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1 SWS_RAMTest

1.1 Specification Item SWS_RamTst_00006

Trace References:

SRS_BSW_00406

Content:

For the type RamTst_ExecutionStatusType, the enumeration value RAMTST_EXECUTION_UNINIT shall be the default value after a reset. **This enumeration value shall have the numeric value 0.**

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76532: MCAL: Numeric value definition

Problem description:

General question: Why we need to define in SWS the numeric values e.g. for Enumeration. If we decide to do that it shall be done as part of the table description and it shall be consistently done for all ranges, type etc.

In general it shall be defined in AUTOSAR whether defined values from UML model shall be extracted to the SWS. Example for a solution is to add the numeric values to the tables in chapter 8.

Numeric value definitions are redundant for the following items:

SWS_Spi_00011: After reset, the type Spi_StatusType shall have the default value SPI_UNINIT with the numeric value 0.()

Reason vor the value is coming from SRS_BSW_00406. This shall be added for traceability.

[SWS_Spi_00012] After reset, the type Spi_JobResultType shall have the default value SPI_JOB_OK with the numeric value 0.()

[SWS_Spi_00017] After reset, the type Spi_SeqResultType shall have the de-fault value SPI_SEQ_OK with the numeric value 0.()

Agreed solution:

Replace old description by this text:

[SWS_Spi_00011]: After reset, the type Spi_StatusType shall have the default value SPI_UNINIT.()

[SWS_Spi_00012]: After reset, the type Spi_JobResultType shall have the de-fault value SPI_JOB_OK.()

[SWS_Spi_00017]: After reset, the type Spi_SeqResultType shall have the de-fault value SPI_SEQ_OK.()

SWS_Spi_00373:

Spi_StatusType: Table item "SPI_UNINIT" shall have the value "0x00". Generation from UML model;

Traceability to be added to "SRS_BSW_00406, SRS_BSW_00335"

Affected CorTst:

Replace old description by the following :

[SWS_CorTst_00138]

For the type CorTst_ErrOkType, the enumeration value CORTST_E_NOT_TESTED shall be the default value after a reset. CorTstTestIntervalId shall have value zero per default.

Affected FlsTst:

Replace old description by the following :

[SWS_FlsTst_00049] For the type FlsTst_StateType, the enumeration value FLSTST_UNINIT shall be the default value after a reset.

[SWS_FlsTst_00053] For the type FlsTst_TestResultFgndType, the enumeration value FLSTST_NOT_TESTED shall be the default value after a reset.

[SWS_FlsTst_00154] For the type FlsTst_TestResultBgndType, the enumeration value FLSTST_RESULT_NOT_TESTED shall be the default value after a reset.

[SWS_FlsTst_00164] UML shall be updated to generate FLSTST_RESULT_NOT_TESTED with "0" value within this table.

Affected RamTst:

[SWS_RamTst_00006] For the type RamTst_ExecutionStatusType, the enumeration value RAMTST_EXECUTION_UNINIT shall be the default value after a reset.

[SWS_RamTst_00012] For the type RamTst_TestResultType (of the overall test result), the enumeration value RAMTST_RESULT_NOT_TESTED shall be the default value after a reset.

Remove trace to (SRS_BSW_00406)

[SWS_RamTst_00013] For the type RamTst_AlgorithmType, the enumeration value RAMTST_ALGORITHM_UNDEFINED shall be the default value after reset.

Remove trace to (SRS_BSW_00406)

Other MCAL modules:

Dio, Wdg, Ocu are not affected by this.
–Last change on issue 76532 comment 7–

BW-C-Level:

| Application | Specification | Bus |
|-------------|---------------|-----|
| 1 | 1 | 1 |

1.2 Specification Item SWS_RamTst_00012

Trace References:

SRS_BSW_00406

Content:

For the type RamTst_TestResultType (of the overall test result), the enumeration value RAMTST_RESULT_NOT_TESTED shall be the default value after a reset. **This enumeration value shall have the numeric value 0.**

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76532: MCAL: Numeric value definition

Problem description:

General question: Why we need to define in SWS the numeric values e.g. for Enumeration. If we decide to do that it shall be done as part of the table description and it shall be consistently done for all ranges, type etc.

