

<b>Document Title</b>	SWS_FlexRayTransceiverDriver: Complete Change Documentation 4.3.0 - 4.3.1
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1.32	Specification Item SWS_FrTrcv_00462	107
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# 1 SWS\_FlexRayTransceiverDriver

## 1.1 Specification Item SWS\_FrTrcv\_00085

### Trace References:

none

### Content:

#### Development Error Types

Type or error	Related error code	Value [hex]
API service called with wrong parameter	FRTRCV_E_FR_INVALID_TRCVIDX FlexRay transceiver index out of range	0x01
API service called with wrong parameter	FRTRCV_E_FR_INVALID_BRANCHIDX FlexRay transceiver branch index out of range	0x02
API Service used without initialization	FRTRCV_E_FR_UNINIT	0x10
API service called in wrong transceiver operation mode	FRTRCV_E_FR_TRCV_NOT_STANDBY FRTRCV_E_FR_TRCV_NOT_NORMAL FRTRCV_E_FR_TRCV_NOT_SLEEP FRTRCV_E_FR_TRCV_NOT_RECEIVEONLY	0x11 0x12 0x13 0x14
API service called passing a NULL pointer as a parameter	FRTRCV_E_PARAM_POINTER	0x15
No/incorrect communication to transceiver	FRTRCV_E_FR_NO_CONTROL_TRCV	0x16
Invalid configuration set selection	FRTRCV_E_INIT_FAILED	0x17

### 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

## 1.2 Specification Item SWS\_FrTrcv\_00275

### Trace References:

none

### Content:

If **default development** error detection for the module FrTrcv is enabled: If the parameter FrTrcv\_TrcvIdx is not within the allowed range, the function FrTrcv\_SetTransceiverMode shall raise development error FRTRCV\_E\_FR\_INVALID\_TRCVIDX.

### 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\_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\_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

### 1.3 Specification Item SWS\_FrTrcv\_00276

#### Trace References:

none

#### Content:

If **default error detection for the module FrTrcv is enabled**: If the **the** mode transition fails (SWS\_FrTrcv\_00452), the function FrTrcv\_SetTransceiverMode shall raise the following **development runtime** error:

- FRTRCV\_E\_FR\_TRCV\_NOT\_STANDBY:

Transition to FRTRCV\_TRCVMODE\_STANDBY failed

- FRTRCV\_E\_FR\_TRCV\_NOT\_NORMAL:

Transition to FRTRCV\_TRCVMODE\_NORMAL failed

- FRTRCV\_E\_FR\_TRCV\_NOT\_SLEEP:

Transition to FRTRCV\_TRCVMODE\_SLEEP failed

- FRTRCV\_E\_FR\_TRCV\_NOT\_RECEIVEONLY:

Transition to FRTRCV\_TRCVMODE\_RECEIVEONLY failed

#### 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 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

## 1.4 Specification Item SWS\_FrTrcv\_00277

### Trace References:

none

### Content:

If **default development** error detection for the module FrTrcv is enabled: if the transceiver has not been initialized, the function FrTrcv\_SetTransceiverMode shall raise development error FRTRCV\_E\_FR\_UNINIT.

**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

## 1.5 Specification Item SWS\_FrTrcv\_00278

**Trace References:**

none

**Content:**

In case of a fault during transceiver access, the function FrTrcv\_SetTransceiverMode shall raise **development runtime** error FRTRCV\_E\_FR\_NO\_CONTROL\_TRCV **if default error detection for the module FrTrcv is enabled** (see also SWS\_FrTrcv\_00237).

**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.
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\*\*\* 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\_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

## 1.6 Specification Item SWS\_FrTrcv\_00279

**Trace References:**

none

**Content:**

If **default development** error detection for the module FrTrcv is enabled: if the parameter FrTrcv\_TrcvIdx is out of range, the function FrTrcv\_GetTransceiverMode shall raise the development error FRTRCV\_E\_FR\_INVALID\_TRCVIDX.

**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

## 1.7 Specification Item SWS\_FrTrcv\_00280

**Trace References:**

none



## Content:

If **default development** error detection for the module FrTrcv is enabled: if the transceiver has not been initialized, the function FrTrcv\_GetTransceiverMode shall raise the development error FRTRCV\_E\_FR\_UNINIT.

