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1 SWS_LINInterface

1.1 Specification Item ECUC_LinIf_00033

Trace References:

none

Content:

Name	LinIfResumePositionLinIfScheduleTable.LinIfResumePosition		
Description	Defines where a RUN_CONTINUOUS schedule table shall proceed in case it has been interrupted by a RUN_ONCE table.		
Multiplicity	1		
Type	EcucEnumerationParamDef		
Range	CONTINUE_AT_IT_POINTLinIfScheduleTable.LinIfResumePosition.CONTINUE_AT_IT_POINT	Continue schedule table where it was interrupted.	
	START_FROM_BEGINNINGLinIfScheduleTable.LinIfResumePosition.START_FROM_BEGINNING	Start schedule table from the beginning.	
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 #76271: [LinIf]incomplete requirement for Schedule table resume behavior

Problem description:

As per below requirement,
[SWS_LinIf_00485] The definition where the execution of a schedule table shall be proceeded in case it has been interrupted by a table of the type RUN_ONCE shall be configurable by the configuration parameter LinIfResumePosition. ()

The schedule table resume behavior for the below use-case is explained.

RUN_CONTINUOUS Interrupted by RUN_ONCE

what about the relevance of LinIfResumePosition for the below use-cases ?

RUN_CONTINUOUS Interrupted by RUN_CONTINUOUS

RUN_CONTINUOUS Interrupted by NULL

RUN_ONCE Interrupted by NULL

Agreed solution:

ECU-C

=====

Change description of ECUC_LinIf_00033 to:

Defines where a RUN_CONTINUOUS schedule table shall proceed in case it has been interrupted by a RUN_ONCE table.

SWS

=====

Change SWS_LinIf_00485 to:

The definition where the execution of a RUN_CONTINUOUS schedule table shall be proceeded in case it has been interrupted by a table of the type RUN_ONCE shall be configurable by the configuration parameter LinIfResumePosition.

–Last change on issue 76271 comment 21–

BW-C-Level:

Application	Specification	Bus
1	4	4

1.2 Specification Item ECUC_LinIf_00069

Trace References:

none

Content:

Name	LinIfStartupStateLinIfChannel.LinIfStartupState	
Parent Container	LinIfChannel	
Description	Defines the state of each LIN channel after startup Tags: atp.Status=obsolete	
Multiplicity	1 0..1	
Type	EcucEnumerationParamDef	
Range	NORMALLinIfChannel.LinIfStartupState.NORMAL	The state of the channel shall be LINIF_CHANNEL_OPERATIONAL after startup. Tags: atp.Status=obsolete
	SLEEPLinIfChannel.LinIfStartupState.SLEEP	The state of the channel shall be LINIF_CHANNEL_SLEEP after startup. Tags: atp.Status=obsolete
Post-Build Variant Value	false	

Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE
	Link time	X	VARIANT-LINK-TIME, VARIANT-POST-BUILD
	Post-build time	–	
Scope / Dependency	scope: local		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #73095: [LinSM][LinIf][Lin] Inconsistent LIN channel states upon initialization

Problem description:

As per SWS_Lin_00171, LIN channel state upon initialization shall be LIN_CH_OPERATIONAL

As per SWS_LinIf_00507, LinIf channel state upon initialization shall be either LINIF_CHANNEL_OPERATIONAL or LINIF_CHANNEL_SLEEP depending on the configuration parameter LinIfStartupState

As per SWS_LinSM_00152, LinSM state for all networks upon initialization shall be LINSM_NO_COM

This is an inconsistent state within the LIN Stack since LIN driver channel is operational but LinSM is in NO_COM and LinIf state could be either!

Tracking the history of LinIf (Bug 27547) it seems that when LinIfStartupState was introduced, then Bug 27547 comment 8 was not addressed at that time to avoid this inconsistency.

Is there a use case to start the LIN channels in OPERATIONAL?

Should the LinSM already transition the channels to SLEEP following initialization? (similar to CanSM)

Or should the Lin driver specifications be updated to allow for either state following initialization (similar to LinIf and LinTrcv specifications)

Agreed solution:

=====
For CP R4.3.1
=====

SRS LIN

=====
1) [SRS_Lin_01514], Description: Change

from

<The LIN Interface shall inform an upper layer if a wake-up request was notified by the underlying LIN Driver

<A wakeup notification shall only be raised in the case a go-to-sleep-command has been issued to the bus.

to

>The LIN Interface shall inform an upper layer if a wake-up request was notified by the underlying LIN Driver.

SWS LinIf

=====

1) Sec. 4.1 Limitations: Add following description

+It's assumed that all of connected LIN Slave ECUs can receive a wakeup frame when they are already operational (as LIN Master ECU starts with LINIF_CHANNEL_SLEEP state).

2) Chap. 7, [SWS_LinIf_00507]: Change

from

<[SWS_LinIf_00507] The LIN Interface shall transit from LINIF_UNINIT to

< LINIF_CHANNEL_OPERATIONAL when the function LinIf_Init is called and the configuration parameter LinIfStartupState is set to NORMAL.

< LINIF_CHANNEL_SLEEP when the function LinIf_Init is called and the configuration parameter LinIfStartupState is set to SLEEP. ()

to

>[SWS_LinIf_00507] The LIN Interface shall transit from LINIF_UNINIT to LINIF_CHANNEL_SLEEP without sending go-to-sleep command, when the function LinIf_Init is called. ()

>Note: it is assumed that automatically slave nodes will enter bus sleep mode earliest after 4s and latest 10s of bus inactivity (as specified in LIN 2.1).