In general it shall be defined in AUTOSAR whether defined values from UML model shall be extracted to the SWS. Example for a solution is to add the numeric values to the tables in chapter 8.

Numeric value definitions are redundant for the following items:

SWS_Spi_00011: After reset, the type Spi_StatusType shall have the default value SPI_UNINIT with the numeric value 0.()

Reason vor the value is coming from SRS_BSW_00406. This shall be added for traceability.

[SWS_Spi_00012] After reset, the type Spi_JobResultType shall have the default value SPI_JOB_OK with the numeric value 0.()

[SWS_Spi_00017] After reset, the type Spi_SeqResultType shall have the de-fault value SPI_SEQ_OK with the numeric value 0.()

Agreed solution:

Replace old description by this text:

[SWS_Spi_00011]: After reset, the type Spi_StatusType shall have the default value SPI_UNINIT.()

[SWS_Spi_00012]: After reset, the type Spi_JobResultType shall have the de-fault value SPI_JOB_OK.()

[SWS_Spi_00017]: After reset, the type Spi_SeqResultType shall have the de-fault value SPI_SEQ_OK.()

SWS_Spi_00373:

Spi_StatusType: Table item "SPI_UNINIT" shall have the value "0x00". Generation from UML model;

Traceability to be added to "SRS_BSW_00406, SRS_BSW_00335"

Affected CorTst:

Replace old description by the following :

[SWS_CorTst_00138]

For the type CorTst_ErrOkType, the enumeration value CORTST_E_NOT_TESTED shall be the default value after a reset. CorTstTestIntervalId shall have value zero per default.

Affected FlsTst:

Replace old description by the following :

[SWS_FlsTst_00049] For the type FlsTst_StateType, the enumeration value FLSTST_UNINIT shall be the default value after a reset.

[SWS_FlsTst_00053] For the type FlsTst_TestResultFgndType, the enumeration value FLSTST_NOT_TESTED shall be the default value after a reset.

[SWS_FlsTst_00154] For the type FlsTst_TestResultBgndType, the enumeration value FLSTST_RESULT_NOT_TESTED shall be the default value after a reset.

[SWS_FlsTst_00164] UML shall be updated to generate FLSTST_RESULT_NOT_TESTED with "0" value within this table.

Affected RamTst:

[SWS_RamTst_00006] For the type RamTst_ExecutionStatusType, the enumeration value RAMTST_EXECUTION_UNINIT shall be the default value after a reset.

[SWS_RamTst_00012] For the type RamTst_TestResultType (of the overall test result), the enumeration value RAMTST_RESULT_NOT_TESTED shall be the default value after a reset.

Remove trace to (SRS_BSW_00406)

[SWS_RamTst_00013] For the type RamTst_AlgorithmType, the enumeration value RAMTST_ALGORITHM_UNDEFINED shall be the default value after reset.

Remove trace to (SRS_BSW_00406)

Other MCAL modules:

Dio, Wdg, Ocu are not affected by this.

–Last change on issue 76532 comment 7–

BW-C-Level:

| Application | Specification | Bus |
|-------------|---------------|-----|
| 1 | 1 | 1 |

1.3 Specification Item SWS_RamTst_00013

Trace References:

[SRS_BSW_00406](#)

Content:

For the type RamTst_AlgorithmType, the enumeration value RAMTST_ALGORITHM_UNDEFINED shall be the default value after reset. **This enumeration value shall have the numeric value 0.**

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76532: MCAL: Numeric value definition

Problem description:

General question: Why we need to define in SWS the numeric values e.g. for Enumeration. If we decide to do that it shall be done as part of the table description and it shall be consistently done for all ranges, type etc.

In general it shall be defined in AUTOSAR whether defined values from UML model shall be extracted to the SWS. Example for a solution is to add the numeric values to the tables in chapter 8.

Numeric value definitions are redundant for the following items:

SWS_Spi_00011: After reset, the type Spi_StatusType shall have the default value SPI_UNINIT with the numeric value 0.()

Reason vor the value is coming from SRS_BSW_00406. This shall be added for traceability.

