

<b>Document Title</b>	SWS_TimeService: Complete Change Documentation 4.3.0 - 4.3.1
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# 1 SWS\_TimeService

## 1.1 Specification Item SWS\_Tm\_00008

### Trace References:

SRS\_BSW\_00369, SRS\_BSW\_00323

### Content:

If **default development** error detection for the Time Service module is enabled:

If the pointer parameter is a null pointer, the ResetTimer functions shall raise the error TM\_E\_PARAM\_POINTER and shall return E\_NOT\_OK.

### 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

## 1.2 Specification Item SWS\_Tm\_00012

**Trace References:**

SRS\_BSW\_00369, SRS\_BSW\_00323

**Content:**

If **default development** error detection for the Time Service module is enabled:

If a pointer parameter is a null pointer, the GetTimeSpan functions shall raise the error TM\_E\_PARAM\_POINTER and shall return E\_NOT\_OK.

**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

### 1.3 Specification Item SWS\_Tm\_00016

**Trace References:**

SRS\_BSW\_00323

**Content:**

If **default development** error detection for the Time Service module is enabled:

If the value of the parameter TimeValue is greater than 0xFFFFFFFF, the ShiftTimer functions with range 24bit shall raise the error TM\_E\_PARAM\_VALUE.

### 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

## 1.4 Specification Item SWS\_Tm\_00018

**Trace References:**

SRS\_BSW\_00323

**Content:**

If **default development** error detection for the Time Service module is enabled:

If the pointer parameter is a null pointer, the ShiftTimer functions shall raise the error TM\_E\_PARAM\_POINTER.

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

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

**Problem description:**

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

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

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

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

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

The parameter switches on/off the development error detection. The DET does not need to be detected and can be present even when the parameter is set to false.

**Agreed solution:**

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

Blueprint/Example:

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

The correct text would be:

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

Solution for SWS\_RTE:

- SWS\_RTE —
- Change 4.8 Default errors to 4.8 Development errors
- Change "Errors which can occur at runtime in the RTE are classified as default errors" to "Errors which can occur at runtime in the RTE are classified as development errors"
- Remove [SWS\_Rte\_07676]

- Change [SWS\_RTE\_06611]"If a violation is detected the RTE shall report a default error to the DET." to "If a violation is detected the RTE shall report a development error to the DET."

- Change [SWS\_Rte\_06631]

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

#### SRS\_Libraries:

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

#### SRS\_SPALGeneral:

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

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

#### SRS\_FlashTest:

- In chapter "6.1 Functional Requirements": Rename "Development Error Tracer" to "Default Error Tracer"

- In chapter "7 References":

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

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

#### SWS\_MFXLibrary:

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

#### SWS\_MemoryAbstractionInterface:

- In chapter "3.1 Input documents":

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

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

**SWS\_FlexRayNetworkManagement:**

- In chapter "3.3 Related AUTOSAR documents":

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

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

**SWS\_CANStateManager:**

- In chapter "3.1 Input documents": Rename "AU-

TOSAR\_SWS\_DevelopmentErrorTracer" to "AUTOSAR\_SWS\_DefaultErrorTracer"

**SWS\_PDURouter:**

- In chapter "3.1 Input documents": Rename "AU-

TOSAR\_SWS\_DevelopmentErrorTracer" to "AUTOSAR\_SWS\_DefaultErrorTracer"

**SWS\_EEPROMDriver:**

- In chapter "3.1 Input documents": Rename "AU-

TOSAR\_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\_Tm\_00021

**Trace References:**

SRS\_BSW\_00323

**Content:**

If **default development** error detection for the Time Service module is enabled:

If a pointer parameter is a null pointer, the SyncTimer functions shall raise the error TM\_E\_PARAM\_POINTER.

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

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

**Problem description:**

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

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

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

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

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

The parameter switches on/off the development error detection. The DET does not need to be detected and can be present even when the parameter is set to false.

#### **Agreed solution:**

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

Blueprint/Example:

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

- "[SWS\_xxx\_yyyyy]

In case default error detection is enabled for the xxxx module: The xxxx module shall check API parameters for validity and report detected errors to the DET. ()"

- "[SWS\_xxx\_yyyyy]

If default error detection is enabled: the function shall check that the service xxx\_Init was previously called. If the check fails, the function shall raise the default error XXX\_E\_NOT\_INITIALIZED otherwise (if DET is disabled) return E\_NOT\_OK. ()"

- "In case default errors are enabled,..."

