Type:	new
Importance:	medium
Description:	The meeting schedule for CCB shall be planned. There shall be a last deadline for RfCs to be issued before a CCB meeting in order to be handled at the meeting. The RfC has to be processed within a certain period of time (approx. every 3 months). This depends on the classification of the RfC. Uncritical RfCs can be processed within this time. Critical RfCs have to be processed immediately (within 2 weeks), requiring additional meetings. (Remark: The number of CCB meeting is not necessarily dependent on the Release frequency)
Rationale:	In order for CCB to be able to plan their own work and future releases there is a need for periodicity for handling change requests. Additional meetings are required to handle response time for critical RfC's. The meeting schedule should be made available to all parties concerned.
Use Case:	Critical RfCs: There is a gap between the interpretations of specification which could lead to different incompatible solutions. This has to be assessed within 2 weeks. Uncritical RfCs which would lead to a new feature. This can be done within the regular meeting period.
Dependencies:	--
Note:	--
Supporting Material:	--

4.2.8 Only AUTOSAR members can directly raise change requests [SMR0170]

Initiator:	WP20
Date:	2005-03-23
Short Description:	Only AUTOSAR members can directly raise change requests.
Type:	new
Importance:	low
Description:	Only AUTOSAR members can directly raise change requests.
Rationale:	AUTOSAR members are expected to issue change requests in line with the intentions of the standard, as members are committed to the AUTOSAR vision. AUTOSAR defines the change management process to deliver results in defined time frame. Unlimited number of RfC's from outside can cause overload.
Use Case:	An AUTOSAR RfC initiator issues an RfC into an automatic system according to the defined change management process. The RfC will be processed accordingly. An external input may still be valuable and will be put into the system via an AUTOSAR member after refining the request according to the AUTOSAR process and evaluation of its relevance.
Dependencies:	--
Note:	--
Supporting Material:	--

4.2.9 Mandates for different decision bodies [SMR0180]

Initiator:	WP20
Date:	2005-03-23
Short Description:	Clear definitions of mandates for different decision bodies are required
Type:	new
Importance:	high
Description:	Different decision bodies will be involved in and finally responsible to accept or reject a change request and this will depend on the magnitude of the change. There shall be a clear definition matrix to identify which level of change is decided by which decision body.
Rationale:	Bug fixes mainly affecting one product can and shall be decided as quickly as possible by the Change Manager or CCB, where as major changes which can affect future program planning, has to be decided on board level. Proposal for roles: - Change Manager (Responsible for Classification and owner of RfC) - RfC Expert Group (Responsible for effort estimation, impact analysis, risk analysis / Defined Roles: System Architect, SW Architect, Product expert, etc). They support the Change Manager on demand. - Decision body CCB (Responsible for all changes, but decide on major changes only) - Management Board for escalation purposes(e.g. Former Steering Committee)
Use Case:	Spelling errors can be done by a single person (Change Manager). Major changes have to be decided by a larger group of people with authority.
Dependencies:	[SMR0030], [SMR0070]
Note:	The scope of a change may not always be obvious. In order to correct a wrong decision, a period in which appeal against acceptance/refusal of a Change Request is possible may be helpful.
Supporting Material:	--

4.3 Requirements on release management

4.3.1 Minimum release period shall be defined [SMR0140]

Initiator:	WP20
Date:	2005-02-18
Short Description:	The minimum allowed period between releases of the AUTOSAR standard shall be defined.
Type:	new
Importance:	high
Description:	The minimum allowed period between releases of the AUTOSAR standard shall be defined. The change rate in the standard must be kept in control in order to get an efficient and stable product whilst not unduly discouraging innovation.
Rationale:	The success of the standard depends on the number of potential users. This implies a maximum of stability and quality. An unstable standard will reduce the acceptance and will put an extra workload especially on the product supplier's side. A large amount of variants will also increase the risk of poor quality products since test suites for each release will not have sufficient time to be developed. A typical period should exceed 1 year.
Use Case:	In case of frequent releases product suppliers will have to maintain a too large amount of variants of the products which will hinder the potential savings that the standard will bring.
Dependencies:	[SMR0090]
Note:	Improvements of the standard should be released in an acceptable period of time. Especially after the first releases there could be a relatively high amount of urgent changes. This would require the possibility of short-term modifications of the standard.
Supporting Material:	--

4.3.2 Every AUTOSAR release must clearly identify which products are included [SMR0210]

Initiator:	WP20
Date:	2005-02-18
Short Description:	A list of included products must be provided with every AUTOSAR release
Type:	new
Importance:	high
Description:	An AUTOSAR release is a superset of a distinct number of products that jointly present this release. It is necessary that the exact number of products as well as each individual product is clearly identified (including version information) in a central list (which is part of the core information accompanying the release) such that no ambiguity can exist over the elements of the release.
Rationale:	Confusion over the composition of a release must be avoided.
Use Case:	Release 2 will feature e.g. the RTE and ECU State Manager, but Release 1 will not. It is of critical importance that this information is transparent and readily available when required. Also the version of each included feature is necessary. Similar examples for the maintenance phase could easily be thought of, e.g. the inclusion or otherwise of MOST support in a later AUTOSAR release.
Dependencies:	[SMR0220], [SMR0240], [SMR0050]
Note:	--
Supporting Material:	--