[SWS_Spi_00012] After reset, the type Spi_JobResultType shall have the default value SPI_JOB_OK with the numeric value 0.()

[SWS_Spi_00017] After reset, the type Spi_SeqResultType shall have the default value SPI_SEQ_OK with the numeric value 0.()

Agreed solution:

Replace old description by this text:

[SWS_Spi_00011]: After reset, the type Spi_StatusType shall have the default value SPI_UNINIT.()

[SWS_Spi_00012]: After reset, the type Spi_JobResultType shall have the default value SPI_JOB_OK.()

[SWS_Spi_00017]: After reset, the type Spi_SeqResultType shall have the default value SPI_SEQ_OK.()

SWS_Spi_00373:

Spi_StatusType: Table item "SPI_UNINIT" shall have the value "0x00". Generation from UML model;

Traceability to be added to "SRS_BSW_00406, SRS_BSW_00335"

Affected CorTst:

Replace old description by the following :

[SWS_CorTst_00138]

For the type CorTst_ErrOkType, the enumeration value CORTST_E_NOT_TESTED shall be the default value after a reset. CorTstTestIntervalId shall have value zero per default.

Affected FlsTst:

Replace old description by the following :

[SWS_FlsTst_00049] For the type FlsTst_StateType, the enumeration value FLSTST_UNINIT shall be the default value after a reset.

[SWS_FlsTst_00053] For the type FlsTst_TestResultFgndType, the enumeration value FLSTST_NOT_TESTED shall be the default value after a reset.

[SWS_FlsTst_00154] For the type FlsTst_TestResultBgndType, the enumeration value FLSTST_RESULT_NOT_TESTED shall be the default value after a reset.

[SWS_FlsTst_00164] UML shall be updated to generate FLSTST_RESULT_NOT_TESTED with "0" value within this table.

Affected RamTst:

[SWS_RamTst_00006] For the type RamTst_ExecutionStatusType, the enumera-

tion value RAMTST_EXECUTION_UNINIT shall be the default value after a reset.

[SWS_RamTst_00012] For the type RamTst_TestResultType (of the overall test result), the enumeration value RAMTST_RESULT_NOT_TESTED shall be the default value after a reset.

Remove trace to (SRS_BSW_00406)

[SWS_RamTst_00013] For the type RamTst_AlgorithmType, the enumeration value RAMTST_ALGORITHM_UNDEFINED shall be the default value after reset.

Remove trace to (SRS_BSW_00406)

Other MCAL modules:

Dio, Wdg, Ocu are not affected by this.

–Last change on issue 76532 comment 7–

BW-C-Level:

| Application | Specification | Bus |
|-------------|---------------|-----|
| 1 | 1 | 1 |

1.4 Specification Item SWS_RamTst_00089

Trace References:

none

Content:

The function RamTst_Init shall be called first before calling any other RAM test functions. If this sequence is not respected, the error code RAMTST_E_UNINIT shall be reported to the Default Error Tracer (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 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 |

1.5 Specification Item SWS_RamTst_00189

Trace References:

none

Content:

| | |
|-------|--|
| Name: | RamTst_ExecutionStatusTypeRamTst_ExecutionStatusType |
|-------|--|

| | | | |
|--------------|---|---|---|
| Type: | Enumeration | | |
| Range: | RAMTST_EXECUTION_UNINIT | RamTst_ExecutionStatus Type.RAMTST_EXECUTION_UNINIT | The RAM Test is not initialized or not usable. |
| | RAMTST_EXECUTION_STOPPED | RamTst_ExecutionStatus Type.RAMTST_EXECUTION_STOPPED | The RAM Test is stopped and ready to be started in foreground or to be allowed in background. |
| | RAMTST_EXECUTION_RUNNING | RamTst_ExecutionStatus Type.RAMTST_EXECUTION_RUNNING | The RAM Test is currently running. |
| | RAMTST_EXECUTION_SUSPENDED | RamTst_ExecutionStatus Type.RAMTST_EXECUTION_SUSPENDED | The background RAM Test is waiting to be resumed. |
| Description: | This is a status value returned by the API service RamTst_GetExecutionStatus(). | | |

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76532: MCAL: Numeric value definition

Problem description:

General question: Why we need to define in SWS the numeric values e.g. for Enumeration. If we decide to do that it shall be done as part of the table description and it shall be consistently done for all ranges, type etc.