3) Chap. 7, Figure 4 (stm LinIf Node Management): Update the figure as described below

-Remove the transition to LINIF_CHANNEL_OPERATIONAL with LinIf_Init [LinIfStartupState=NORMAL]

-Remove the transition to LINIF_CHANNEL_SLEEP with LinIf_Init [LinIfStartupState=SLEEP]

+Add the initial transition to LINIF_CHANNEL_SLEEP inside the state LINIF_INIT

4) Chap. 10, ECUC_LinIf_00069: Set the parameter LinIfStartupState to obsolete

5) Chap. 10, Figure 20: Remove the parameter LinIfStartupState

SWS LinTrcv

=====

Chapter 7.1

Update figure: remove transitions from NOT_ACTIVE to LIN-TRCV_TRCV_MODE_STANDBY and LINTRCV_TRCV_MODE_NORMAL.

Remove the following sentence:

The function LinTrcv_Init() causes a state change to either LIN-TRCV_TRCV_MODE_SLEEP, LINTRCV_TRCV_MODE_NORMAL or LIN-TRCV_TRCV_MODE_STANDBY (any of these 3 states belong to the upper state ACTIVE). This depends on the configuration and is independent configurable for each channel.

Change SWS_LinTrcv_00119 from

The function LinTrcv_Init shall set the LIN transceiver hardware to the state configured by the configuration parameter LinTrcvInitState.

This can be LINTRCV_TRCV_MODE_NORMAL, LIN-TRCV_TRCV_MODE_STANDBY or LINTRCV_TRCV_MODE_SLEEP.

to

The function LinTrcv_Init shall set the LIN transceiver hardware to the state LIN-TRCV_TRCV_MODE_SLEEP.

Remove SWS_LinTrcv_00146.

remove configurations note after SWS_LinTrcv_00146

set ECUC_LinTrcv_00005 to obsolete.

SWS Lin

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- Change SWS_Lin_00171 to: "On entering the state LIN_INIT, the Lin module shall set each channel into state LIN_CH_SLEEP, enable the wake-up detection (if enabled by LinChannelWakeupSupport), and optionally set the LIN hardware unit to reduced power operation mode (if supported by HW)."

- Change initial transition in figure 7-1 to LIN_CH_SLEEP.

- SWS_Lin_00168 Lin_GetStatus: Change LIN_OPERATIONAL description to "Normal operation; the related LIN channel is woken up from the LIN_CH_SLEEP and no data has been sent."

SWS LinSM

=====

no changes required

TPS System Template

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1) Appendix C: Remove the rule of the parameter LinIfStartupState
–Last change on issue 73095 comment 46–

BW-C-Level:

Application	Specification	Bus
1	4	4

1.3 Specification Item SWS_LinIf_00028

Trace References:

SRS_Lin_01546

Content:

The LIN Interface shall **select a new schedule table for execution** **start the newly requested schedule table** at the next possible time (**e.g. at start of a frame slot**) if the current schedule is RUN_CONTINUOUS.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76219: [LinIf]Schedule table switch behavior when same schedule table is called

Problem description:

Some clarity is missing for below use-cases while schedule table switch occurs.

1. [SWS_LinIf_00028] The LIN Interface shall select a new schedule table for execution during the next schedule entry if the current schedule is RUN_CONTINUOUS. (SRS_Lin_01546)

Use-case:

What if the schedule table running currently and the new schedule table are same ?

Possibilities:

1. Ignore the request ?
2. Behave as if the new request is for new schedule table ?
i.e: restart the currently running Run_continuous schedule table.

2. How should this be handled for RUN_ONCE

[SWS_LinIf_00393] The LIN Interface shall execute a schedule table of the type RUN_ONCE from the first entry to the last entry before changing to a new schedule table. But, if a collision occurs in an event-triggered frame response, the LIN Interface shall switch to a collision resolving schedule table according to SWS_LinIf_00176. (SRS_Lin_01546)

Possibilities:

1. Ignore the request ?
 2. Behave as if the new request is for new schedule table ?
- i.e: Same Run_Once schedule table to be executed twice ?

Agreed solution:

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AUTOSAR 4.3.1

=====

SWS LinIf

1) Change description between [SWS_LinIf_00444] and [SWS_LinIf_00028]
from

< The LIN Interface allows changing of the current schedule table to another one.
to

> The LIN Interface allows changing of the current schedule table to another one or to the beginning of the same schedule table.

2) Change [SWS_LinIf_00028]
from

< The LIN Interface shall select a new schedule table for execution at the next possible time if the current schedule is RUN_CONTINUOUS. (SRS_Lin_01546)
to

> The LIN Interface shall start the newly requested schedule table at the next possible time (e.g. at start of a frame slot) if the current schedule is RUN_CONTINUOUS. (SRS_Lin_01546)

> Note: It is possible to request the same schedule table again. In this case, the table is restarted.

3) Change [SWS_LinIf_00495]

from
< If the switch from one schedule table to another schedule table has been performed, the schedule table manager shall call the function <User>_ScheduleRequestConfirmation. ()
to
> If the switch to a requested schedule table has been performed, the schedule table manager shall call the function <User>_ScheduleRequestConfirmation. (SRS_Lin_01564)

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AUTOSAR 3.2.4 LOKI

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proposed solution shall be provided by RfC 78073
–Last change on issue 76219 comment 48–

BW-C-Level:

Application	Specification	Bus
1	4	4

1.4 Specification Item SWS_LinIf_00036

Trace References:

none

Content:

If the return code of the function Lin_GetStatus is LIN_TX_ERROR and any LIN frame transmission is attempted, the LIN Interface shall consider the transmitted frame as lost and **raise the development report the runtime** error code LINIF_E_RESPONSE , **if the default error detection is enabled**to the **Default Error Tracer**.