4.3.3 A release policy shall be defined [SMR0250]

Initiator:	WP20
Date:	2005-04-19
Short Description:	The process of issuing new standard releases shall be embedded in a general release policy.
Type:	new
Importance:	high
Description:	Reliable planning of new standard releases shall base on a general release policy in order to manage the conflicting objectives of - keeping pace with technology advance. - ensuring a reliable and stable standard.
Rationale:	A new release will be indirectly triggered (that is in a controlled way) by either or a combination of: - Time (preferably at regular intervals) - Severity of changes - Number of changes In any case a comprehensive policy is required if AUTOSAR is not to be entirely driven by external events. The external environment itself - for example the need for an extraordinary release - must, however, be considered in that release policy. Another important aspect is that of external communication (e.g. early declaration of an upcoming release), which will be substantially simplified with a reliable release planning based on a sound release policy.
Use Case:	Standard changes: a change initiator will presumably be very interested not only that 'his/her' change gets accepted but also require an indication when a new standard release will be available that includes that change. It is apparently inefficient to handle this on an exception basis all the time - and thus preferable to refer to the next planned release instead. New development: it is intended that the multimedia domain will be supported by the AUTOSAR standard at a later point in time. This will not be a surprising change and must also be well prepared on a longer time horizon. To enable reliable planning for this new development, the base standard must not arbitrarily vary.
Dependencies:	[SMR0200]
Note:	--
Supporting Material:	--

4.3.4 Every AUTOSAR release must clearly identify any implied compatibility issues [SMR0220]

Initiator:	WP20
Date:	2005-02-18
Short Description:	Compatibility information shall be provided with the release.
Type:	new
Importance:	high
Description:	For each product or cluster within a release there shall be a definition of which earlier releases it is incompatible with. There shall also be a description of the nature of the incompatibility. In order for users to be able to adapt in time all planned deletions or changes, implying future backwards incompatibility shall be marked deprecated in the specification. Those changes shall be summarized in the release notes.
Rationale:	In order for the product to be usable over the lifecycle there has to be information available whether the release it is based on is compatible with a new one.
Use Case:	• Change of interface. • Change of behavior (additional internal states, timing differences, different algorithms producing different results)
Dependencies:	[SMR0240]
Note:	--
Supporting Material:	--

4.3.5 There shall be a numbering system that indicates version and release [SMR0240]

Initiator:	WP20
Date:	2005-04-06
Short Description:	A release numbering system shall be implemented to indicate release and version.
Type:	new
Importance:	medium
Description:	A release numbering system shall be implemented indicating release and version. Different positions in the numbering system indicate release, version and subversion (small change).
Rationale:	The user shall be provided with a quick view of the release in which the deliverable is included. A clearly defined reference numbering system can support this effort. The numbering system is not intended to replace release documentation which comprehensively describes compatibility issues.
Use Case:	• 3.1 belongs to release 3 and represent the second version of release 3 (3.0, 3.1, 3.2…)
Dependencies:	[SMR0220]
Note:	--
Supporting Material:	--

5 List of requirements

Requirement	***Satisfied by***
Maintenance is assumed when the standard is publicly released.	[SMR0010]
The maintenance processes shall be lean.	[SMR0020]
A guideline on how to process major changes and minor changes shall be defined.	[SMR0030]
Maintenance process shall be tailored to support standard consistency.	[SMR0040]
A list of which AUTOSAR modules are subject to maintenance shall be compiled.	[SMR0050]
Categorization of changes.	[SMR0070]
Formalization of change requests.	[SMR0080]
Deadlines for change requests to be considered for the next release shall be defined	[SMR0090]
Need for experts over time.	[SMR0100]
CCB Access to experts.	[SMR0110]
A communication policy shall be defined.	[SMR0130]
Minimum release period shall be defined.	[SMR0140]
Clustering of AUTOSAR modules shall be done and dependencies between clusters and modules shall be defined.	[SMR0150]
Meeting schedule for CCB shall be set.	[SMR0160]
Only AUTOSAR members can directly raise change requests.	[SMR0170]
Mandates for different decision bodies.	[SMR0180]
The maintenance processes shall be supported by a tailored tool environment.	[SMR0190]
The processes for Change management and Release management shall be decoupled.	[SMR0200]
Every AUTOSAR release must clearly identify which products are included.	[SMR0210]
Every AUTOSAR release must clearly identify any implied compatibility issues.	[SMR0220]
A general change policy shall be defined.	[SMR0230]
There shall be a numbering system that indicates version and release.	[SMR0240]
A release policy shall be defined.	[SMR0250]
Establishment of a maintenance function	[SMR0260]