In general it shall be defined in AUTOSAR whether defined values from UML model shall be extracted to the SWS. Example for a solution is to add the numeric values to the tables in chapter 8.

Numeric value definitions are redundant for the following items:

SWS_Spi_00011: After reset, the type Spi_StatusType shall have the default value SPI_UNINIT with the numeric value 0.()

Reason vor the value is coming from SRS_BSW_00406. This shall be added for traceability.

[SWS_Spi_00012] After reset, the type Spi_JobResultType shall have the default value SPI_JOB_OK with the numeric value 0.()

[SWS_Spi_00017] After reset, the type Spi_SeqResultType shall have the de-fault value SPI_SEQ_OK with the numeric value 0.()

Agreed solution:

Replace old description by this text:

[SWS_Spi_00011]: After reset, the type Spi_StatusType shall have the default value SPI_UNINIT.()

[SWS_Spi_00012]: After reset, the type Spi_JobResultType shall have the de-fault value SPI_JOB_OK.()

[SWS_Spi_00017]: After reset, the type Spi_SeqResultType shall have the de-fault value SPI_SEQ_OK.()

SWS_Spi_00373:

Spi_StatusType: Table item "SPI_UNINIT" shall have the value "0x00". Generation from UML model;

Traceability to be added to "SRS_BSW_00406, SRS_BSW_00335"

Affected CorTst:

Replace old description by the following :

[SWS_CorTst_00138]

For the type CorTst_ErrOkType, the enumeration value CORTST_E_NOT_TESTED shall be the default value after a reset. CorTstTestIntervalId shall have value zero per default.

Affected FlsTst:

Replace old description by the following :

[SWS_FlsTst_00049] For the type FlsTst_StateType, the enumeration value FLSTST_UNINIT shall be the default value after a reset.

[SWS_FlsTst_00053] For the type FlsTst_TestResultFgndType, the enumeration value FLSTST_NOT_TESTED shall be the default value after a reset.

[SWS_FlsTst_00154] For the type FlsTst_TestResultBgndType, the enumeration value FLSTST_RESULT_NOT_TESTED shall be the default value after a reset.

[SWS_FlsTst_00164] UML shall be updated to generate FLSTST_RESULT_NOT_TESTED with "0" value within this table.

Affected RamTst:

[SWS_RamTst_00006] For the type RamTst_ExecutionStatusType, the enumeration value RAMTST_EXECUTION_UNINIT shall be the default value after a reset.

[SWS_RamTst_00012] For the type RamTst_TestResultType (of the overall test result), the enumeration value RAMTST_RESULT_NOT_TESTED shall be the default value after a reset.

Remove trace to (SRS_BSW_00406)

[SWS_RamTst_00013] For the type RamTst_AlgorithmType, the enumeration value RAMTST_ALGORITHM_UNDEFINED shall be the default value after reset.

Remove trace to (SRS_BSW_00406)

Other MCAL modules:

Dio, Wdg, Ocu are not affected by this.
–Last change on issue 76532 comment 7–

BW-C-Level:

| Application | Specification | Bus |
|-------------|---------------|-----|
| 1 | 1 | 1 |

1.6 Specification Item SWS_RamTst_00190

Trace References:

none

Content:

| | | | |
|--------------|---|-----------------|--|
| Name: | RamTst_TestResultTypeRamTst_TestResultType | | |
| Type: | Enumeration | | |
| Range: | RAMTST_RESULT_NOT_TESTED Tst_TestResult Type.RAMTST_RESULT_NOT_TESTED | EDRam – 0x00 | The RAM Test is not executed. |
| | RAMTST_RESULT_OK Tst_TestResult Type.RAMTST_RESULT_OK | – 0x01 | The RAM Test has been tested with OK result |
| | RAMTST_RESULT_NOT_OK Tst_TestResult Type.RAMTST_RESULT_NOT_OK | EDRam – 0x02 | The RAM Test has been tested with NOT-OK result. |
| | RAMTST_RESULT_UNDEFINED Tst_TestResult Type.RAMTST_RESULT_UNDEFINED | EDRam – 0x03 | The RAM Test is currently running. |
| Description: | This is a status value returned by the API service RamTst_GetTestResult(). | | |

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76532: MCAL: Numeric value definition

Problem description:

General question: Why we need to define in SWS the numeric values e.g. for Enumeration. If we decide to do that it shall be done as part of the table description and it shall be consistently done for all ranges, type etc.

