

<b>Document Title</b>	SWS_LINStateManager: Complete Change Documentation 4.3.0 - 4.3.1
<b>Document Owner</b>	AUTOSAR
<b>Document Responsibility</b>	AUTOSAR
<b>Document Identification No</b>	695
<b>Document Status</b>	Final
<b>Part of AUTOSAR Standard</b>	Classic Platform
<b>Part of Standard Release</b>	4.3.1

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# 1 SWS\_LINStateManager

## 1.1 Specification Item ECUC\_LinSM\_00208

### Trace References:

none

### Content:

Name	LinSMModeRequestRepetitionMaxLinSMConfigSet.LinSMModeRequestRepetitionMax		
Description	Specifies the maximal amount of mode request repetitions without a respective mode indication from the LinIf module until the LinSM module reports a <b>Default Development</b> Error to the Det and tries to go back to no communication.		
Multiplicity	1		
Type	EcucIntegerParamDef		
Range	0 .. 255		
Default value	-		
Post-Build Variant Value	true		
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE
	Link time	X	VARIANT-LINK-TIME
	Post-build time	X	VARIANT-POST-BUILD
Scope / Dependency	scope: local		

### RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #73570: No "default error" in AUTOSAR

#### Problem description:

The DET was renamed from development error tracer to default error tracer.

This change was most of the time done automatically and unfortunately re-named "development error" to "default error".

"default error" should always be followed by "tracer", otherwise, "development error" is probably the right term.

This could increase the impact (compared to my selection of impacted document, but formally, the configuration parameters \*DevErrorDetect are not using the correct description:

"Switches the Default Error Tracer (Det) detection and notification..."

The parameter switches on/off the development error detection. The DET

does not need to be detected and can be present even when the parameter is set to false.

**Agreed solution:**

Rename "default error" to "development error" in all impacted documents, but not in an automated way (Do not change "default error tracer" to "developement error tracer"!)

Blueprint/Example:

- sub chapter is now called "7.x Default errors"
- "[SWS\_xxx\_yyyyy]
- In case default error detection is enabled for the xxxx module: The xxxx module shall check API parameters for validity and report detected errors to the DET. ()"
- "[SWS\_xxx\_yyyyy]
- If default error detection is enabled: the function shall check that the service xxx\_Init was previously called. If the check fails, the function shall raise the default error XXX\_E\_NOT\_INITIALIZED otherwise (if DET is disabled) return E\_NOT\_OK. ()"
- "In case default errors are enabled,..."
- "module raises the Default error XXX\_E\_TRANSITION"
- "The DET provides services to store default errors"
- ...

The correct text would be:

- sub chapter is called "7.x Development errors"
- "[SWS\_xxx\_yyyyy]
- In case development error detection is enabled for the xxxx module: The xxxx module shall check API parameters for validity and report detected development errors to the DET. ()"
- "[SWS\_xxx\_yyyyy]
- If development error detection is enabled: the function shall check that the service xxx\_Init was previously called. If the check fails, the function shall raise the development error XXX\_E\_NOT\_INITIALIZED otherwise (if DET is disabled) return E\_NOT\_OK. ()"
- "In case development errors are enabled,..."
- "module raises the development error XXX\_E\_TRANSITION"
- "The DET provides services to store development errors"

Solution for SWS\_RTE:

- SWS\_RTE —
- Change 4.8 Default errors to 4.8 Development errors
- Change "Errors which can occur at runtime in the RTE are classified as default errors" to "Errors which can occur at runtime in the RTE are classified as development errors"

errors"

- Remove [SWS\_Rte\_07676]
- Change [SWS\_RTE\_06611]"If a violation is detected the RTE shall report a default error to the DET." to "If a violation is detected the RTE shall report a development error to the DET."
- Change [SWS\_Rte\_06631]  
 [SWS\_Rte\_06631] d The RTE shall use the OS Application Identifier as the Instance Id to enable the developer to identify in which runtime section of the RTE the error occurs. This Instance ID is even unique across multi cores and so implicitly allows the development error to be traced to a specific core. c(SRS\_BSW\_00337)

SRS\_Libraries:

- In chapter "3 Acronyms and abbreviations": Rename "Development Error Tracer" to "Default Error Tracer"

SRS\_SPALGeneral:

- In chapter "6.1.1.3.1 [SRS\_SPAL\_00157] ...": Rename "Development Error Tracer" to "Default Error Tracer"
- In chapter "6.1.1.4.2 [SRS\_SPAL\_12448] ...": Rename "Development Error Tracer" to "Default Error Tracer"

SRS\_FlashTest:

- In chapter "6.1 Functional Requirements": Rename "Development Error Tracer" to "Default Error Tracer"
- In chapter "7 References":  
 Rename "Development Error Tracer" to "Default Error Tracer"  
 Rename "AUTOSAR\_SWS\_DevelopmentErrorTracer" to "AUTOSAR\_SWS\_DefaultErrorTracer"

