Information note

N° 10304AERRA

Dear customer,

With this Infineon Technologies AG information note, we would like to inform you about the following

MC-ISAR_AURIX Release Notes Addendum V9.0 affecting products TC3xx

On 16 April 2020, Infineon acquired Cypress.
We are now in the process of merging and consolidating our tools and processes for PCN, Information Notes, Errata and Product Discontinuance.
For further details, please visit our website:
https://www.infineon.com/cms/en/about-infineon/company/cypress-acquisition/

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Information note

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▶ **Products affected**	Please refer to attached affected product list 1_cip10304

▶ **Detailed change information**

Subject	MC-ISAR_AURIX Release Notes Addendum V9.0 affecting products TC3xx	
Reason	Update of the Release Notes Addendum due to new known issues	
Description	**Old**	**New**
	■ Release Notes Addendum Version 8.0	■ Release Notes Addendum Version 9.0

▶ **Product identification**	Not applicable (no change of product)
▶ **Impact of change**	Assessment in Application required !
▶ **Attachments**	1_cip10304 affected product list 3_cip10304 Release Notes Addendum V9.0
▶ **Intended start of delivery**	Not applicable

If you have any questions, please do not hesitate to contact your local sales office.

MC-ISAR_AS4xx_TC3xx

Release Notes Addendum

Version: v9.0 Released

Date: 2021-12-20

About this document

Scope and purpose

This release notes addendum (RNA) document lists all the issues identified in productive releases of the MC-ISAR_AS4xx_TC3xx product. Issues Processed on or before 2021-11-30 are considered in this version, including safety topics / anomalies.

Note: Issues and safety anomalies known at the time of release are documented in release notes and safety case. Integrators are required to take them into consideration in addition to the issues listed in this document.

Table 1 Production Releases (PR) and Maintenance Releases (MR) covered

HW Devices	SW Package names	Release Date	Release quality	Release number
TC39xB TC38x	MC-ISAR_AS42x_AURIX2G_TC38xA_TC39xB_BASIC_1.10.0.zip MC-ISAR_AS42x_AURIX2G_TC38xA_TC39xB_CD_1.10.0.zip MC-ISAR_AS42x_AURIX2G_TC38xA_TC39xB_COM-E_1.10.0.zip MC-ISAR_AS42x_AURIX2G_TC38xA_TC39xB_DEMO_1.10.0.zip	2019-03-27	PR	1.10.0
TC39xB TC38x TC37xEXT TC37xPD TC35x	MC-ISAR_AS42x_TC3xx_BASIC_1.30.0.zip MC-ISAR_AS42x_TC3xx_CD_1.30.0.zip MC-ISAR_AS42x_TC3xx_COM-E_1.30.0.zip MC-ISAR_AS42x_TC3xx_DEMO_1.30.0.zip	2019-10-24	PR	1.30.0
TC39x TC38x TC37x TC37XEXT TC35x TC36x TC33XEXT TC33x TC32x	MC-ISAR_AS42x_TC3xx_BASIC_1.40.0.zip MC-ISAR_AS42x_TC3xx_CD_1.40.0.zip MC-ISAR_AS42x_TC3xx_COM-E_1.40.0.zip MC-ISAR_AS42x_TC3xx_DEMO_1.40.0.zip	2020-05-29	PR	1.40.0
TC39x TC38x TC37x_ED TC37x TC36x	MC-ISAR_AS422_TC3xx_BASIC_2.0.0.zip MC-ISAR_AS422_TC3xx_CD_2.0.0.zip MC-ISAR_AS422_TC3xx_COM-E_2.0.0.zip MC-ISAR_AS422_TC3xx_Demo_2.0.0.zip MC-ISAR_AS440_TC3xx_BASIC_2.0.0.zip	2021-04-12	PR	2.0.0

TC35x TC33x_ED TC33x TC32x TC3Ex	MC-ISAR_AS440_TC3xx_CD_2.0.0.zip MC-ISAR_AS440_TC3xx_COM-E_2.0.0.zip MC-ISAR_AS440_TC3xx_Demo_2.0.0.zip			
TC39x TC38x TC37x_ED TC37x TC36x TC35x TC33x_ED TC33x TC32x TC3Ex	MC-ISAR_AS422_TC3xx_BASIC_2.10.0.zip MC-ISAR_AS422_TC3xx_CD_2.10.0.zip MC-ISAR_AS422_TC3xx_COM-E_2.10.0.zip MC-ISAR_AS422_TC3xx_Demo_2.10.0.zip MC-ISAR_AS440_TC3xx_BASIC_2.10.0.zip MC-ISAR_AS440_TC3xx_CD_2.10.0.zip MC-ISAR_AS440_TC3xx_COM-E_2.10.0.zip MC-ISAR_AS440_TC3xx_Demo_2.10.0.zip	2021-12-07	MR	2.10.0

Note: All compiler defects published by the compiler vendor are analyzed and checked for applicability to MCAL product. Only those compiler defects which are applicable and which are not addressed, are mentioned here.

Intended audience

This document is intended for anyone using the MC-ISAR_AS4xx_TC3xx, also referred as MCAL SW.

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1 Known issues v9.0

1.1 Adc

1.1.1 0000053912-17558

Issue description: Alias feature in ADC will not work for the unavailable ADC Physical channels.

Impact: User is not able to use Alias feature for un-available ADC physical channels.

Work around: None.

Impacted Release(s): 1.10.0, 1.30.0, 140.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

1.2 Can_17_McmCan

1.2.1 0000053912-17920, 0000053912-17944

Issue description: The CAN driver BSWMD arxml generates the BSW-TIMING-EVENT for CAN driver main functions unconditionally, without considering the polling or interrupt is configured.

Impact: The BSW-TIMING-EVENT for CAN driver main functions are generated in interrupt mode.

Work around: Integrator shall ignore the corresponding main functions if interrupt is configured for the same.
Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0, 2.10.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

1.2.2 0000053912-18039

Issue description: Overwriting of the CAN HW Object space in CAN message RAM.

Impact: In Tresos, if RX CAN HW objects are not configured in ascending order of CAN object IDs and/or List order, or 'RXFIFO ' objects are configured before 'RX dedicated' objects, the offset for standard/extended IDs are generated with incorrect values. This will result in overwriting of the CAN HW Object space in CAN message RAM.

Workaround: Below configuration rules need to be followed for workaround.

During CAN hardware object configuration, the receive objects of a controller shall be configured in Tresos in the ascending order of CanObjectId

AND

If the receive FIFO objects are to be used then the receive FIFO objects shall be configured as the last receive type objects for each controller. That is, below order shall be followed for index and CanObjectId of receive objects per CAN controller.

1. Rx Dedicated
2. Rx FIFO0

3. Rx FIFO1.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0, 2.10.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

1.3 Common

1.3.1 0000053912-18009

Issue description: Function list used for Stack analysis by SDA tool are not as per the available module's functions

Impact: Stack analysis is not considered for added functions in release 2.0.0 across modules.

Work around: None.

Impacted Release(s): 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

1.4 Fee

1.4.1 0000053912-17777

Issue description:

Due to error in driver software Fee_GetStatus() API may provide MEMIF_IDLE instead of MEMIF_BUSY_INTERNAL when following conditions are met together.

1) Configuration parameter FeeBlockTypeConfigured and FeeGcRestart are set to FEE_DOUBLE_SECTOR_AND_QUASI_STATIC_DATA and FEE_GC_RESTART_WRITE respectively.