In general it shall be defined in AUTOSAR whether defined values from UML model shall be extracted to the SWS. Example for a solution is to add the numeric values to the tables in chapter 8.

Numeric value definitions are redundant for the following items:

SWS_Spi_00011: After reset, the type Spi_StatusType shall have the default value SPI_UNINIT with the numeric value 0.()

Reason for the value is coming from SRS_BSW_00406. This shall be added for traceability.

[SWS_Spi_00012] After reset, the type Spi_JobResultType shall have the default value SPI_JOB_OK with the numeric value 0.()

[SWS_Spi_00017] After reset, the type Spi_SeqResultType shall have the default value SPI_SEQ_OK with the numeric value 0.()

Agreed solution:

Replace old description by this text:

[SWS_Spi_00011]: After reset, the type Spi_StatusType shall have the default value SPI_UNINIT.()

[SWS_Spi_00012]: After reset, the type Spi_JobResultType shall have the default value SPI_JOB_OK.()

[SWS_Spi_00017]: After reset, the type Spi_SeqResultType shall have the default value SPI_SEQ_OK.()

SWS_Spi_00373:

Spi_StatusType: Table item "SPI_UNINIT" shall have the value "0x00". Generation from UML model;

Traceability to be added to "SRS_BSW_00406, SRS_BSW_00335"

Affected CorTst:

Replace old description by the following :

[SWS_CorTst_00138]

For the type CorTst_ErrOkType, the enumeration value CORTST_E_NOT_TESTED shall be the default value after a reset. CorTstTestIntervalId shall have value zero per default.

Affected FlsTst:

Replace old description by the following :

[SWS_FlsTst_00049] For the type FlsTst_StateType, the enumeration value FLSTST_UNINIT shall be the default value after a reset.

[SWS_FlsTst_00053] For the type FlsTst_TestResultFgndType, the enumeration value FLSTST_NOT_TESTED shall be the default value after a reset.

[SWS_FlsTst_00154] For the type FlsTst_TestResultBgndType, the enumeration value FLSTST_RESULT_NOT_TESTED shall be the default value after a reset.

[SWS_FlsTst_00164] UML shall be updated to generate

FLSTST_RESULT_NOT_TESTED with "0" value within this table.

Affected RamTst:

[SWS_RamTst_00006] For the type RamTst_ExecutionStatusType, the enumeration value RAMTST_EXECUTION_UNINIT shall be the default value after a reset.

[SWS_RamTst_00012] For the type RamTst_TestResultType (of the overall test result), the enumeration value RAMTST_RESULT_NOT_TESTED shall be the default value after a reset.

Remove trace to (SRS_BSW_00406)

[SWS_RamTst_00013] For the type RamTst_AlgorithmType, the enumeration value RAMTST_ALGORITHM_UNDEFINED shall be the default value after reset.

Remove trace to (SRS_BSW_00406)

Other MCAL modules:

Dio, Wdg, Ocu are not affected by this.

–Last change on issue 76532 comment 7–

BW-C-Level:

| Application | Specification | Bus |
|-------------|---------------|-----|
| 1 | 1 | 1 |

1.7 Specification Item SWS_RamTst_00227

Trace References:

none

Content:

| | |
|-------|--|
| Name: | RamTst_AlgorithmTypeRamTst_AlgorithmType |
| Type: | Enumeration |