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

- 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 "developement 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 developement 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"
- 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

1.5 Specification Item SWS_LinIf_00254

Trace References:

none

Content:

When the LIN Interface has determined the LIN Driver module's status as LIN_RX_BUSY or LIN_RX_ERROR, the LIN Interface shall consider the received frame as lost. Therefore, the LIN Interface shall **raise the development report the runtime** error code LINIF_E_RESPONSE **to the Default Error Tracer**, if this frame is an unconditional frame **and the default error detection is enabled**.

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

- 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 "developement 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 developement 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"

- 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 "AU-

TOSAR_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

1.6 Specification Item SWS_LinIf_00359

Trace References:

none

Content:

API function	Description
BswM_LinTp_RequestMode	Function called by LinTP to request a mode for the corresponding LIN channel. The LinTp_Mode correlates to the LIN schedule table that should be used.
Det_ReportRuntimeError	Service to report runtime errors. If a callout has been configured then this callout shall be called.
Lin_GetStatus	Gets the status of the LIN driver.
Lin_GoToSleep	The service instructs the driver to transmit a go-to-sleep-command on the addressed LIN channel.
Lin_GoToSleepInternal	Sets the channel state to LIN_CH_SLEEP, enables the wake-up detection and optionally sets the LIN hardware unit to reduced power operation mode (if supported by HW).
Lin_SendFrame	Sends a LIN header and a LIN response, if necessary. The direction of the frame response (master response, slave response, slave-to-slave communication) is provided by the PduInfoPtr.
Lin_Wakeup	Generates a wake up pulse and sets the channel state to LIN_CH_OPERATIONAL.
Lin_WakeupInternal	Sets the channel state to LIN_CH_OPERATIONAL without generating a wake up pulse.

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

1.7 Specification Item SWS_LinIf_00360

Trace References:

none

Content:

API function	Description
Det_ReportError	Service to report development errors.
Lin_CheckWakeup	This function checks if a wakeup has occurred on the addressed LIN channel.
LinSM_GotoSleepConfirmation	The LinIf will call this callback when the go to sleep command is sent successfully or not sent successfully on the network.
LinSM_ScheduleRequestConfirmation	The LinIf module will call this callback when the new requested schedule table is active.
LinSM_WakeupConfirmation	The LinIf will call this callback when the wake up signal command is sent not successfully/successfully on the network.
LinTrcv_CheckWakeup	Notifies the calling function if a wakeup is detected.
LinTrcv_GetBusWuReason	This API provides the reason for the wakeup that the LIN transceiver has detected in the parameter "Reason". The ability to detect and differentiate the possible wakeup reasons depends strongly on the LIN transceiver hardware.
LinTrcv_GetOpMode	API detects the actual software state of LIN transceiver driver.
LinTrcv_SetOpMode	The internal state of the LIN transceiver driver is switched to mode given in the parameter OpMode.
LinTrcv_SetWakeupMode	This API enables, disables and clears the notification for wakeup events on the addressed network.
PduR_LinIfRxIndication	Indication of a received PDU from a lower layer communication interface module.
PduR_LinIfTriggerTransmit	Within this API, the upper layer module (called module) shall check whether the available data fits into the buffer size reported by PduInfoPtr->SduLength. If it fits, it shall copy its data into the buffer provided by PduInfoPtr->SduDataPtr and update the length of the actual copied data in PduInfoPtr->SduLength. If not, it returns E_NOT_OK without changing PduInfoPtr.
PduR_LinIfTxConfirmation	The lower layer communication interface module confirms the transmission of a PDU, or the failure to transmit a PDU.
PduR_LinTpCopyRxData	This function is called to provide the received data of an I-PDU segment (N-PDU) to the upper layer. Each call to this function provides the next part of the I-PDU data. The size of the remaining data buffer is written to the position indicated by bufferSizePtr.

API function	Description
PduR_LinTpCopyTxData	This function is called to acquire the transmit data of an I-PDU segment (N-PDU). Each call to this function provides the next part of the I-PDU data unless retry->TpDataState is TP_DATARETRY. In this case the function restarts to copy the data beginning at the offset from the current position indicated by retry->TxTpData Cnt. The size of the remaining data is written to the position indicated by availableDataPtr.
PduR_LinTpRxIndication	Called after an I-PDU has been received via the TP API, the result indicates whether the transmission was successful or not.
PduR_LinTpStartOfReception	This function is called at the start of receiving an N-SDU. The N-SDU might be fragmented into multiple N-PDUs (FF with one or more following CFs) or might consist of a single N-PDU (SF). The service shall provide the currently available maximum buffer size when invoked with TpSduLength equal to 0.
PduR_LinTpTxConfirmation	This function is called after the I-PDU has been transmitted on its network, the result indicates whether the transmission was successful or not.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76404: [Det] Clarifications on runtime errors

Problem description:

There are several uncertainties/problems in the SWS DET:

1. According to SWS_Det_00180, the callouts should have the same signatures as the corresponding DET functions, but they are void(void) (SWS_Det_00181, SWS_Det_00184, SWS_Det_00187).
2. Section 8.2.3.1 does not describe how the instance ID is passed to DET.
3. Configuration of header files for all three error type callouts are missing.
4. Why does the development error callout reside in DetNotification, while the other two callouts reside in DetGeneral?
5. The limitation in section 4.1 regarding "supervisor mode" does not really make sense. It is assumed that the DET is ignorant regarding the call context, and the software receiving DET callbacks (like DLT or the implementers of the callouts) need to take care of resolving the calling context, if necessary (e.g. in multi-core environments).
6. SWS_Det_00302 defines several runtime errors. But apart from DET_E_CANNOT_REPORT, it is unclear in which situation these errors could be reported by DET: For errors reported by BSW, the DET has no means to validate anything that could lead to such an error. And for SWCs, the modeling already takes care that DET_E_WRONG_MODULE and DET_E_WRONG_INSTANCE cannot occur, while the other two errors can also not be checked by DET without further configuration.
7. Det_ReportTransientFault (SWS_Det_01003) shall return the return value of a

configured callout. But what shall happen if more than one callout exists, and the return different values?