2) Following call sequence occurs.

Fee_Init() --> Fee_Read() for QS block or

Fee_Init() --> Fee_Read() for NVM block --> Fee_Read() for QS block

Impact: No impact on normal operations of Fee. New user request will be accepted and executed normally after driver internal status changes from MEMIF_BUSY_INTERNAL to MEMIF_IDLE.

Work around: Not applicable because there is no functional impact.

Impacted Release(s): 1.10.0, 1.30.0, 140.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

1.5 Fls_17_Dmu

1.5.1 0000053912-17562

Issue description: Fls_17_Dmu_Init () rely on reset value of SFRs HF_ECCW, HF_CCONTROL, HF_PCONTROL and HF_PROCONDF for proper function of driver.

Impact: Driver may not work properly if SFRs HF_ECCW, HF_CCONTROL, HF_PCONTROL and HF_PROCONDF are modified by user and is not at reset value during the call to Fls_17_Dmu_Init ().

Work around: User shall ensure that SFRs HF_ECCW, HF_CCONTROL, HF_PCONTROL and HF_PROCONDF are reset before MCAL initialization if modified by user.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0, 2.10.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

1.6 FlsLoader

1.6.1 0000053912-17606

Issue description: FlsLoader_Init() relies on reset value of HF_EER and HF_CCONTROL for proper function of driver.

Impact: Drive may not work properly if HF_EER and HF_CCONTROL are modified by user and is not at reset value during the call to FlsLoader_Init().

Work around: User shall ensure that SFRs HF_EER and HF_CCONTROL are reset before MCAL initialization if modified by user.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0, 2.10.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

1.7 Gpt

1.7.1 0000053912-17483

Issue description: Gpt_GetTimeElapsed() and Gpt_GetTimeRemaining() may return incorrect values for GTM based channels in one-shot mode.

Impact: In GTM TOM/ATOM, if interrupt is not enabled, counter will count twice and will result in wrong values for the Get APIs Gpt_GetTimeElapsed() and Gpt_GetTimeRemaining().

Work around: User shall always enable notification for one-shot enabled GTM based channels (using Gpt_EnableNotification() API).

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0, 2.10.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

1.8 Icu_17_TimerIp

1.8.1 0000053912-17519

Issue description: Icu_17_TimerIp_Init() relies on reset value of some SFRs.

Impact: Icu functionality will be impacted if the below SFRs are modified by user and is not at reset value during the call to Icu_17_TimerIp_Init()

Known issues v9.0

- For CCU6 based ICU channels, CCU6_IEN, CCU6_TCTR0 and CCU6_PISEL2 must be at reset value

- For GTM TIM based ICU channels, channel must be disabled in GTM_TIM_CH_CTRL

- For ERU based channels, EIFR should be cleared else Icu_17_TimerIp_GetInputState() might return a wrong value.

Work around: User shall ensure the SFRs based on CCu6/GTM/ERU are reset before MCAL initialization if modified by user.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0, 2.10.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

1.9 McalLib

1.9.1 0000053912-17106

Issue description: McalLib UM has incomplete information for modules calling Mcal_DelayGetTick().

Impact: No functional impact, only documentation is inconsistent and missing for some modules invoking Mcal_DelayGetTick().

Work around: No functional impact.

Impacted Release(s): 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

1.9.2 0000053912-17835

Issue description: UM confusion for constants placement.

Impact: In "Multicore and Resource Manager" UM section, the placement of constants is wrongly mentioned to be put in non-cached LMU. The constants marked as global is recommended to be placed to any PFLASH region.

Work around: User shall treat McalLib constants to be placed to any PFLASH region.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

1.10 Mcu

1.10.1 0000053912-17792

Issue description: Mcu Clock calculator tool has inconsistent names with respect to Mcu driver configuration.

Impact: Clock calculator has confusing names as Fpll0, Fpll1 and Fpll2 which is not inline with the Mcu driver configuration and users cannot co-relate.

Work around: To be consistent with Mcu driver configuration, user shall treat the mapping of the names as

- Fpll0 -> McuClockReferencePointFrequency0

- Fpll1 -> McuClockReferencePointFrequency1

- Fpll2 -> McuClockReferencePointFrequency2.

Impacted Release(s): 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

1.10.2 0000053912-17534

Issue description: Mcu_Init() relies on reset value of some GPT12 SFR.

Impact: Mcu only configures the prescalar values in GPT12 T3CON and T6CON and assumes the other bits are at reset value.

Work around: User shall ensure the SFRs are at reset value before MCAL initialization if modified by user.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0, 2.10.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

1.11 Port

1.11.1 0000053912-17843

Issue description: The signature of Port_InitCheck() API in UM is not matching with driver code.

Impact: Code and User Manual inconsistent.

Work around: Refer Port_InitCheck API signature in code [Std_ReturnType Port_InitCheck (const Port_ConfigType* const ConfigPtr)] and ignore the API signature described in User Manual.

Impacted Release(s): 1,10,0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

1.12 Pwm_17_GtmCcu6

1.12.1 0000053912-17860

Issue description: Pwm_17_GtmCcu6_DeInit() does not reset all SFRs.

Impact: Pwm_17_GtmCcu6_DeInit() does not reset these SFRs : CN0, CM0, CM1, SR0, SR1, IRQ_MODE for a PWM channel to 0. Even though these SFRs for a PWM channel is not reset, the PWM channel is disabled and output signal will be at idle state. The missed SFRs will not impact the PWM functionality at shutdown but will have a static configured value other than 0.

Work around: User shall reset the CN0, CM0, CM1, SR0, SR1, IRQ_MODE for the PWM channel if required to be reset to 0 at shutdown.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0, 2.10.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

1.12.2 0000053912-17564

Issue description: Pwm_17_GtmCcu6_Init() does not configure the correct clock source only for ATOM PWM channels.

Impact: To avoid signal glitches, Pwm_17_GtmCcu6_Init() uses the clock stop feature (ECLK_SRC=1 and CLK_SRC_SR = 4) and then initializes the ATOM channel, and re-enables the clock source after configuration. If CMU_CLK4 is disabled in Mcu configuration, then all the channels within the AGC clock sources are also stopped (CMU_CLK4 has a dependency on clock sources of other channels within the AGC).

Work around: User shall enable CMU_CLK4 in Mcu configuration. This ensures other channels clock sources are not impacted.

Impacted Release(s): 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

1.12.3 0000053912-17527

Issue description: Pwm_17_GtmCcu6_Init() rely on CCU6 reset value for CMPSTAT, CMPMODIF, CCU6_PISEL2 SFRs.

Impact: Pwm functionality for CCU6 based PWM channels will be impacted if CMPSTAT, CMPMODIF, CCU6_PISEL2 are modified by user and is not at reset value during the call to Pwm_17_GtmCcu6_Init().

Work around: User shall ensure the CCU6 SFRs CMPSTAT, CMPMODIF, CCU6_PISEL2 are reset before MCAL initialization if modified by user.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0, 2.10.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

1.13 Spi

1.13.1 0000053912-17348

Issue description: 32 bit alignment sections not used for defining SPI buffers in Demo code.

Impact: If 16bit or 32bit data widths are specified and the buffer alignment is not 32bit then data alignment trap will be raised.

Work around: User shall use 32bit alignment MemMap sections while defining data buffers for SPI transmission or reception.