| | | | |
|--------------|---|--------|--|
| Range: | RAMTST_ALGORITHM_UNDEFINEDRam Tst_Algorithm Type.RAMTST_ALGORITHM_UNDEFINED | – 0x00 | Undefined algorithm (uninitialized value) |
| | RAMTST_CHECKERBOARD_TESTRam Tst_Algorithm Type.RAMTST_CHECKERBOARD_TEST | – 0x01 | Checkerboard test algorithm |
| | RAMTST_MARCH_TESTRam Tst_Algorithm Type.RAMTST_MARCH_TEST | – 0x02 | March test algorithm |
| | RAMTST_WALK_PATH_TESTRam Tst_Algorithm Type.RAMTST_WALK_PATH_TEST | – 0x03 | Walk path test algorithm |
| | RAMTST_GALPAT_TESTRam Tst_Algorithm Type.RAMTST_GALPAT_TEST | – 0x04 | Galpat test algorithm |
| | RAMTST_TRANSP_GALPAT_TESTRam Tst_Algorithm Type.RAMTST_TRANSP_GALPAT_TEST | – 0x05 | Transparent Galpat test algorithm |
| | RAMTST_ABRAHAM_TESTRam Tst_Algorithm Type.RAMTST_ABRAHAM_TEST | – 0x06 | Abraham test algorithm |
| Description: | This is a value returned by the API service RamTst_GetTestAlgorithm(). | | |

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76532: MCAL: Numeric value definition

Problem description:

General question: Why we need to define in SWS the numeric values e.g. for Enumeration. If we decide to do that it shall be done as part of the table description and it shall be consistently done for all ranges, type etc.

In general it shall be defined in AUTOSAR whether defined values from UML model shall be extracted to the SWS. Example for a solution is to add the numeric values to the tables in chapter 8.

Numeric value definitions are redundant for the following items:

SWS_Spi_00011: After reset, the type Spi_StatusType shall have the default value SPI_UNINIT with the numeric value 0.()

Reason vor the value is coming from SRS_BSW_00406. This shall be added for traceability.

[SWS_Spi_00012] After reset, the type Spi_JobResultType shall have the default value SPI_JOB_OK with the numeric value 0.()

[SWS_Spi_00017] After reset, the type Spi_SeqResultType shall have the de-fault value SPI_SEQ_OK with the numeric value 0.()

Agreed solution:

Replace old description by this text:

[SWS_Spi_00011]: After reset, the type Spi_StatusType shall have the default value SPI_UNINIT.()

[SWS_Spi_00012]: After reset, the type Spi_JobResultType shall have the de-fault value SPI_JOB_OK.()

[SWS_Spi_00017]: After reset, the type Spi_SeqResultType shall have the de-fault value SPI_SEQ_OK.()

SWS_Spi_00373:

Spi_StatusType: Table item "SPI_UNINIT" shall have the value "0x00". Generation from UML model;

Traceability to be added to "SRS_BSW_00406, SRS_BSW_00335"

Affected CorTst:

Replace old description by the following :

[SWS_CorTst_00138]

For the type CorTst_ErrOkType, the enumeration value CORTST_E_NOT_TESTED shall be the default value after a reset. CorTstTestIntervalId shall have value zero per default.

Affected FlsTst:

Replace old description by the following :

[SWS_FlsTst_00049] For the type FlsTst_StateType, the enumeration value FLSTST_UNINIT shall be the default value after a reset.

[SWS_FlsTst_00053] For the type FlsTst_TestResultFgndType, the enumeration value FLSTST_NOT_TESTED shall be the default value after a reset.

[SWS_FlsTst_00154] For the type FlsTst_TestResultBgndType, the enumeration value FLSTST_RESULT_NOT_TESTED shall be the default value after a reset.

[SWS_FlsTst_00164] UML shall be updated to generate FLSTST_RESULT_NOT_TESTED with "0" value within this table.

Affected RamTst:

[SWS_RamTst_00006] For the type RamTst_ExecutionStatusType, the enumeration value RAMTST_EXECUTION_UNINIT shall be the default value after a reset.

[SWS_RamTst_00012] For the type RamTst_TestResultType (of the overall test result), the enumeration value RAMTST_RESULT_NOT_TESTED shall be the default value after a reset.

Remove trace to (SRS_BSW_00406)

[SWS_RamTst_00013] For the type RamTst_AlgorithmType, the enumeration value RAMTST_ALGORITHM_UNDEFINED shall be the default value after reset.

Remove trace to (SRS_BSW_00406)

Other MCAL modules:

Dio, Wdg, Ocu are not affected by this.

–Last change on issue 76532 comment 7–

BW-C-Level:

| Application | Specification | Bus |
|-------------|---------------|-----|
| 1 | 1 | 1 |