8. SWS_Det_00052: The only API that can result in DET_E_PARAM_POINTER is Det_GetVersionInfo (as the error description mentions correctly). Please reformulate this requirement and move it to section 8.1.3.6 "Det_GetVersionInfo".

–Last change on issue 76404 comment 13–

Agreed solution:

1.

~change SWS_Det_00181/184/187 such that signatures match the APIs

~Figures 3,5, and 7 to be corrected (return missing)

5. remove from 4.1. the sentence: "It is assumed that the whole Basic Software runs in supervisor mode or the switch to supervisor mode is done by a system call within the error reporting function of the DET module."

6. remove SWS_Det_00302 and SWS_Det_00303 and all included errors

7. change SWS_Det_01003 (Return Value-Part only): "Std_ReturnType" If no callout exists it shall return E_OK, otherwise it shall return the value of the configured callout. In case several callouts are configured the logical or (sum) of the callout return values shall be returned. Rationale: since E_OK=0, E_OK will be only returned if all are E_OK, and for multiple error codes there is a good chance to detect several of them.

8. change SWS_Det_00052 from "in case a null pointer error occurs." to "in case a null pointer error occurs in Det_GetVersionInfo." Do not move the requirement, since otherwise the section 7.7 would be empty, but add the following sentence to 8.1.3.6: "In case a null pointer is passed, DET_E_PARAM_POINTER is returned, see SWS_Det_00052."

–Last change on issue 76404 comment 30–

BW-C-Level:

Application	Specification	Bus
1	4	1

- RfC #77935: [PduR] Misleading description of CopyRxData

Problem description:

Name: Martin Schlodder

Role: Member of WP-A2

Description/Motivation:

The description of the CopyRxData API says: "The size of the remaining data is written to the position indicated by bufferSizePtr."

This text seems to have been copied from the CopyTxData call, where it is correct. CopyRxData should talk about "remaining buffer", not "remaining data".

Agreed solution:

In the description of the API PduR_<User:LoTp>CopyRxData (SWS_PduR_00512), replace "remaining data" by "remaining buffer".

BW-C-Level:

Application	Specification	Bus
1	1	1

1.8 Specification Item SWS_LinIf_00371

Trace References:

SRS_BSW_00344, SRS_BSW_00404, SRS_BSW_00405, SRS_Lin_01570

Content:

The parameter ConfigPtr of the function LinIf_Init is only relevant for the configuration variant VARIANT-POST-BUILD. The parameter ConfigPtr shall be ignored for the configuration variant VARIANT-PRE-COMPILE and the configuration variant VARIANT-LINK-TIME.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76193: [Variant Handling] Pre-Compile with multiple variation points

Problem description:

In AUTOSAR_EXP_LayeredSoftwareArchitecture.pdf, on slide number 101, for Pre-Compile(1) under the heading 'Restrictions', it is mentioned that 'the configuration is static and it may consist of one or more configuration sets identified by means of variation points. To update any configuration set (e.g. change the value of certain parameters), the module has to be recompiled.'

1. If Configuration consist of one or more configuration sets identified by means of variation points in pre-compile time then as per our understanding we should consider 'ConfigPtr' for <Msn>_Init in pre-compile time. But in LinIf, it is mentioned [SWS_LinIf_00371] The parameter ConfigPtr of the function LinIf_Init is only relevant for the configuration variant VARIANT-POST-BUILD. The parameter ConfigPtr shall be ignored for the configuration variant VARIANT-PRE-COMPILE and the configuration variant VARIANT-LINK-TIME. If ConfigPtr needs to be ignored for the configuration variant VARIANT-PRE-COMPILE, then how to understand

which variation point is to be selected?

2. When Post-Build with multiple variations is there, then what is the need of Pre-compile with multiple variation points?

Agreed solution:

Remove SWS_LinIf_00371.

–Last change on issue 76193 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.9 Specification Item SWS_LinIf_00375

Trace References:

SRS_BSW_00167

Content:

The LIN Interface shall not make any consistency check of the configuration in run-time in production software. It may be done if the **default development** error detection is enabled.

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

1.10 Specification Item SWS_LinIf_00376

Trace References:

SRS_BSW_00406, SRS_BSW_00337, SRS_BSW_00339, SRS_BSW_00385, SRS_BSW_00327

Content:

The following Table 1 shows the available error codes, which shall be detected by the LIN Interface and the LIN TP:

Type or error	Relevance Related error code	Value [hex]
---------------	---------------------------------	-------------

Type or error	Relevance Related error code	Value [hex]
API called without initialization of LIN Interface	Development LINIF_E_UNINIT	0x00
Referenced channel does not exist (identification is out of range)	Development LINIF_E_NONEXISTENT_CHANNEL	0x20
API service called with wrong parameter	Development LINIF_E_PARAMETER	0x30
API service called with invalid pointer	Development LINIF_E_PARAM_POINTER	0x40
Schedule request made in channel sleep	Development LINIF_E_SCHEDULE_REQUEST_ERROR	0x51
API service called with invalid parameter for LIN transceiver operation mode	Development LINIF_E_TRCV_INV_MODE	0x53
Referenced transceiver state is not normal	Development LINIF_E_TRCV_NOT_NORMAL	0x54
API service called with invalid parameter for WakeupSource	Development LINIF_E_PARAM_WAKEUPSOURCE	0x55
LIN frame error detected	Development	LINIF_E_RESPONSE
Slave did not answer on a node configuration request	Development	LINIF_E_NC_NO_RESPONSE

Table [REF] - **Development** Error codes for 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

1.11 Specification Item SWS_LinIf_00405

Trace References:

none

Content:

The LIN Interface shall **raise the development report the runtime** error code LINIF_E_NC_NO_RESPONSE **to the Default Error Tracer**, if it has put a SRF in the schedule table after a node configuration command and if **it has not received an answer from the slave and if the default error detection is enabled****there's no response from any slaves (timed out)**. The error shall always be reported, even if the previous configuration command was not transmitted successfully.