SWS\_MFXLibrary:

- In chapter "2 Acronyms and abbreviations": Rename "Development Error Tracer" to "Default Error Tracer"

SWS\_MemoryAbstractionInterface:

- In chapter "3.1 Input documents":  
 Rename "Development Error Tracer" to "Default Error Tracer"  
 Rename "AUTOSAR\_SWS\_DevelopmentErrorTracer" to "AUTOSAR\_SWS\_DefaultErrorTracer"

**SWS\_FlexRayNetworkManagement:**

- In chapter "3.3 Related AUTOSAR documents":

Rename "Development Error Tracer" to "Default Error Tracer"

Rename "AUTOSAR\_SWS\_DevelopmentErrorTracer" to "AUTOSAR\_SWS\_DefaultErrorTracer"

**SWS\_CANStateManager:**

- In chapter "3.1 Input documents": Rename "AUTOSAR\_SWS\_DevelopmentErrorTracer" to "AUTOSAR\_SWS\_DefaultErrorTracer"

**SWS\_PDURouter:**

- In chapter "3.1 Input documents": Rename "AUTOSAR\_SWS\_DevelopmentErrorTracer" to "AUTOSAR\_SWS\_DefaultErrorTracer"

**SWS\_EEPROMDriver:**

- In chapter "3.1 Input documents": Rename "AUTOSAR\_SWS\_DevelopmentErrorTracer" to "AUTOSAR\_SWS\_DefaultErrorTracer"  
 –Last change on issue 73570 comment 47–

**BW-C-Level:**

Application	Specification	Bus
1	1	1

## 1.2 Specification Item SWS\_LinSM\_00053

**Trace References:**

none

**Content:**

Type or error	Related error code	Value [hex]
API called without initialization of LinSM	LINSM_E_UNINIT	0x00
Referenced network does not exist (identification is out of range)	LINSM_E_NONEXISTENT_NETWORK	0x20
API service called with wrong parameter	LINSM_E_PARAMETER	0x30
API service called with invalid pointer	LINSM_E_PARAM_POINTER	0x40
Timeout of the callbacks from LinIf	LINSM_E_CONFIRMATION_TIMEOUT	0x50

Type or error	Related error code	Value [hex]
Init function failed	LINSM_E_INIT_FAILED	0x60 0x50

**RfCs affecting this spec item between releases 4.3.0 and 4.3.1:**

- RfC #59085: Rollout of 'Runtime errors'

**Problem description:**

Inconsistencies in SWS with semantics of Default errors  
 –Last change on issue 59085 comment 26–

**Agreed solution:**

solution in Column "G" of the new attachment  
<https://www.autosar.org/bugzilla/attachment.cgi?id=4604>

**Notes:**

- It is not enough just to migrate the error from one classification table to another. Please also check the related requirements (and background information) which is referring to that error and adapt them if needed.
- The review task of the ITs shall be done by the WP to which the specification "belongs".

\*\*\* BSW UML Model \*\*\*

SWS\_CanNm:

\_\_\_\_\_

Chapter 8.6.1 Optional Interfaces:

Add within SWS\_CanNm\_00325 the API function Det\_ReportRunTimeError

SWS\_LinIf:

\_\_\_\_\_

SWS\_LinIf\_00359: add Det\_ReportRuntimeError

SWS\_UdpNm:

\_\_\_\_\_

Replace UDPNM\_E\_NO\_INIT with UDPNM\_E\_UNINIT in description of API  
 UdpNm\_MainFunction\_<Instance Id> (SWS\_UdpNm\_00234)

\*\*\* ECUC XML \*\*\*

Not affected. No configuration of runtime error reporting required (see SWS BSW

General).

–Last change on issue 59085 comment 88–

**BW-C-Level:**

Application	Specification	Bus
1	4	1

### 1.3 Specification Item SWS\_LinSM\_00086

**Trace References:**

SRS\_BSW\_00384

**Content:**

Default Error Tracer (if enabled) - DET

**RfCs affecting this spec item between releases 4.3.0 and 4.3.1:**

- RfC #59085: Rollout of 'Runtime errors'

**Problem description:**

Inconsistencies in SWS with semantics of Default errors

–Last change on issue 59085 comment 26–

**Agreed solution:**

solution in Column "G" of the new attachment  
<https://www.autosar.org/bugzilla/attachment.cgi?id=4604>

**Notes:**

- It is not enough just to migrate the error from one classification table to another. Please also check the related requirements (and background information) which is referring to that error and adapt them if needed.

- The review task of the ITs shall be done by the WP to which the specification "belongs".