Impacted Release(s): 1.10.0, 2.0.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

1.14 Uart

1.14.1 0000053912-17921

Issue description: Name mismatch for the configuration parameter between the UART user manual and the UART plugin file. As per the UART user manual, the parameter name is 'UartStreamingRecvNotifPtr', but in the UART plugin it is given as 'UartStreamingNotifPtr'.

Impact: No functional impact.

Work around: The UART integrator has to consider the parameter name 'UartStreamingRecvNotifPtr' from user manual and 'UartStreamingNotifPtr' from plugin are same.

Impacted Release(s): 2.10.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

1.15 Wdg

1.15.1 0000053912-17766

Issue description: Deviation of the header file inclusion order in Wdg_17_Scu.h for Autosar 4.2.2 and 4.4.0 compatibility.

Impact: Wdg_17_Scu.h need to include WdgIf.h (for Autosar 4.4.0) and WdgIf_Types.h (for Autosar 4.2.2) for the declaration of WdgIf_ModeType. Since WdgIf.h includes WdgIf_Types.h, compatibility between both Autosar versions is maintained without including WdgIf_Types.h explicitly. However, this can give rise to circular inclusion, depending on the order of inclusion being used in the upper layers. For instance, if the WdgIf_Cfg.h includes Wdg_17_Scu.h for implementation, the following circular inclusion can result: Wdg_17_Scu.h -> WdgIf.h -> WdgIf_Cfg.h -> Wdg_17_Scu.h.

Work around: The user can take care of the inclusion order to prevent circular inclusion problems by choosing to include the driver header files in source files rather in the header files.

Impacted Release(s): 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2

1.15.2 0000053912-15054

Issue description: Wdg_17_Scu_InitCheck() will fail if debugger is connected and Suspend mode if OFF (disabling the Wdg timer).

Impact: If debugger is connected and suspend mode is OFF, it will disable the WDG timer causing Wdg_17_Scu_InitCheck() to fail. The reload value will be at 0xFFFC and will not match the configured reload value.

Work around: Do not call Wdg_17_Scu_InitCheck() if debugger is connected with Suspend OFF.

Impacted Release(s): 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

1.15.3 0000053912-17759

Issue description: Wdg_17_Scu_InitCheck() failure due to mis-match in reload value.

Impact: Wdg_17_Scu_InitCheck() compares the reload value in WDT SFR with the reload value in the configuration data.Wdg_17_Scu_InitCheck() reports a failure when the Wdg Timer reload value has incremented from the configured timeout value.

Work around: None

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

2 Known issues v8.0

2.1 Can_17_McmCan

2.1.1 0000053912-17604

Issue description: Can_17_McmCan_Init() relies on reset value of some SFRs.

Impact: CAN driver functionality will be impacted if the SFRs listed below are modified by user and is not at reset value during the call to Can_17_McmCan_Init()

CAN_N_CCCR, CAN_N_GRINT1, CAN_N_GRINT2, CAN_N_RX_BC, CAN_N_NDATA1, CAN_N_NDATA2, CAN_N_TESTi, CAN_N_RWDi, CAN_N_RXF0Si, CAN_N_RXF1Si, CAN_N_RXESCi, CAN_N_TXFQSi, CAN_TXBTIEi, CAN_TXEFSi.

Work around: User shall ensure the SFRs are at reset value before MCAL initialization if modified by user.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.1.2 0000053912-17435

Issue description: CanIf_TriggerTransmit call exists in CAN driver even if not enabled in Tresos.

Impact: Compilation issues may arise since CanIf_TriggerTransmit call exists in CAN driver even if its not enabled.

Work around: A dummy declaration of CanIf_TriggerTransmit must be defined in CanIf when trigger transmit feature is disabled.

Impacted Release(s): 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.2 Dma

2.2.1 0000053912-17548

Issue description: Dma driver does not clear ME error flags during the initialization of the driver.

Impact: If there are any ME errors present in the ME registers before initialization of the driver, they would not be cleared. When new errors occur, these flags are also reported along with any new error flags, unless cleared explicitly.

Work around: User shall clear the error flags using the registers DMA_CLRE0 and DMA_CLRE1 before calling Dma_Init.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.2.2 0000053912-17255

Issue description:

The user manual of DMA driver contains the following errors.

1. The data type of input parameter for Dma_InitCheck API was incorrect.

2. DMA_E_NULL_POINTER was incorrectly mentioned as one of the errors reported by Dma_GetCrcValue API.

Impact: No functional impact.

Work around:

1. User should consider the function prototype of the Dma_InitCheck as : "Std_ReturnType Dma_InitCheck(const Dma_ConfigType* const ConfigPtr)".

2. User should not expect the DMA_E_NULL_POINTER error to be reported from the Dma_GetCrcValue API.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.2.3 0000053912-17436

Issue description: The DMA driver APIs (Dma_ChInterruptHandler, Dma_MEInterruptDispatcher) used the same service IDs assigned for the DSADC driver APIs (Dsadc_Init, Dsadc_DeInit).

Impact: DMA and DSADC are complex drivers and the Module ID will be same as 255 for both. During the DET/Safety error reporting, the user will not be able to differentiate the errors reported from Dma_ChInterruptHandler and Dsadc_Init as same service ID 0x1A is used. Dma_MEInterruptDispatcher does not have any impact since it does not report any error, even though Service ID is 0x1B same with Dsadc_DeInit.

Work around: The error IDs reported by Dma_ChInterruptHandler API and DSADC APIs (Dsadc_Init, Dsadc_DeInit) are different. When service id 0x1A is provided in the DET/Safety error reporting, the user can distinguish the errors based on the error IDs reported, as follows:

- 0x16 : Error is reported from Dma driver.

- 0x01 or 0x02 : Error is reported from Dsadc driver.

For details on the errors, please refer the respective driver user manuals.

Impacted Release(s): 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.3 Fee

2.3.1 0000053912-17500

Issue description: Due to an error in the software implementation of FEE driver , driver may report trap or provide wrong data for given block number.

Impact:

1. Fee_Read/Fee_17_GetPrevData API may provide wrong data for given block number.

2. DET/Safety error FEE_E_INVALID_BLOCK_NO may not be reported by Fee_Write/Fee_Read/Fee_InvalidateBlock/Fee_17_GetPrevData/Fee_17_GetCycleCount.

3. Trap(DAE/DSE) may be reported when unconfigured block detect during initialization (cache build) or read/write/invalidate request given for unconfigured block.

Work around:

1. Use same block configuration for boot and user application.

2. Do not call Fee_Write/Fee_Read/Fee_InvalidateBlock/Fee_17_GetPrevData/Fee_17_GetCycleCount for unconfigured blocks.

If configuration parameter FeeBlockTypeConfigured = FEE_DOUBLE_SECTOR_AND_QUASI_STATIC_DATA then ensure that QS blocks number shall be greater than highest NVM block number.

Impacted Release(s): 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.3.2 0000053912-17410

Issue description: Example given in configuration verification manual for FEE_MAX_BLOCK_COUNT macro generation is wrong.

Impact: No functional impact, macro FEE_E_GC_INIT is wrongly mentioned in the example.