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

- 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 "development 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"

- 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

- RfC #77933: [LinTp]Clarification on processing of response for a Node configuration request

Problem description:

Some clarity is missing regarding the processing required for the LIN SLave response of a node configuration request.

The requirement [SWS_LinIf_00405] in Lin SWS, only talks about monitoring a response

What about the case when the response is received but the RSID (Response Service ID) or any other byte within the response data have inconsistent values ?

Should this case be treated as NO RESPONSE ?
or no processing is required and only monitoring a response is enough ?

Agreed solution:

```
=====
AUTOSAR 4.3.1
=====
```

change the requirement SWS_LinIf_00405
from

< [SWS_LinIf_00405] The LIN Interface shall raise the development error code LINIF_E_NC_NO_RESPONSE, if it has put a SRF in the schedule table after a node configuration command and if it has not received an answer from the slave and if the default error detection is enabled. The error shall always be reported, even if the previous configuration command was not transmitted successfully. ()

to

> [SWS_LinIf_00405] The LIN Interface shall raise the development error code LINIF_E_NC_NO_RESPONSE, if it has put a SRF in the schedule table after a node configuration command and if there's no response from any slaves (timed out) and if the development error detection is enabled. The error shall always be reported, even if the previous configuration command was not transmitted successfully. ()

> Note: The LIN Interface will not raise the development error code LINIF_E_NC_NO_RESPONSE, if there's any slave response (regardless of its contents, e.g. RSID).

–Last change on issue 77933 comment 23–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.12 Specification Item SWS_LinIf_00465

Trace References:

none

Content:

If, just before a new frame is transmitted, the return code of the function Lin_GetStatus is LIN_TX_BUSY, the LIN Interface shall consider the old frame as lost and **raise the development report the runtime** error code LINIF_E_RESPONSE , **if the default error detection is enabled** to the **Default Error Tracer**.

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

- 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 "developement 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 developement 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"

- 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"

TOSAR_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

1.13 Specification Item SWS_LinIf_00466

Trace References:

none

Content:

When the LIN Interface has determined the LIN Driver module's status as LIN_RX_NO_RESPONSE, the LIN Interface shall consider the expected frame as lost. Therefore, the LIN Interface shall **raise the development report the runtime** error code LINIF_E_RESPONSE **to the Default Error Tracer**, if this frame is an unconditional frame **and the default error detection is enabled**.

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

- 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 "development 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"
- 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

1.14 Specification Item SWS_LinIf_00485

Trace References:

none

Content:

The definition where the execution of a **RUN_CONTINUOUS** schedule table shall be proceeded in case it has been interrupted by a table of the type RUN_ONCE shall be configurable by the configuration parameter LinIfResumePosition.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76271: [LinIf]incomplete requirement for Schedule table resume behavior

Problem description:

As per below requirement,
[SWS_LinIf_00485] The definition where the execution of a schedule table shall be proceeded in case it has been interrupted by a table of the type RUN_ONCE shall be configurable by the configuration parameter LinIfResumePosition. ()

The schedule table resume behavior for the below use-case is explained.

RUN_CONTINUOUS Interrupted by RUN_ONCE

what about the relevance of LinIfResumePosition for the below use-cases ?

RUN_CONTINUOUS Interrupted by RUN_CONTINUOUS

RUN_CONTINUOUS Interrupted by NULL

RUN_ONCE Interrupted by NULL

Agreed solution:

ECU-C

=====

Change description of ECUC_LinIf_00033 to:

Defines where a RUN_CONTINUOUS schedule table shall proceed in case it has been interrupted by a RUN_ONCE table.

SWS

=====

Change SWS_LinIf_00485 to:

The definition where the execution of a RUN_CONTINUOUS schedule table shall be proceeded in case it has been interrupted by a table of the type RUN_ONCE

shall be configurable by the configuration parameter LinIfResumePosition.
–Last change on issue 76271 comment 21–

BW-C-Level:

Application	Specification	Bus
1	4	4

1.15 Specification Item SWS_LinIf_00495

Trace References:

SRS_Lin_01564

Content:

If the switch from one schedule table to another to a requested schedule table has been performed, the schedule table manager shall call the function <User>_ScheduleRequest Confirmation.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76219: [LinIf]Schedule table switch behavior when same schedule table is called

Problem description:

Some clarity is missing for below use-cases while schedule table switch occurs.

1. [SWS_LinIf_00028] The LIN Interface shall select a new schedule table for execution during the next schedule entry if the current schedule is RUN_CONTINUOUS. (SRS_Lin_01546)

Use-case:

What if the schedule table running currently and the new schedule table are same ?

Possibilities:

1. Ignore the request ?
2. Behave as if the new request is for new schedule table ?
i.e: restart the currently running Run_continuous schedule table.

2. How should this be handled for RUN_ONCE

[SWS_LinIf_00393] The LIN Interface shall execute a schedule table of the type RUN_ONCE from the first entry to the last entry before changing to a new schedule table. But, if a collision occurs in an event-triggered frame response,

the LIN Interface shall switch to a collision resolving schedule table according to SWS_LinIf_00176. (SRS_Lin_01546)

Possibilities:

1. Ignore the request ?
 2. Behave as if the new request is for new schedule table ?
- i.e: Same Run_Once schedule table to be executed twice ?