## 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

## 1.8 Specification Item SWS\_FrTrcv\_00281

**Trace References:**

SRS\_Fr\_05151

**Content:**

In case of a fault during transceiver access, the function FrTrcv\_GetTransceiverMode shall raise the **development runtime** error FRTRCV\_E\_FR\_NO\_CONTROL\_TRCV **if default error detection for the module FrTrcv is enabled** (see also SWS\_FrTrcv\_00237).

**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

## 1.9 Specification Item SWS\_FrTrcv\_00282

### Trace References:

none

### Content:

If **default development** error detection of the module FrTrcv is enabled: if the parameter FrTrcv\_TrcvIdx is out of range, the function FrTrcv\_GetTransceiverWUReason shall raise the development error FRTRCV\_E\_FR\_INVALID\_TRCVIDX.

### 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

## 1.10 Specification Item SWS\_FrTrcv\_00283

### Trace References:

none

### Content:

If **default development** error detection of the module FrTrcv is enabled: if the transceiver has not been initialized, the function FrTrcv\_GetTransceiverWUReason shall raise the development error FRTRCV\_E\_FR\_UNINIT.

### 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\_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

## 1.11 Specification Item SWS\_FrTrcv\_00284

**Trace References:**

none

**Content:**

In case of a fault during transceiver access, the function FrTrcv\_GetTransceiverWURReason shall raise **development runtime** error FRTRCV\_E\_FR\_NO\_CONTROL\_TRCV **if default error detection for the module FrTrcv is enabled** (see also SWS\_FrTrcv\_00237).

**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 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

## 1.12 Specification Item SWS\_FrTrcv\_00295

### Trace References:

none

### Content:

The FrTrcv module shall check for bus errors and report them to DEM executing Dem\_SetEventStatus(FRTRCV\_E\_FR\_BUSERROR\_TRCV<TrcvIdx>\_<TrcvIdx>, DEM\_EVENT\_STATUS\_PREFAILED).

## 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

## 1.13 Specification Item SWS\_FrTrcv\_00304

### Trace References:

none

### Content:

If **default development** error detection is enabled for the module FrTrcv: if the parameter FrTrcv\_Trvcldx is out of range, the function FrTrcv\_ClearTransceiverWakeup shall raise the development error code FRTRCV\_E\_FR\_INVALID\_TRCVIDX.

### 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\_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

## 1.14 Specification Item SWS\_FrTrcv\_00305

**Trace References:**

none

**Content:**

If **default development** error detection is enabled for the module FrTrcv: if the transceiver has not been initialized, the function FrTrcv\_ClearTransceiverWakeup shall raise the development error code FRTRCV\_E\_FR\_UNINIT.

**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

## 1.15 Specification Item SWS\_FrTrcv\_00306

### Trace References:

SRS\_Fr\_05151

### Content:

In case of a fault during transceiver access, the function FrTrcv\_ClearTransceiverWakeup shall raise the **development runtime** error FRTRCV\_E\_FR\_NO\_CONTROL\_TRCV **if default error detection for the module FrTrcv is enabled** (see also SWS\_FrTrcv\_00237).

## 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 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\_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

## 1.16 Specification Item SWS\_FrTrcv\_00308

**Trace References:**

none

**Content:**

If **default development** error detection of the module FrTrcv is enabled: if any of the configured transceivers is not initialized, the function FrTrcv\_MainFunction shall raise development error FRTRCV\_E\_FR\_UNINIT.

**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

## 1.17 Specification Item SWS\_FrTrcv\_00312

### Trace References:

none

### Content:

If **default development** error detection of module FrTrcv is enabled: if the parameter FrTrcv\_TrcvIdx is out of range, the function FrTrcv\_CheckWakeupByTransceiver shall raise development error FRTRCV\_E\_FR\_INVALID\_TRCVIDX.

### 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

## 1.18 Specification Item SWS\_FrTrcv\_00313

### Trace References:

none

### Content:

If **default** **development** error detection of module FrTrcv is enabled: if the FrTrcv module is not initialized, the function FrTrcv\_CheckWakeupByTransceiver shall raise development error FRTRCV\_E\_FR\_UNINIT.

### 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 "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\_FrTrcv\_00354

**Trace References:**

none

**Content:**

In case of faults of the transceiver hardware, the FlexRay Transceiver Driver shall raise a **development runtime** error FRTRCV\_E\_FR\_NO\_CONTROL\_TRCV if default error detection for the module FrTrcv 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:

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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 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

## 1.20 Specification Item SWS\_FrTrcv\_00384

### Trace References:

none

### Content:

If an error (e.g. the state of the ERRN pin is active low) is detected the module shall execute Dem\_SetEventStatus( FRTRCV\_E\_FR\_ERRN\_TRCV<TrcvIdx>\_<TrcvIdx>, DEM\_EVENT\_STATUS\_PREFAILED).