Work around: User shall ignore the example give in configuration manual and refer the below mentioned:

> Example 1 : If the user configures FeeMaxBlockCount as 1 and data blocks as 4, FEE_MAX_BLOCK_COUNT will be generated with value of 4.
>
> Example 2 : If the user configures FeeMaxBlockCount as 20 and data blocks as 4, FEE_MAX_BLOCK_COUNT will be generated with value of 20.

Impacted Release(s): 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.4 Fls_17_Dmu

2.4.1 0000053912-17562

Issue description: Fls_17_Dmu() rely on reset value of SFRs HF_ECCW, HF_CCONTROL, HF_PCONTROL and HF_PROCONDF for proper function of driver.

Impact: Drive may not work properly if SFRs HF_ECCW, HF_CCONTROL, HF_PCONTROL and HF_PROCONDF are modified by user and is not at reset value during the call to Fls_17_Dmu().

Work around: User shall ensure that SFRs HF_ECCW, HF_CCONTROL, HF_PCONTROL and HF_PROCONDF are reset before MCAL initialization if modified by user.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.5 FlsLoader

2.5.1 0000053912-17606

Issue description: FlsLoader_Init() relies on reset value of HF_EER and HF_CCONTROL for proper function of driver.

Impact: Drive may not work properly if HF_EER and HF_CCONTROL are modified by user and is not at reset value during the call to FlsLoader_Init().

Work around: User shall ensure that SFRs HF_EER and HF_CCONTROL are reset before MCAL initialization if modified by user.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.6 Gpt

2.6.1 0000053912-17484

Issue description: GetPredefTimerValue returns wrong value if value > 16-bit timer value.

Impact: GetPredefTimerValue() calculates incorrectly when retrieving the upper 16-bit if predef resolution is GPT_PREDEF_TIMER_1US_24BIT or GPT_PREDEF_TIMER_1US_32BIT or GPT_PREDEF_TIMER_100US_32BIT.

Work around: User shall use predef timer only with GPT_PREDEF_TIMER_1US_16BIT.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.7 Icu_17_TimerIp

2.7.1 0000053912-17519

Issue description: Icu_17_TimerIp_Init() relies on reset value of some SFRs.

Impact: Icu functionality will be impacted if the below SFRs are modified by user and is not at reset value during the call to Icu_17_TimerIp_Init()

- For CCU6 based ICU channels, CCU6_IEN, CCU6_TCTR0 and CCU6_PISEL2 must be at reset value

- For GTM TIM based ICU channels, channel must be disabled in GTM_TIM_CH_CTRL

- For ERU based channels, EIFR should be cleared else Icu_17_TimerIp_GetInputState() might return a wrong value.

Work around: User shall ensure the SFRs based on CCu6/GTM/ERU are reset before MCAL initialization if modified by user.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.8 Lin_17_AscLin

2.8.1 0000053912-17542

Issue description: When Lin_FrameResponseType is a slave response, LIN driver reports incorrect driver status when LIN bus is shorted.

Impact: When Lin_FrameResponseType is slave response, Lin Driver reports channel status as LIN_OPERATIONAL instead of LIN_TX_HEADER_ERROR if the LIN bus is shorted.

Work around: When Lin_FrameResponseType is slave response, application has to ignore the driver status in case of LIN bus short condition.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.9 McalLib

2.9.1 0000053912-13551

Issue description: Mcal_WriteSafetyEndInitProtRegMask() does not mask the "DataValue".

Impact: Mcal_WriteSafetyEndInitProtRegMask() does not mask the "DataValue" and undesired bits might be set in the register. No impact seen to the MCAL drivers invoking this API as masked value is passed as parameter.

Work around: User shall ensure the "DataValue" input parameter configures only the desired bits as per the "Mask" to be written in the register.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

2.10 Mcu

2.10.1 0000053912-17198

Issue description: Mcu driver does not support non-cached memory.

Impact: User cannot configure non-cached memory for

- Mcu_InitRamSection() to clear the memory

- Mcu_SetMode(MCU_STANDBY) for StandbyRAM configuration. This may result in MPU protection trap if user uses non-cached memory.

Work around: User shall operate on cached memory only for Mcu_InitRamSection() and Standby RAM configuration needed for Mcu_SetMode(MCU_STANDBY).

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.10.2 0000053912-12690

Issue description: Mcu initialization and Mcu_InitCheck independence restricted to clock initialization only.

Impact: Mcu initialization (Mcu_Init(), Mcu_InitClock(), Mcu_DistributePllClock() functions) and Mcu_InitCheck independence has been analyzedok will rephrase only with respect to clock initialization. It has not considered the other aspects of Mcu_Init like GTM initialization etc.

Work around: The claim of Mcu initialization and Mcu_InitCheck independence is limited to clock initialization only.

Impacted Release(s): 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

2.10.3 0000053912-17534

Issue description: Mcu_Init() relies on reset value of some GPT12 SFR.

Impact: Mcu only configures the prescalar values in GPT12 T3CON and T6CON and assumes the other bits are at reset value.

Work around: User shall ensure the SFRs are at reset value before MCAL initialization if modified by user.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.11 Ocu

2.11.1 0000053912-17523

Issue description: Ocu_InitCheck does not check IRQ_NOTIFY flag in ATOM SOMC mode.

Impact: Ocu_InitCheck missed to check clearing of interrupts flags (IRQ_NOTIFY) in ATOM SOMC mode as these channels are not started and can be verified after Ocu_Init.

Work around: User shall configure OCU channels using ATOM in SOMP mode or TOM channels.

Impacted Release(s): 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.11.2 0000053912-17522

Issue description: Ocu_Init() relies on reset value of FUPD SFRs.

Impact: Ocu_Init() relies FUPD control of TOM (TOM[i]_TGC[y]_FUPD_CTRL) and ATOM (ATOM[i]_AGC_FUPD_CTRL) to be explicitly disabled. If it is enabled by user, host trigger initiated by another module after Ocu_Init() will impact any running OCU channels.

Work around: OCU channels enabled by user before MCAL initialization phase should be disabled using the FUPD SFR.

Impacted Release(s): 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.12 Pwm_17_GtmCcu6

2.12.1 0000053912-17502

Issue description: Warnings reported during configuration project creation for PWM.

Impact: Warnings reported when loaded in Tresos tool for PWM configuration creation. No functional impact.

Work around: User can ignore the warnings.

Impacted Release(s): 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.12.2 0000053912-17686

Issue description: Pwm_17_GtmCcu6_Init() wrong initialization when PwmHandleShiftByOffset = TRUE and non-coherent channels.

Impact: Pwm_17_GtmCcu6_Init() does not initialize the channel clock if the PWM channels are non-coherent and PwmHandleShiftByOffset is TRUE.

Work around: User shall configure the PWM channels as coherent.

Impacted Release(s): 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.12.3 0000053912-17527

Issue description: Pwm_17_GtmCcu6_Init() rely on CCU6 reset value for CMPSTAT, CMPMODIF, CCU6_PISEL2 SFRs.

Impact: Pwm functionality for CCU6 based PWM channels will be impacted if CMPSTAT, CMPMODIF, CCU6_PISEL2 are modified by user and is not at reset value during the call to Pwm_17_GtmCcu6_Init().

Work around: User shall ensure the CCU6 SFRs CMPSTAT, CMPMODIF, CCU6_PISEL2 are reset before MCAL initialization if modified by user.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.12.4 0000053912-17526

Issue description: Pwm_17_GtmCcu6_InitCheck missed to verify CCU6 T13 period.