Agreed solution:

=====

AUTOSAR 4.3.1

=====

SWS LinIf

1) Change description between [SWS_LinIf_00444] and [SWS_LinIf_00028]
from
< The LIN Interface allows changing of the current schedule table to another one.
to
> The LIN Interface allows changing of the current schedule table to another one or to the beginning of the same schedule table.

2) Change [SWS_LinIf_00028]
from
< The LIN Interface shall select a new schedule table for execution at the next possible time if the current schedule is RUN_CONTINUOUS. (SRS_Lin_01546)
to
> The LIN Interface shall start the newly requested schedule table at the next possible time (e.g. at start of a frame slot) if the current schedule is RUN_CONTINUOUS. (SRS_Lin_01546)
> Note: It is possible to request the same schedule table again. In this case, the table is restarted.

3) Change [SWS_LinIf_00495]
from
< If the switch from one schedule table to another schedule table has been performed, the schedule table manager shall call the function <User>_ScheduleRequestConfirmation. ()
to

> If the switch to a requested schedule table has been performed, the schedule table manager shall call the function <User>_ScheduleRequestConfirmation. (SRS_Lin_01564)

=====

AUTOSAR 3.2.4 LOKI

=====

proposed solution shall be provided by RfC 78073
–Last change on issue 76219 comment 48–

BW-C-Level:

Application	Specification	Bus
1	4	4

1.16 Specification Item SWS_LinIf_00498

Trace References:

none

Content:

The LIN Interface shall include the file Det.h if the configuration parameter LinIfDevError Detect is enabled.

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

1.17 Specification Item SWS_LinIf_00507

Trace References:

none

Content:

The LIN Interface shall transit from LINIF_UNINIT to

LINIF_CHANNEL_OPERATIONAL when the function LinIf_Init is called and the configuration parameter LinIfStartupState is set to NORMAL.

LINIF_CHANNEL_SLEEP SLEEP without sending go-to-sleep command, when the function LinIf_Init is called and the configuration parameter LinIfStartupState is set to SLEEP.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #73095: [LinSM][LinIf][Lin] Inconsistent LIN channel states upon initialization

Problem description:

As per SWS_Lin_00171, LIN channel state upon initialization shall be LIN_CH_OPERATIONAL

As per SWS_LinIf_00507, LinIf channel state upon initialization shall be either LINIF_CHANNEL_OPERATIONAL or LINIF_CHANNEL_SLEEP depending on the configuration parameter LinIfStartupState

As per SWS_LinSM_00152, LinSM state for all networks upon initialization shall be LINSM_NO_COM

This is an inconsistent state within the LIN Stack since LIN driver channel is operational but LinSM is in NO_COM and LinIf state could be either!

Tracking the history of LinIf (Bug 27547) it seems that when LinIfStartupState was introduced, then Bug 27547 comment 8 was not addressed at that time to avoid this inconsistency.

Is there a use case to start the LIN channels in OPERATIONAL?

Should the LinSM already transition the channels to SLEEP following initialization? (similar to CanSM)

Or should the Lin driver specifications be updated to allow for either state following initialization (similar to LinIf and LinTrcv specifications)

Agreed solution:

=====
For CP R4.3.1
=====

SRS LIN

=====
1) [SRS_Lin_01514], Description: Change
from

<The LIN Interface shall inform an upper layer if a wake-up request was notified by the underlying LIN Driver
<A wakeup notification shall only be raised in the case a go-to-sleep-command has been issued to the bus.
to
>The LIN Interface shall inform an upper layer if a wake-up request was notified by the underlying LIN Driver.

SWS LinIf

=====

1) Sec. 4.1 Limitations: Add following description

+It's assumed that all of connected LIN Slave ECUs can receive a wakeup frame when they are already operational (as LIN Master ECU starts with LINIF_CHANNEL_SLEEP state).

2) Chap. 7, [SWS_LinIf_00507]: Change
from

<[SWS_LinIf_00507] The LIN Interface shall transit from LINIF_UNINIT to
< LINIF_CHANNEL_OPERATIONAL when the function LinIf_Init is called and the configuration parameter LinIfStartupState is set to NORMAL.
< LINIF_CHANNEL_SLEEP when the function LinIf_Init is called and the configuration parameter LinIfStartupState is set to SLEEP. ()
to

>[SWS_LinIf_00507] The LIN Interface shall transit from LINIF_UNINIT to LINIF_CHANNEL_SLEEP without sending go-to-sleep command, when the function LinIf_Init is called. ()

>Note: it is assumed that automatically slave nodes will enter bus sleep mode earliest after 4s and latest 10s of bus inactivity (as specified in LIN 2.1).

3) Chap. 7, Figure 4 (stm LinIf Node Management): Update the figure as described below

-Remove the transition to LINIF_CHANNEL_OPERATIONAL with LinIf_Init [LinIfStartupState=NORMAL]

-Remove the transition to LINIF_CHANNEL_SLEEP with LinIf_Init [LinIfStartupState=SLEEP]

+Add the initial transition to LINIF_CHANNEL_SLEEP inside the state LINIF_UNINIT

4) Chap. 10, ECUC_LinIf_00069: Set the parameter LinIfStartupState to obsolete

5) Chap. 10, Figure 20: Remove the parameter LinIfStartupState

SWS LinTrcv

=====

Chapter 7.1

Update figure: remove transitions from NOT_ACTIVE to LIN-TRCV_TRCV_MODE_STANDBY and LINTRCV_TRCV_MODE_NORMAL.