In the above description, <TrcvIdx> represents the transceiver index.

### 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

## 1.21 Specification Item SWS\_FrTrcv\_00390

**Trace References:**

none

**Content:**

If the configuration parameter FrTrcvErrorCheckInInit is set true, the function FrTrcv\_Init shall check state of ERRN to detect hardware failure. If an error is detected, FrTrcv\_Init shall raise a production error FRTRCV\_E\_FR\_ERRN\_TRCV<TrcvIdx>\_<TrcvIdx>.

**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

## 1.22 Specification Item SWS\_FrTrcv\_00395

**Trace References:**

none

**Content:**

If an error is not detected (e.g. the state of the ERRN pin is passive high) the module shall execute Dem\_SetEventStatus( FRTRCV\_E\_FR\_ERRN\_TRCV<TrcvIdx>\_<TrcvIdx>, DEM\_EVENT\_STATUS\_PREPASSED).

In the above descriptions, <TrcvIdx> represents the transceiver index.

**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

## 1.23 Specification Item SWS\_FrTrcv\_00396

**Trace References:**

none

## Content:

When a NULL pointer is passed as a parameter value of FrTrcv\_GetVersionInfo, the development error FRTRCV\_E\_PARAM\_POINTER shall be reported to DET shall be reported to DET if **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 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

## 1.24 Specification Item SWS\_FrTrcv\_00397

**Trace References:**

none

**Content:**

When the caller provides a NULL pointer as a parameter value to the API

FrTrcv\_GetTransceiverMode, the return value shall be E\_NOT\_OK and the development error FRTRCV\_E\_PARAM\_POINTER shall be reported to DET if 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 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"

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 "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\_FrTrcv\_00398

### Trace References:

none

### Content:

When the caller provides a NULL pointer as a parameter value to the API FrTrcv\_GetTransceiverWUReason, the development error FRTRCV\_E\_PARAM\_POINTER shall be reported to DET if **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 "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

## 1.26 Specification Item SWS\_FrTrcv\_00424

### Trace References:

none

### Content:

Det.h – FrTrcv.c shall include Det.h **only if default error detection is turned on.**

### 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

## 1.27 Specification Item SWS\_FrTrcv\_00437

#### Trace References:

none

#### Content:

In case of a fault during transceiver access, the initialization process shall be restarted from the beginning. It shall be retried until the retry counter exceeds the number specified by FrTrcvRetryCountInInit. If the process doesn't succeed, the function FrTrcv\_Init shall raise a **development runtime** error FRTRCV\_E\_FR\_NO\_CONTROL\_TRCV **if default error detection for the module FrTrcv is enabled** (see also SWS\_FrTrcv\_00237).

#### 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 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

## 1.28 Specification Item SWS\_FrTrcv\_00439

### Trace References:

none

### Content:

When the caller provides a NULL pointer as a parameter value to the API FrTrcv\_GetTransceiverError the return value shall be E\_NOT\_OK and the development error FRTRCV\_E\_PARAM\_POINTER shall be reported to DET if 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 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

## 1.29 Specification Item SWS\_FrTrcv\_00459

**Trace References:**

none

**Content:**

If **default development** error detection of module FrTrcv is enabled: if the FrTrcv module is not initialized, the function FrTrcv\_GetTransceiverError shall raise development error FRTRCV\_E\_FR\_UNINIT.

**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

## 1.30 Specification Item SWS\_FrTrcv\_00460

**Trace References:**

none

**Content:**

If **default development** error detection of module FrTrcv is enabled: if the parameter FrTrcv\_TrcvIdx is out of range, the function FrTrcv\_GetTransceiverError shall raise development error FRTRCV\_E\_FR\_INVALID\_TRCVIDX.

**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

## 1.31 Specification Item SWS\_FrTrcv\_00461

### Trace References:

none

## Content:

If **default development** error detection of module FrTrcv is enabled: if the parameter FrTrcv\_BranchIdx is out of range (ECUC\_FrTrcv\_00357), the function FrTrcv\_GetTransceiverError shall raise development error FRTRCV\_E\_FR\_INVALID\_BRANCHIDX.