Impact: Pwm_17_GtmCcu6_InitCheck() does not verify the correctness of CCU6 T13PR SFR after Pwm_17_GtmCcu6_Init().

Work around: For safe initialization, User can configure the PWM channels on GTM or CCU6 T12 timers, instead of CCU6 T13.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.12.5 0000053912-17145

Issue description: PWM Shift issue seen with CCU6 for 0% or 100% duty cycle.

Impact: Incorrect PWM output is generated if user configures CCU6 with PwmShiftValue for 0% or 100% duty cycle.

Work around:

User shall configure

- PwmShiftValue parameter with (Period + 1) for 0% dutycycle

- PwmShiftValue parameter with (Period - 1) for 100% dutycycle.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.13 Sent

2.13.1 0000053912-17311

Issue description: In Sent.xdm, SentConfigSet container type is wrongly mentioned as 'MULTIPLE-CONFIGURATION-CONTAINER' instead of 'IDENTIFIABLE' which allows the user to add multiple configurations in Tresos.

Impact: User can add multiple SentConfigSets in Tresos though SENT driver supports only one ConfigSet.

Work around: User should configure only one SentConfigSet in Tresos.

Impacted Release(s): 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.14 Spi

2.14.1 0000053912-17254

Issue description: The destination reference path of the Non-Autosar parameter SpiHwConfigurationQspi is incorrect in the ResourceM module. It should start with AURIX2G instead of AUTOSAR. So, the SpiHwConfigurationQspi parameter will not be available in ResourceRef of DaVinci Configurator.

Impact: The SpiHwConfigurationQspi parameter will not be available in ResourceRef of DaVinci Configurator.

Work around: No workaround.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.15 Uart

2.15.1 0000053912-17497

Issue description: Uart_Init() function does not explicitly configure the FIFO mode.

Impact: If the UART FIFO mode register bits are not in reset state while UART driver initialization, UART driver functionality may fail.

Work around: Always invoke Uart_InitCheck() and confirm that Uart_InitCheck() returns E_OK.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

2.15.2 0000053912-17107

Issue description: Inconsistent error handling macro names given for frame error and parity error in source code and User Manual.

Impact: Ambiguity in application software during UART error processing.

Work around: User to consider UART_E_FRAME_ERR and UART_E_PARITY_ERR error names instead of UART_E_FRAME_ERROR and UART_E_PARITY_ERROR respectively.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

3 Safety topics v8.0

3.1 HW safety manual

3.1.1 0000053912-17326

Issue description: Impact analysis of AURIX TC3xx Safety Manual v2.0 to 1.10.0, 1.30.0, 1.40.0 and 2.0.0 production releases.

Impact: No Functional Impact.

Work around: None.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

4 Known issues v7.0

4.1 Dma

4.1.1 0000053912-16902

Issue description: DMA UM unused error code DMA_E_NOT_IN_FREEZE_STATE for Dma_ChEnableHardwareTrigger()

Impact: Wrong documentation in DMA UM of unused error code DMA_E_NOT_IN_FREEZE_STATE for Dma_ChEnableHardwareTrigger()

Work around: User shall ignore the DMA_E_NOT_IN_FREEZE_STATE error code for Dma_ChEnableHardwareTrigger()

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

4.1.2 0000053912-16826

Issue description: Interrupt event information can be missed in the Dma channel interrupt notification call.

Impact: If channel interrupts for same channel occurs again while the interrupt service routine is being executed, the event information can be missed in the latter interrupt notification call, as the interrupt flags get cleared only at the end of the interrupt service routine. In such instances, the Dma driver would report 'DMA_EVENT_CH_UNKNOWN_EVENT' as the event information in the channel notification function.

Work around: The user can check for instances where the channel can be triggered again before the ISR completes execution. In such cases, the user can consider 'DMA_EVENT_CH_UNKNOWN_EVENT' also as a valid interrupt reason.

Impacted Release(s): 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

4.1.3 0000053912-16681

Issue description: Init check service reports failure if CRC is configured in linked list.

Impact: The Init check service can report a failure if all of the following conditions are true: Init check service is enabled, linked list feature is enabled, the TCSes are created using the configuration tool (e.g. EB Tresos) and the first TCS of the linked list uses the CRC registers with non-zero values. Please note that there would not be any impact if the TCSes are created at runtime, instead of creating in the configuration tool.

Work around: While creating the TCSes, the user can keep the CRC values as zero. After the init check service has completed, the user can update the CRC values in the registers using Dma_ChUpdate service.

Impacted Release(s): 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

4.2 Fee

4.2.1 0000053912-17098

Issue description: Due to error in driver software ,driver will not return to IDLE state when following conditions are met together.

1) configuration parameter FeeGcRestart and FeeBlockTypeConfiguredis set to FEE_GC_RESTART_WRITE and FEE_DOUBLE_SECTOR_AND_QUASI_STATIC_DATA respectively.

2) Flash area configured for QS blocks is in virgin state (flash is completely erased) OR QS block state needs repair.

3) QS block read or write job is requested immediately after Fee_Init().

Impact: In scenario mentioned in description QS block write or read will not be executed and driver status will not return to MEMIF_IDLE.

Work around: Do not give the QS block read/write request immediately after Fee_Init().

Impacted Release(s): 1.10.0 , 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

4.2.2 0000053912-17098

Issue description: Due to error in driver software ,QS erase Job is rejected after Fee_Init() when following conditions are met together.

1) configuration parameter FeeGcRestart and FeeBlockTypeConfiguredis set to FEE_GC_RESTART_WRITE and FEE_DOUBLE_SECTOR_AND_QUASI_STATIC_DATA respectively.

2) Flash area configured for QS blocks is in virgin state (flash is completely erased) OR QS block state needs repair.

3)QS block erase job is requested immediately after Fee_Init().

Impact: In scenario mentioned in description QS block erase request will not be accepted.

Work around: Do not give the QS block erase request immediately after Fee_Init().

Impacted Release(s): 1.10.0 , 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

4.2.3 0000053912-16984

Issue description: Due to an error in the software implementation of FEE driver, when block resize feature is used and newly configured block size is greater than old size, then read of this block leads to overflow of user data buffer by 1 byte. This happens every time the block is read, until it is written for the first time with the new size.

Impact: In the scenario mentioned in the description, any user variable located next to user data buffer may be corrupted.

Work around: Increase the size of user data buffer by 1 byte.

Impacted Release(s): 1.10.0 , 1.30.0 , 1.40.0 , 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

4.2.4 0000053912-16757

Issue description: Due to an error in the software implementation of FEE driver, when a pending user normal block write request which has trigger the garbage collection (GC) operation or immediate block write request is pending due to garbage collection (GC) is cancelled by Fee_Cancel() then driver may write unintended data during garbage collection (GC).

Impact: In the scenario mentioned in the description, the data flash content may be corrupted leading to

- Data loss of user blocks and/or
- Trap (DAE/DSE)

Work around: Do not use Fee_Cancel() API for canceling pending write operation.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

4.2.5 0000053912-17108

Issue description: Incorrect name of DEM interface mentioned in the FEE user manual.

Impact: Incorrect DEM interface name may lead to confusion during integration.

Work around: Ignore the DEM interface name mentioned in the UM, Code is implemented as per AutoSAR DEM module.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

4.3 Fls_17_Dmu

4.3.1 0000053912-17083

Issue description: File inclusion in driver software is not as per AUTOSAR 4.2.2.