- "module raises the Default error XXX\_E\_TRANSITION"

- "The DET provides services to store default errors"

...

The correct text would be:

- sub chapter is called "7.x Development errors"

- "[SWS\_xxx\_yyyyy]

In case development error detection is enabled for the xxxx module: The xxxx module shall check API parameters for validity and report detected development errors to the DET. ()"

- "[SWS\_xxx\_yyyyy]

If development error detection is enabled: the function shall check that the service xxx\_Init was previously called. If the check fails, the function shall raise the development error XXX\_E\_NOT\_INITIALIZED otherwise (if DET is disabled) return E\_NOT\_OK. ()"

- "In case development errors are enabled,..."

- "module raises the development error XXX\_E\_TRANSITION"

- "The DET provides services to store development errors"

Solution for SWS\_RTE:

– SWS\_RTE —

- Change 4.8 Default errors to 4.8 Development errors

- Change "Errors which can occur at runtime in the RTE are classified as default errors" to "Errors which can occur at runtime in the RTE are classified as development errors"

- Remove [SWS\_Rte\_07676]

- Change [SWS\_RTE\_06611]"If a violation is detected the RTE shall report a default error to the DET." to "If a violation is detected the RTE shall report a development error to the DET."

- Change [SWS\_Rte\_06631]

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

SRS\_Libraries:

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

SRS\_SPALGeneral:

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

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

SRS\_FlashTest:

- In chapter "6.1 Functional Requirements": Rename "Development Error Tracer" to "Default Error Tracer"

- In chapter "7 References":

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

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

**SWS\_MFXLibrary:**

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

**SWS\_MemoryAbstractionInterface:**

- In chapter "3.1 Input documents":

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

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

**SWS\_FlexRayNetworkManagement:**

- In chapter "3.3 Related AUTOSAR documents":

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

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

**SWS\_CANStateManager:**

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

**SWS\_PDURouter:**

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

**SWS\_EEPROMDriver:**

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

–Last change on issue 73570 comment 47–

**BW-C-Level:**

Application	Specification	Bus
1	1	1

## 1.6 Specification Item SWS\_Tm\_00028

### Trace References:

none

### Content:

The following errors shall be detectable by the Time Service module depending on its build version (development / production):

Type of error	Relevance	Related error code	Value [hex]
API parameter checking: invalid pointer	Development	TM_E_PARAM_POINTER	0x01
API parameter checking: invalid value	Development	TM_E_PARAM_VALUE	0x02
Access to underlying hardware timer failed	Development	TM_E_HARDWARE_TIMER	0x03

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

- RfC #59085: Rollout of 'Runtime errors'

#### Problem description:

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

#### Agreed solution:

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

#### Notes:

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

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

SWS\_CanNm:

Chapter 8.6.1 Optional Interfaces:

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

**SWS\_LinIf:**

SWS\_LinIf\_00359: add Det\_ReportRuntimeError

**SWS\_UdpNm:**

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

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

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

–Last change on issue 59085 comment 88–

**BW-C-Level:**

Application	Specification	Bus
1	4	1

## 1.7 Specification Item SWS\_Tm\_00037

**Trace References:**

SRS\_BSW\_00323

**Content:**

If **default development** error detection for the Time Service module is enabled:

If the parameter VersionInfoPtr is a null pointer, the function Tm\_GetVersionInfo shall raise the error TM\_E\_PARAM\_POINTER.

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

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

**Problem description:**

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

This change was most of the time done automatically and unfortunately re-named "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

## 1.8 Specification Item SWS\_Tm\_00057

**Trace References:**

SRS\_Tm\_00002

**Content:**

API function	Description
Det_ReportRuntimeError	Service to report runtime errors. If a callout has been configured then this callout shall be called.
Gpt_GetPredefTimerValue	Delivers the current value of the desired GPT Predef Timer.