\*\*\* BSW UML Model \*\*\*

SWS\_CanNm:

Chapter 8.6.1 Optional Interfaces:

Add within SWS\_CanNm\_00325 the API function Det\_ReportRunTimeError

SWS\_LinIf:

SWS\_LinIf\_00359: add Det\_ReportRuntimeError

SWS\_UdpNm:

Replace UDPNM\_E\_NO\_INIT with UDPNM\_E\_UNINIT in description of API UdpNm\_MainFunction\_<Instance Id> (SWS\_UdpNm\_00234)

\*\*\* ECUC XML \*\*\*

Not affected. No configuration of runtime error reporting required (see SWS BSW General).

–Last change on issue 59085 comment 88–

**BW-C-Level:**

Application	Specification	Bus
1	4	1

## 1.4 Specification Item SWS\_LinSM\_00102

**Trace References:**

none

**Content:**

**if LinSMDDevErrorDetect is enabled:** When a timeout occurs, the error code LINSM\_E\_CONFIRMATION\_TIMEOUT shall be reported to the DET module.

**RfCs affecting this spec item between releases 4.3.0 and 4.3.1:**

- RfC #59085: Rollout of 'Runtime errors'

**Problem description:**

Inconsistencies in SWS with semantics of Default errors

–Last change on issue 59085 comment 26–

**Agreed solution:**

solution in Column "G" of the new attachment <https://www.autosar.org/bugzilla/attachment.cgi?id=4604>

Notes:

- It is not enough just to migrate the error from one classification table to another. Please also check the related requirements (and background information) which is referring to that error and adapt them if needed.
- The review task of the ITs shall be done by the WP to which the specification "belongs".

\*\*\* BSW UML Model \*\*\*

SWS\_CanNm:

Chapter 8.6.1 Optional Interfaces:

Add within SWS\_CanNm\_00325 the API function Det\_ReportRunTimeError

SWS\_LinIf:

SWS\_LinIf\_00359: add Det\_ReportRuntimeError

SWS\_UdpNm:

Replace UDPNM\_E\_NO\_INIT with UDPNM\_E\_UNINIT in description of API UdpNm\_MainFunction\_<Instance Id> (SWS\_UdpNm\_00234)

\*\*\* ECUC XML \*\*\*

Not affected. No configuration of runtime error reporting required (see SWS BSW General).

–Last change on issue 59085 comment 88–

**BW-C-Level:**

Application	Specification	Bus
1	4	1

## 1.5 Specification Item SWS\_LinSM\_00224

**Trace References:**

none

**Content:**

Type or error	Related error code	Value [hex]
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Type or error	Related error code	Value [hex]
Not possible to perform the request, e.g. not initialized. Timeout of the callbacks from LinIf	E_NOT_OK LINSM_E_CONFIRMATION_TIMEOUT	0x00

### RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #59085: Rollout of 'Runtime errors'

#### Problem description:

Inconsistencies in SWS with semantics of Default errors  
 –Last change on issue 59085 comment 26–

#### Agreed solution:

solution in Column "G" of the new attachment  
<https://www.autosar.org/bugzilla/attachment.cgi?id=4604>

#### Notes:

- It is not enough just to migrate the error from one classification table to another. Please also check the related requirements (and background information) which is referring to that error and adapt them if needed.
- The review task of the ITs shall be done by the WP to which the specification "belongs".

\*\*\* BSW UML Model \*\*\*

SWS\_CanNm:

\_\_\_\_\_

Chapter 8.6.1 Optional Interfaces:

Add within SWS\_CanNm\_00325 the API function Det\_ReportRunTimeError

SWS\_LinIf:

\_\_\_\_\_

SWS\_LinIf\_00359: add Det\_ReportRuntimeError

SWS\_UdpNm:

\_\_\_\_\_

Replace UDPNM\_E\_NO\_INIT with UDPNM\_E\_UNINIT in description of API  
 UdpNm\_MainFunction\_<Instance Id> (SWS\_UdpNm\_00234)

\*\*\* ECUC XML \*\*\*

Not affected. No configuration of runtime error reporting required (see SWS BSW General).

–Last change on issue 59085 comment 88–

**BW-C-Level:**

Application	Specification	Bus
1	4	1

## 1.6 Specification Item SWS\_LinSM\_00229

**Trace References:**

none

**Content:**

**RfCs affecting this spec item between releases 4.3.0 and 4.3.1:**

- RfC #73464: Missing SWS ID in "AUTOSAR\_SWS\_LINStateManager\_422.pdf"

**Problem description:**

In Page 42 chapter "8.6 Mandatory Interfaces" before "[SWS\_LinSM\_00138]:Optional Interfaces" there should be a new ID to introduce the requirement for Mandatory Interfaces.

**Agreed solution:**

SWS\_LINStateManager: Add the missing requirement ID to the table of mandatory interfaces in chapter 8.6

–Last change on issue 73464 comment 4–

**BW-C-Level:**

Application	Specification	Bus
1	1	1