Impact: Driver files may not compile.

Work around: None.

Impacted Release(s): 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2

4.3.2 0000053912-17024

Issue description: Due to software error in driver , unintended timeout safety error may be reported by Fls_17_Dmu_IsHardeningRequired() API if higher priority task or interrupt is invoked while this API is being executed. This happen only if configuration parameter FeeBlockTypeConfigured is set to FEE_DOUBLE_SECTOR_AND_QUASI_STATIC_DATA

Impact: Unintended timeout safety error from Fls_17_Dmu and hardening error notification from Fee may be reported.

Work around: Ignore the timeout safety error and hardening error notification.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

4.4 General

4.4.1 0000053912-16606

Issue description: Inconsistency in the artefact file names for configuration plugins.

Impact: The filenames are not consistent with AUTOSAR standards, in the usage of uppercase/lowercase, for the following files: Dsadc_PBCfg.h, Dsadc_PBCfg.c, Crc_cfg.c, Iom_PBCfg.c. No functional impact.

Work around: MCAL should be built only on filesystems which are case insensitive like NTFS on Windows

Impacted Release(s): 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

4.4.2 0000053912-16144

Issue description: <CoreScope> is used in MEMMAP macro for constant and config data and hence this violates the Autosar requirements.

Impact: Integration of MCAL with standard Autosar MEMMAP package is not possible. This is because, the memory sections provided by MCAL are abstract memory sections used for implementation of the drivers and the standard MEMMAP package will not have the details of such sections.

Work around: The following options are available to the integrator:

Option 1: Modify the standard MEMMAP package and adapt it for MCAL integration

Option 2: Define new addressing method(s) using "SwAddrMethod"

Step1: Configure the attributes of the SwAddrMethod (namely sectionType, memoryAllocationKeywordPolicy, option and sectionInitializationPolicy) as recommended by the MCAL driver

Step2: Update the references of the abstract memory sections provided by MCAL to the one of the addressing method defined above.

Note: Several different abstract memory section provided by MCAL (across modules) can refer to the same SwAddrMethod, indicating that these abstract sections share a common means of being handled which is further characterized by SwAddrMethod.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

4.5 Hssl

4.5.1 0000053912-16562

Issue description: Due to unreliability of the wake-up functionality, sleep mode for the HSCT is no longer supported and shall not be used.

Impact: User should not invoke Hssl_SetMode API with HSSL_MODE_SLEEP mode.

Work around: Use Hssl_SetMode API to set HSSL module to only HSSL_MODE_INIT or HSSL_MODE_RUN mode.

Impacted Release(s): 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

4.6 I2c

4.6.1 0000053912-17032

Issue description: When I2C driver is in receive mode the PIRQSS.RX bit will be set as normal behavior. But the I2C driver report this normal behavior as error "I2C_ERR_OTHER" to the application.

Impact: Normal case of receive data is indicated as error condition "I2C_ERR_OTHER"

Work around: Application has to ignore the reporting of the error "I2C_ERR_OTHER"

Impacted Release(s): 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

4.7 Lin_17_AscLin

4.7.1 0000053912-17105

Issue description: The order for setting the hardware flags TRRQS and THRQS is not followed in LIN driver software as per hardware user manual recommendation. This caused failure of master response frame transmission, when previous frame was slave response and slave did not response before timeout.

Impact: If the slave node did not response for a slave response frame and the application tries to send a master response frame, then the LIN application cannot send any further LIN frames.

Work around: No work around available.

Impacted Release(s): 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

4.8 Mcu

4.8.1 0000053912-16904

Issue description: Mcu_InitCheck returns E_NOT_OK incorrectly if some GTM configuration parameters are enabled.

Impact: Mcu_InitCheck will compare with the wrong SFR value of TOM/ATOM FUPD_CTRL or INT_TRIG against the configuration. This will result in E_NOT_OK being returned incorrectly.

Work around: User can follow any one of workarounds:

1) Mcu_InitCheck() should not be invoked if any of the configuration parameters GtmAtomChResetCn0OnTriggerEnable, GtmTomChResetCn0OnTriggerEnable, GtmTomChInternalTriggerEnable or GtmAtomChInternalTriggerEnable are set to True

2) Mcu_InitCheck() can be invoked if the configuration parameters GtmAtomChResetCn0OnTriggerEnable, GtmTomChResetCn0OnTriggerEnable, GtmTomChInternalTriggerEnable and GtmAtomChInternalTriggerEnable are set to False

Impacted Release(s): 1.10.0 , 1.30.0 , 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

4.8.2 0000053912-17036

Issue description: Mcu_Init relies on reset value for some GTM SFRs.

Impact: Mcu_Init does not modify the some of the GTM SFRs if modified by user at startup and relies on the reset value. The list of GTM SFRs are :

- TOM[i]_TGC[y]_FUPD_CTRL

- TOM[i]_TGC[y]_INT_TRIG

- ATOM[i]_AGC_FUPD_CTRL

- ATOM[i]_AGC_INT_TRIG

Work around: User shall restore the modified GTM SFRs to the reset value before calling Mcu_Init

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

4.9 Port

4.9.1 0000053912-16783

Issue description: Port_InitCheck() will fail if PORTS_TC.H012 errata is applicable.

Impact: Port_InitCheck will fail since it compares against the configuration values and not the update done by Port_Init() for PORTS_TC.H012 errata workaround.

This error will happen only if below conditions are met :

- PORTS_TC.H012 errata which is applicable only for TC387, TC397, TC397_ADAS devices

- LVDS pair 9,10 is configured

- Port_InitCheck() is called

Work around: Customer can follow any one of the below workarounds :

1) Do not configure LVDS pair 9,10 for the impacted devices.

2) Do not use/call Port_InitCheck() feature if PORTS_TC.H012 errata is applicable.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

4.9.2 0000053912-16680

Issue description: Incorrect code generation for PORTS_TC.H012 Errata fix for TC397 device.

Impact: For TC397 device only, LVDS pair 14.9 and 14.10 will be incorrectly configured for errata PORTS_TC.H012

Work around: User shall not configure LVDS pair P14.9/10 for TC397 device only.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

4.10 Pwm_17_GtmCcu6

4.10.1 0000053912-16675

Issue description: Limitation of PWM driver when PwmHandleShiftByOffset is FALSE

Impact: Channels of TGC or AGC can be shared across other drivers but users of the other drivers or within the PWM driver should not introduce the sequence of referenced fixed period and fixed period shifted channels when PwmHandleShiftByOffset parameter is FALSE or referenced fixed period and fixed period center-aligned channels in-between the other channels sequence. This is because, introducing channel sequence in-between will break the sequence of other channels.

Work around: 1. Customer shall introduce the sequence of channels in between the sequence of other channels but period value of both the referenced fixed period channels should be same and parameter PwmHandleShiftByOffset should be FALSE.

2. Customer shall introduce the sequence of channels in between the other channels sequence when parameter PwmHandleShiftByOffset is TRUE. This workaround is applicable only for sequences of referenced fixed period and fixed period shifted channels.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

4.11 Smu

4.11.1 0000053912-16874

Issue description: For TC33xED devices, SMU Group 6 ALM10 to 12 and Group 7 ALM19 are reserved.

Impact: User can configure SMU alarms for these reserved bits but expected reaction will not be generated for these reserved alarms.