Remove the following sentence:

The function LinTrcv_Init() causes a state change to either LIN-TRCV_TRCV_MODE_SLEEP, LINTRCV_TRCV_MODE_NORMAL or LIN-TRCV_TRCV_MODE_STANDBY (any of these 3 states belong to the upper state ACTIVE). This depends on the configuration and is independent configurable for each channel.

Change SWS_LinTrcv_00119 from

The function LinTrcv_Init shall set the LIN transceiver hardware to the state configured by the configuration parameter LinTrcvInitState.

This can be LINTRCV_TRCV_MODE_NORMAL, LIN-TRCV_TRCV_MODE_STANDBY or LINTRCV_TRCV_MODE_SLEEP.
to

The function LinTrcv_Init shall set the LIN transceiver hardware to the state LIN-TRCV_TRCV_MODE_SLEEP.

Remove SWS_LinTrcv_00146.

remove configurations note after SWS_LinTrcv_00146

set ECUC_LinTrcv_00005 to obsolete.

SWS Lin

=====

- Change SWS_Lin_00171 to: "On entering the state LIN_INIT, the Lin module shall set each channel into state LIN_CH_SLEEP, enable the wake-up detection (if enabled by LinChannelWakeupSupport), and optionally set the LIN hardware unit to reduced power operation mode (if supported by HW)."

- Change initial transition in figure 7-1 to LIN_CH_SLEEP.

- SWS_Lin_00168 Lin_GetStatus: Change LIN_OPERATIONAL description to "Normal operation; the related LIN channel is woken up from the LIN_CH_SLEEP and no data has been sent."

SWS LinSM

=====

no changes required

TPS System Template

=====

1) Appendix C: Remove the rule of the parameter LinIfStartupState
–Last change on issue 73095 comment 46–

BW-C-Level:

Application	Specification	Bus
1	4	4

1.18 Specification Item SWS_LinIf_00539

Trace References:

none

Content:

If **default development** error detection is enabled and an invalid value for Channel is given, the function LinIf_SetTrcvMode shall report LINIF_E_NONEXISTENT_CHANNEL to the default error tracer.

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_yyyyyy]

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_yyyyyy]

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_yyyyyy]

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_yyyyyy]

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

1.19 Specification Item SWS_LinIf_00540

Trace References:

none

Content:

If **default development** error detection is enabled and an invalid mode is requested for TransceiverMode, the function LinIf_SetTrcvMode shall report LINIF_E_TRCV_INV_MODE to the default error tracer.

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 "developement 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 developement 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"

- 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

1.20 Specification Item SWS_LinIf_00546

Trace References:

none

Content:

If **default development** error detection is enabled and an invalid value for Channel is given, the function LinIf_GetTrcvMode shall report LINIF_E_NONEXISTENT_CHANNEL to the default error tracer.

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 "development 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_yyyyyy]

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_yyyyyy]

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_yyyyyy]

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"

- 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	"AU-
	TOSAR_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	"AU-
	TOSAR_SWS_DefaultErrorTracer"		

SWS_FlexRayNetworkManagement:

- In chapter "3.3 Related AUTOSAR documents":

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

Rename	"AUTOSAR_SWS_DevelopmentErrorTracer"	to	"AU-
	TOSAR_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

1.21 Specification Item SWS_LinIf_00549

Trace References:

none

Content:

If **default development** error detection is enabled and an invalid value for Channel is given, the function LinIf_GetTrcvWakeupReason shall report LINIF_E_NONEXISTENT_CHANNEL to the default error tracer.

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 renamed "developement 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 "development 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"
- 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

1.22 Specification Item SWS_LinIf_00563

Trace References:

none

Content:

If **default development** error detection is enabled and an invalid channel is given, the function LinIf_ScheduleRequest shall raise the development error code LINIF_E_NONEXISTENT_CHANNEL.

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 renamed "developement 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 developement 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"

- 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

1.23 Specification Item SWS_LinIf_00564

Trace References:

none

Content:

If **default** **development** error detection is enabled and an invalid channel is given, the function LinIf_GotoSleep shall raise the development error code LINIF_E_NONEXISTENT_CHANNEL.

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 "developement 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 developement 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_yyyyyy]"
- 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_yyyyyy]"
- 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_yyyyyy]"
- 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_yyyyyy]"
- 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"
- 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

1.24 Specification Item SWS_LinIf_00565

Trace References:

none

Content:

If **default** **development** error detection is enabled and an invalid channel is given, the function LinIf_Wakeup shall raise the development error code LINIF_E_NONEXISTENT_CHANNEL.

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 renamed "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 "development 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"
 - 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

1.25 Specification Item SWS_LinIf_00566

Trace References:

none

Content:

If **default development** error detection is enabled and the parameter WakeupSource has an invalid value, the function LinIf_CheckWakeup shall raise the development error code LINIF_E_PARAM_WAKEUPSOURCE and return **E_NOT_OK**.

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

- 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 "development 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"
- 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

1.26 Specification Item SWS_LinIf_00567

Trace References:

none

Content:

If **default development** error detection is enabled and an invalid schedule table is given or the corresponding channel is in the state LINIF_CHANNEL_SLEEP, the function LinIf_ScheduleRequest shall raise the development error code LINIF_E_SCHEDULE_REQUEST_ERROR.

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 renamed "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_yyyyyy]

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_yyyyyy]

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_yyyyyy]

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_yyyyyy]

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

1.27 Specification Item SWS_LinIf_00570

Trace References:

none

Content:

If **default development** error detection is enabled and the parameter PduInfoPtr has an invalid value, the function LinIf_Transmit shall raise the development error code LINIF_E_PARAM_POINTER.