## 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\_FrTrcv\_00462

**Trace References:**

none

**Content:**

If **default development** error detection of module FrTrcv is enabled: if the FrTrcv module is not initialized, the function FrTrcv\_DisableTransceiverBranch shall raise development error FRTRCV\_E\_FR\_UNINIT.

**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

## 1.33 Specification Item SWS\_FrTrcv\_00463

### Trace References:

none

### Content:

If **default development** error detection of module FrTrcv is enabled: if the parameter FrTrcv\_TrcvIdx is out of range, the function FrTrcv\_DisableTransceiverBranch shall raise development error FRTRCV\_E\_FR\_INVALID\_TRCVIDX.

### 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

## 1.34 Specification Item SWS\_FrTrcv\_00464

### Trace References:

none

### Content:

If **default** **development** error detection of module FrTrcv is enabled: if the parameter FrTrcv\_BranchIdx is out of range (ECUC\_FrTrcv\_00357), the function FrTrcv\_DisableTransceiverBranch shall raise development error FRTRCV\_E\_FR\_INVALID\_BRANCHIDX.

### 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\_FrTrcv\_00465

**Trace References:**

none

**Content:**

If **default development** error detection of module FrTrcv is enabled: if the FrTrcv module is not initialized, the function FrTrcv\_EnableTransceiverBranch shall raise development error FRTRCV\_E\_FR\_UNINIT.

**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

## 1.36 Specification Item SWS\_FrTrcv\_00466

### Trace References:

none

### Content:

If **default development** error detection of module FrTrcv is enabled: if the parameter FrTrcv\_TrcvIdx is out of range, the function FrTrcv\_EnableTransceiverBranch shall raise development error FRTRCV\_E\_FR\_INVALID\_TRCVIDX.



## 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

## 1.37 Specification Item SWS\_FrTrcv\_00467

**Trace References:**

none

**Content:**

If **default** **development** error detection of module FrTrcv is enabled: if the parameter FrTrcv\_BranchIdx is out of range (ECUC\_FrTrcv\_00357), the function FrTrcv\_EnableTransceiverBranch shall raise development error FRTRCV\_E\_FR\_INVALID\_BRANCHIDX.

**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"

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

## 1.38 Specification Item SWS\_FrTrcv\_00472

### Trace References:

none

### Content:

If a no bus error is detected, the module shall execute Dem\_SetEventStatus(FRTRCV\_E\_FR\_BUSERROR\_TRCV<TrcvIdx>\_<TrcvIdx>, DEM\_EVENT\_STATUS\_PREPASSED).

### 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

## 1.39 Specification Item SWS\_FrTrcv\_00488

**Trace References:**

none



## Content:

Error Name:	FRTRCV_E_FR <b>BUSERRORROR</b> <b>BUSERROR</b> _TRCV_<TrcvIdx>	
Short Description:	Error Status of Class B serial peripheral interface controlled transceiver where TrcvIdx is the transceiver index.	
Long Description:	Error Status of Class B serial peripheral interface controlled transceiver where TrcvIdx is the transceiver index.	
Detection Criteria:	Fail	Bus error, i.e. if any of bit 1...9 is set for transceivers according to class B of [5], see also SWS_FrTrcv_00458
	Pass	No Bus error, i.e. all of bit 1...9 are cleared for transceivers according to class B of [5], see also SWS_FrTrcv_00458
Secondary Parameters:	Fail: Unexpected HALT of the FlexRay communication controller. Pass: NORMAL_ACTIVE of the FlexRay communication controller (e.g. FRIF_ONLINE). In case of bus short circuit, non-cold start FlexRay nodes will not transmit, so in this case the pass information from the transceiver driver alone is not sufficient to ensure there is no short circuit.	
Time Required:	Consider the pipeline delay and schedule of the serial peripheral interface. Fault detection depends on hardware design and on frame transmission, refer to [REF] for details.	
Monitor Frequency	On unexpected HALT of the FlexRay communication controller On achieving NORMAL_ACTIVE of the FlexRay communication controller	

## 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:

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### Chapter 8.6.1 Optional Interfaces:

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

#### SWS\_LinIf:

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SWS\_LinIf\_00359: add Det\_ReportRuntimeError

#### SWS\_UdpNm:

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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

## 1.40 Specification Item SWS\_FrTrcv\_00493

### Trace References:

none

### Content:

### 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