Work around: For TC33xED devices, User shall not configure SMU alarms for SMU Group 6 ALM10 to 12 and Group 7 ALM19.

Impacted Release(s): 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

4.12 Spi

4.12.1 0000053912-16329

Issue description: IB buffer copy during Spi_WriteIB are protected within a critical section.

Impact: In SPI driver IB buffer update is protected within a critical section (ChannelLock) which will disable the interrupt and will not allow any high priority tasks to copy IB buffers associated to a different channel.

Work around: User application can choose not to enable / disable interrupts in the critical sections SchM_Enter_Spi_ChannelLock and SchM_Exit_Spi_ChannelLock calls if buffer is protected by application during buffer copy.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

5 Safety topics v7.0

This section lists safety anomalies and safety related updates related to production releases and maintenance releases.

5.1 HW safety manual

5.1.1 0000053912-16626

Issue description: Impact analysis of AURIX TC3xx Safety Manual v1.12 to MCAL 1.10.0, 1.30.0, 1.40.0 and 2.0.0 production releases.

Impact: No functional or safety impact to products 1.10.0, 1.30.0, 1.40.0 and 2.0.0.

Work around: None.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

5.2 ISO 26262 Argumentation

5.2.1 0000053912-16143

Issue description: In the ISO 26262 Argumentation document, ‘Part 6’ sheet, for '6-8.4.2' clause, in Table 7 : Methods '1a' and '1c' are marked as applicable and methods '1b' and '1d' are tailored out. However, corresponding 'Argumentation' , is incorrectly mapped.

Impact: It’s a typographical error. There is no change in selection of methods. Only mapping of the argumentations is reversed. No functional or safety impact.

Work around: Read as ‘1a’ & ‘1c’ are used and ‘1b’ & ‘1d’ are not used.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

5.3 Safety Case

5.3.1 0000053912-16143

Issue description: In the Safety Case report, As per section 5.3, figure 1, Goal G1.2 is related to "fulfilment of software development requirements". However in section 5.3.2, goal G1.2 is incorrectly mentioned as "fulfilment of safety management requirements". Same is applicable for figure 5.

Impact: It’s a typographical error. No functional or safety impact.

Work around: Read "Goal G1.2 – fulfillment of software development requirements ..." as "Goal G1.2 – fulfillment of software management requirements ..."

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

Impacted AUTOSAR Version(s): AS 4.2.2, AS 4.4.0

6 Known issues v6.0

6.1 ADC

6.1.1 0000053912-16348

Issue description: ADC unavailable channels for TC322, TC332, TC323 and TC333 devices.

Impact: As per TC33x_TC32x_Data_Sheet_Addendum_v1.4.pdf and TC33x_TC32xAA_DS_v10pdf_Z8F70651493_1.0.pdf, ADC channels G1CH2 and G8CH14 are unavailable in TC322, TC332, TC323 and TC333 devices.

Work around: Customer shall not configure ADC channels G1CH2 and G8CH14 in TC322, TC332, TC323 and TC333 devices.

Impacted Release(s): 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.2 Can_17_McmCan

6.2.1 0000053912-15607

Issue description: If Rx objects not configured as mentioned in CAN UM, empty configuration structure may get generated.

Impact: Empty structure will get generated.

Work around: Refer to the configuration rules in CAN UM.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.2.2 0000053912-16125

Issue description: L-Pdu callout function call is done with HOH type as uint8.

Impact: If more than 255 hardware objects are configured then the Hoh id passed to L-Pdu callout will not be correct.

Work around: Maximum Rx HW objects to be configured within 255 OR disable the LPDU feature.

Impacted Release(s): 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.2.3 0000053912-16118

Issue description: During RxFIFO watermark interrupt processing interrupt flags are only cleared if FIFO level is greater than or equal to watermark. If level is crossed during the processing of FIFO watermark interrupt will be retriggered. During 2nd watermark interrupt, watermark interrupt flag will not be cleared if the FIFO level is less than the configured threshold.

Impact: Watermark interrupts will not be triggered instead FIFO Full interrupt will be triggered, successive interrupt will again be watermark interrupt.

Work around: No Workaround.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.3 DMA

6.3.1 0000053912-15686

Issue description: Compiler warnings observed from Dma_DeInit API of DMA driver for single core devices.

Impact: Compiler warnings will be observed from Dma_DeInit API of DMA driver on single core devices. This is due to the multicore error check to ensure other cores are de-initialized before master core is de-initialized. This is redundant check for single core devices.

Work around: The compiler warnings can be prevented by either:

(1) Turning off DmaSafetyEnable and DmaDevErrorDetect or

(2) Turning off DmaDeInitApi

Impacted Release(s): 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.3.2 0000053912-15430

Issue description: DMA does not fulfill the requirement for Spurious interrupt handling.

Impact: DMA driver does not validate the interrupt and report spurious interrupt error. Dma driver will gracefully exit if invalid interrupt occurs.

Work around: Responsibility falls on the user to validate and detect if Dma driver receives an invalid interrupt.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.4 Eth_17_GEthMac

6.4.1 0000053912-15866

Issue description: The carrier sense MII pin cannot be configured in TC364_LQFP device.

Impact: In TC364_LQFP device, the carrier sense MII pin cannot be configured to the correct alternate pin function and due to this, the carrier sense signal may not be detected at the carrier sense MII input pin.

Work around: No workaround for this issue.

Impacted Release(s): 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.5 FEE

6.5.1 0000053912-15935

Issue description: Fee Initial Data Generator Tool generates incorrect hex if the Fee data crosses more than 55K bytes.

Impact: Generated hex file cannot be flashed.

Work around: None.

Impacted Release(s): 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.6 Fls_17_Dmu

6.6.1 0000053912-15390

Issue description: OPER error handling during FLS initialization is not proper. When OPER error is detected during initialization, FEE illegal notification is called, this may lead to unintended safety error or Trap. Only applicable when FLS is used with IFX FEE.

Impact: FEE Safety is ON: Fee will raise UNINT safety error, because of Fee is not yet initialized. In this case illegal state notification will not reach NVM. Also, if FLS runtime error is enabled, then Fls_17_Dmu will report the FLS_17_DMU_E_INIT_FAILED.

FEE Safety is OFF: Trap will occur because of Fee_17_IllegalStateNotification() will try dereference the NULL pointer.

Work around: User shall configure user defined wrapper function instated of Fee_17_IllegalStateNotification() in FlsIllegalStateNotification configuration parameter.

Impacted Release(s): 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.7 General

6.7.1 0000053912-15836

Issue description: Tasking Compiler errata TCVX-44339 and TCVX-44387 analysis.

Impact: Compiler errata issues not seen/reproduced during internal testing of MCAL with the published compiler options. Customer shall analyze the impact of compiler errata TCVX-44339 and TCVX-44387 for their application with MCAL.

Work around: No impact seen in MCAL. Refer workarounds in compiler errata if customer application is affected.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.7.2 0000053912-15839

Issue description: Diab Compiler errata TCDIAB-13360 and TCDIAB-13304 impact analysis.

Impact: 1) TCDIAB-13304 : Optimization of stack not proper. No functional impact.

2) TCDIAB-13360 : MCAL uses "volatile const" qualifiers with pointers to access registers. Compiler vendor confirms this issue does not apply to pointers.

No impact seen to MCAL and issues not seen/reproduced during internal testing of MCAL with the published compiler options. Customer shall analyze the impact of compiler errata for their application with MCAL.