**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

## 1.9 Specification Item SWS\_Tm\_00061

**Trace References:**

SRS\_BSW\_00300, SRS\_BSW\_00346

**Content:**

The Tm.c file shall include Tm.h, Tm\_MemMap.h, SchM\_Tm.h, Gpt.h and **optionally** Det.h if **default error detection is switched 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 "development error" to "default error".

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

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

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

The parameter switches on/off the development error detection. The DET does not need to be detected and can be present even when the parameter is set to false.

**Agreed solution:**

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

Blueprint/Example:

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

- "[SWS\_xxx\_yyyyy]

In case default error detection is enabled for the xxxx module: The xxxx module shall check API parameters for validity and report detected errors to the DET. ()"

- "[SWS\_xxx\_yyyyy]

If default error detection is enabled: the function shall check that the service xxx\_Init was previously called. If the check fails, the function shall raise the default error XXX\_E\_NOT\_INITIALIZED otherwise (if DET is disabled) return E\_NOT\_OK. ()"

- "In case default errors are enabled,..."

- "module raises the Default error XXX\_E\_TRANSITION"

- "The DET provides services to store default errors"

...

The correct text would be:

- sub chapter is called "7.x Development errors"

- "[SWS\_xxx\_yyyyy]

In case development error detection is enabled for the xxxx module: The xxxx module shall check API parameters for validity and report detected development errors to the DET. ()"

- "[SWS\_xxx\_yyyyy]

If development error detection is enabled: the function shall check that the service xxx\_Init was previously called. If the check fails, the function shall raise the development error XXX\_E\_NOT\_INITIALIZED otherwise (if DET is disabled) return E\_NOT\_OK. ()"

- "In case development errors are enabled,..."

- "module raises the development error XXX\_E\_TRANSITION"

- "The DET provides services to store development errors"

Solution for SWS\_RTE:

- SWS\_RTE —

- Change 4.8 Default errors to 4.8 Development errors

- Change "Errors which can occur at runtime in the RTE are classified as default errors" to "Errors which can occur at runtime in the RTE are classified as development errors"

- 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."

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\_Tm\_00064

**Trace References:**

none

**Content:**

If **default error detection for the Time Service module is enabled:**

If the underlying GPT driver service returns E\_NOT\_OK, the functions ResetTimer, GetTimeSpan and BusyWait shall raise the error TM\_E\_HARDWARE\_TIMER.

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

- RfC #59085: Rollout of 'Runtime errors'

**Problem description:**

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

**Agreed solution:**

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

**Notes:**

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

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

SWS\_CanNm:

\_\_\_\_\_

Chapter 8.6.1 Optional Interfaces:

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

SWS\_LinIf:

\_\_\_\_\_

SWS\_LinIf\_00359: add Det\_ReportRuntimeError

SWS\_UdpNm:

\_\_\_\_\_

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

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

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

–Last change on issue 59085 comment 88–

**BW-C-Level:**

Application	Specification	Bus
1	4	1

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

**Problem description:**

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

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

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

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

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

The parameter switches on/off the development error detection. The DET does not need to be detected and can be present even when the parameter is set to false.

#### **Agreed solution:**

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

Blueprint/Example:

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

- "[SWS\_xxx\_yyyyy]

In case default error detection is enabled for the xxxx module: The xxxx module shall check API parameters for validity and report detected errors to the DET. ()"

- "[SWS\_xxx\_yyyyy]

If default error detection is enabled: the function shall check that the service xxx\_Init was previously called. If the check fails, the function shall raise the default error XXX\_E\_NOT\_INITIALIZED otherwise (if DET is disabled) return E\_NOT\_OK. ()"

- "In case default errors are enabled,..."

- "module raises the Default error XXX\_E\_TRANSITION"

- "The DET provides services to store default errors"

...

The correct text would be:

- sub chapter is called "7.x Development errors"

- "[SWS\_xxx\_yyyyy]

In case development error detection is enabled for the xxxx module: The xxxx module shall check API parameters for validity and report detected development errors to the DET. ()"

- "[SWS\_xxx\_yyyy]
- 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\_Tm\_00067

### Trace References:

none

### Content:

Type of error	Relevance	Related error code	Value [hex]
Access to underlying hardware timer failed	Runtime	TM_E_HARDWARE_TIMER	0x03

### 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