

Document Title	SWS_PortDriver: Complete Change Documentation 4.3.0 - 4.3.1
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1 SWS_PortDriver

1.1 Specification Item SWS_Port_00077

Trace References:

SRS_SPAL_12448

Content:

If **default development** error detection is enabled the Port Driver module shall check the function parameters in the order in which they are passed and skip further parameter checking if one check fails.

Example: For the function Port_SetPinDirection, the first parameter to be passed is the pin ID. This parameter shall identify the relevant port pin of the MCU's port. The second parameter passed corresponds to the direction to change on the port pin.

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. ()"

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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_Port_00087

Trace References:

SRS_BSW_00323, SRS_BSW_00406

Content:

If **default development** error detection is enabled and the Port Driver module has detected an error, the desired functionality shall be skipped and the requested service shall return without any action.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

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Problem description:

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Blueprint/Example:

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- "[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. ()"

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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. ()"

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The correct text would be:

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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,..."
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- "The DET provides services to store development errors"

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- 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"

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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:

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SWS_EEPROMDriver:

- In chapter "3.1 Input documents": Rename "AUTOSAR_SWS_DevelopmentErrorTracer" to "AUTOSAR_SWS_DefaultErrorTracer"

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