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 "development 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"

- 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

1.28 Specification Item SWS_LinIf_00571

Trace References:

none

Content:

If **default** **development** error detection is enabled and the parameter TransceiverModePtr has an invalid value, the function LinIf_GetTrcvMode shall raise the development error code LINIF_E_PARAM_POINTER.

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 "development error tracer"!)

Blueprint/Example:

- sub chapter is now called "7.x Default errors"

- "[SWS_xxx_yyyy]"

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_yyyyyy]

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_yyyyyy]

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_yyyyyy]

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"

- 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

1.29 Specification Item SWS_LinIf_00572

Trace References:

none

Content:

If **default development** error detection is enabled and the current mode is not LIN-TRCV_TRCV_MODE_NORMAL, the function LinIf_GetTrcvWakeupReason shall report LINIF_E_TRCV_NOT_NORMAL to the default error tracer.

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 renamed "developement 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 "development error tracer"!)

Blueprint/Example:

- sub chapter is now called "7.x Default errors"

- "[SWS_xxx_yyyyyy]

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_yyyyyy]

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_yyyyyy]

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_yyyyyy]

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"
- 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

1.30 Specification Item SWS_LinIf_00573

Trace References:

none

Content:

If **default development** error detection is enabled and the parameter TrcvWuReasonPtr has an invalid value, the function LinIf_GetTrcvWakeupReason shall raise the development error code LINIF_E_PARAM_POINTER.

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 renamed "developement 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 developement 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"

- 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

1.31 Specification Item SWS_LinIf_00574

Trace References:

none

Content:

If **default development** error detection is enabled and the parameter PduInfoPtr has an invalid value, the function LinTp_Transmit shall raise the development error code LINIF_E_PARAM_POINTER.

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 renamed "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 "development 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"

- 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

1.32 Specification Item SWS_LinIf_00575

Trace References:

none

Content:

If **default development** error detection is enabled and the parameter TxPduld has an invalid value, the function LinIf_Transmit shall raise the development error code LINIF_E_PARAMETER.

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 renamed "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 "development 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"
 - 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

1.33 Specification Item SWS_LinIf_00576

Trace References:

none

Content:

If **default development** error detection is enabled and the parameter TxPduld has an invalid value, the function LinTp_Transmit shall raise the development error code LINIF_E_PARAMETER.

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 "developement 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 developement 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"
- 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

1.34 Specification Item SWS_LinIf_00577

Trace References:

none

Content:

If **default development** error detection is enabled and the parameter TxPduld has an invalid value, the function LinTp_CancelTransmit shall raise the development error **code** LINIF_E_PARAMETER.

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 renamed "developement 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 developement 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"

- 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

1.35 Specification Item SWS_LinIf_00578

Trace References:

none

Content:

If **default development** error detection is enabled and the parameter id has an invalid value, the function LinTp_ChangeParameter shall raise the development error code LINIF_E_PARAMETER.

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 "development 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_yyyyyy]

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"

- 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

1.36 Specification Item SWS_LinIf_00594

Trace References:

none

Content:

If **default development** error detection is enabled and an invalid value for TxPduld is given, the function LinIf_CancelTransmit shall report LINIF_E_PARAMETER to the default error tracer.

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 "development error tracer"!)

Blueprint/Example:

- sub chapter is now called "7.x Default errors"

- "[SWS_xxx_yyyy]"

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_yyyyyy]

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_yyyyyy]

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_yyyyyy]

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"

- 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

1.37 Specification Item SWS_LinIf_00595

Trace References:

none

Content:

If **default development** error detection is enabled and an invalid value for Channel is given, the function LinIf_SetTrcvWakeupMode shall report LINIF_E_NONEXISTENT_CHANNEL to the default error tracer.

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 renamed "developement 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 "development 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"
- 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

1.38 Specification Item SWS_LinIf_00596

Trace References:

none

Content:

If **default development** error detection is enabled and an invalid value for Lin TrcvWakeupMode is given, the function LinIf_SetTrcvWakeupMode shall report LINIF_E_PARAMETER to the default error tracer.

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 "developement 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 developement 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"

- 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

1.39 Specification Item SWS_LinIf_00627

Trace References:

none

Content:

If **default development** error detection is enabled and the parameter RxPduld has an invalid value, the function LinTp_CancelReceive shall raise the development error code LINIF_E_PARAMETER.

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 renamed "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 "development 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"

- 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

1.40 Specification Item SWS_LinIf_00639

Trace References:

none

Content:

If **default development** error detection is enabled and the parameter versioninfo has an invalid value, the function LinTp_GetVersionInfo shall raise the development error **code** LINIF_E_PARAM_POINTER.

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 renamed "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 "development 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"
 - 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

1.41 Specification Item SWS_LinIf_00640

Trace References:

none

Content:

If **default development** error detection is enabled and the parameter versioninfo has an invalid value, the function LinIf_GetVersionInfo shall raise the development error code LINIF_E_PARAM_POINTER.

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 "development 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"
- 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

1.42 Specification Item SWS_LinIf_00717

Trace References:

none

Content:

If **default development** error detection is enabled and the parameter WakeupSource has an invalid value, the function LinIf_WakeupConfirmation shall raise the development error code LINIF_E_PARAM_WAKEUPSOURCE.

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 renamed "developement 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 developement 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"

- 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

1.43 Specification Item SWS_LinIf_00729

Trace References:

SRS_BSW_00452, SRS_BSW_00385, SRS_BSW_00327

Content:

The following Table 2 shows the available error codes, which shall be detected by the LIN Interface and the LIN TP:

Type or error	Related error code	Value [hex]
LIN frame error detected	LINIF_E_RESPONSE	0x60
Slave did not answer on a node configuration request	LINIF_E_NC_NO_RESPONSE	0x61

Table [REF] - Runtime Error codes for 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