Work around: No impact seen in MCAL. Refer workarounds in compiler errata if customer application is affected.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.7.3 0000053912-16150

Issue description: MCAL build failure on filesystems which are case-sensitive.

Impact: MCAL build will fail on filesystems which are case-sensitive.

Work around: MCAL should be built only on filesystems which are case insensitive like NTFS on Windows.

Impacted Release(s): 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.7.4 0000053912-16151

Issue description: Impact analysis of Tasking 6.2r2p2 compiler erratas - TCVX-43893, TCVX-43916, TCVX-43928

Impact: Issue is not seen/reproduced during internal testing of MCAL with the published compiler options.

Customer SHALL analyze the impact of Tasking 6.2r2p2 compiler erratas TCVX-43893, TCVX-43916, TCVX-43928 for their application with MCAL.

Note: These erratas are fixed in Tasking 6.3r1p1.

Work around: None

Impacted Release(s): 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.7.5 0000053912-13053

Issue description: Compilation error if CONSTP2VAR and CONSTP2CONST macros are used.

Impact: Compilation error will occur for the below macros:

1) CONSTP2CONST - Constant pointer to constant variable

20 CONSTP2VAR - Constant pointer to variable.

Work around: User shall not use CONSTP2VAR and CONSTP2CONST macros.

Impacted Release(s): 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.7.6 0000053912-16659

Issue description: In Demo Release note, the 'Type of Release' field needs correction.

Impact: Wrong understanding of the Release type.

Work around: In Demo Release notes, customer should read the 'Type of Release' as Alpha instead of PR. Section 1.2 renamed from 'Released Items' to 'Package Contents'.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.8 HSSL

6.8.1 0000053912-15411

Issue description: User is not provided with any notification when DMA error occurs during Hssl Multi Write or Hssl Multi Read operation.

Impact: User application will not be able to determine if the data has been successfully transferred or not.

Work around: None

Impacted Release(s): 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.8.2 0000053912-15920

Issue description: NULL_PTR check is in-complete.

Impact: Can lead to trap if the user notifications are not configured.

Work around: Always configure a valid user notification for DMA user callback and Error callback.

Impacted Release(s): 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.9 Lin_17_AscLin

6.9.1 0000053912-16000

Issue description: LIN frames not being transmitted after error is reported due to no response from slave node.

Impact: No further Frames are transmitted after error occurrence.

Work around: Lin_17_AscLin_Init to be called if any error scenario is encountered with DET as OFF to reinitialize the LIN channels accordingly.

Impacted Release(s): 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.10 MCU

6.10.1 0000053912-15987

Issue description: Mcu_Init() overwrites and disables the Standby controller (SCR) module.

Impact: Mcu_Init() overwrites the other bits of PMSWCR4 which disable the SCR module. This impacts the customer who require SCR to remain enabled for standby related purposes like RTC functionality.

Work around: Customer shall not use SCR peripheral.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.10.2 0000053912-15679

Issue description: Mcu_InitCheck() failure for EXTCON register verification.

Impact: DIV1 of EXTCON is wrongly masked in Mcu_InitCheck. The highest 2 MSB bits of DIV1 is always treated as 0., which is incorrect.

Work around: Customer can use either one of the workarounds :

1) DIV1 of EXTCON should not exceed 63 in the configuration of McuFoutClockDiv.

2) Do not call Mcu_InitCheck() if McuFoutClockDiv value > 63.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.11 Pwm_17_GtmCcu6

6.11.1 0000053912-16124

Issue description: GHS compiler reports unreferenced function warning for Pwm_lClearDuty_0_Or_100_Status.

Impact: Pwm_lClearDuty_0_Or_100_Status function will not be referenced resulting in GHS compiler warning. This compiler warning occurs due to configuration combination of below parameters

1) Parameter PwmNotificationSupported is enabled and

2) Parameter PwmSetPeriodAndDuty is enabled and

3) Parameter PwmEnable0Or100DutyNotification is enabled and

4) Parameter PwmSetDutyCycle is disabled

Work around: To resolve the GHS compiler warning, customer can follow one of the workarounds

1) Enable PwmSetPeriodAndDuty and PwmNotificationSupported parameter and disable PwmEnable0Or100DutyNotification parameter

2) Enable PwmSetDutyCycle and PwmNotificationSupported parameter

3) Disable PwmNotificationSupported parameter

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.11.2 0000053912-15992

Issue description: Pwm_17_GtmCcu6_InitCheck() may return false positive.

Impact: ErrorStatus can be overwritten in local functions Pwm_lInitFixedPeriodCheck, Pwm_lInitVariablePeriodCheck and Pwm_lInitShiftedCentreAlignedCheck. If failure occurred in the above local functions, it may get overwritten with E_OK and return false positive result to Pwm_17_GtmCcu6_InitCheck().

Work around: Customer SHALL Disable Pwm_17_GtmCcu6_InitCheck() functionality i.e. configuration parameter PwmInitCheckApi = False.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.12 SENT

6.12.1 0000053912-13274

Issue description: a) In TC397, 20 SENT channels are bonded out (0-14, 17/18, 20-22). However, in TC397 properties file, SENT Channels 0 to 19 are considered.

Holes present in sent channels are not considered in TC397 properties file.

b) In TC397_ADAS, 17 SENT channels are bonded out (0-14, 17/18). However, in TC397_ADAS properties file, SENT Channels 0 to 16 are considered. Holes present in sent channels are not considered in TC397_ADAS properties file.

c) In TC322,TC323,TC332 and TC333 properties file contains device interface signals which are not present in the hardware.

Impact: a) In TC397, few SENT channels (20,21,22) are not selectable in MCAL though provided in the hardware. SENT channels (15,16,19) are listed as configurable channels which should not be selected by the user.

b) In TC397_ADAS, few SENT channels (17,18) are not selectable in MCAL though provided in the hardware. SENT channels (15,16) are listed as configurable channels which should not be selected by the user.

c) In TC322,TC323,TC332 and TC333, device interface signals which are not present in the hardware are listed as configurable interface signals. These signals should not be selected by the user.

Work around: a) In TC397, use only the SENT channels (0-14, 17/18).

b) In TC397_ADAS, use only the SENT channels (0-14).

c) In TC322,TC323,TC332 and TC333, select only the device interface signals which are available in the hardware.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.13 SMU

6.13.1 0000053912-16142

Issue description: Description correction in Smu AoU on Initialization check.

Impact: Smu_LockConfigRegs() need not be called immediately after Smu_InitCheck since user may require to configure the ErrorPin and Release FSP.

Work around: Customer should treat the Smu AoU on Initialization check as "The user shall call the Smu_InitCheck API after initialization but before calling any SMU Runtime API and before releasing vehicle safe state.". Also user shall ensure that the Smu_LockConfigRegs() API is invoked once SMU configuration is completed and no further change in configuration is expected.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.13.2 0000053912-16295

Issue description: Errata SMU_TC.013 - Unexpected setting of Alarm Missed Event bit xAEM in Alarm Executed Status register SMU_AEX

Impact: If the xAEM bit is not cleared while clearing xSTS, only the alarm missed event xAEM functionality will not be available for later alarm events. Please refer SMU_TC.013 for more details.

Work around: Application shall call Smu_ClearAlarmExecutionStatus() to clear the corresponding xSTS. Application can determine if the xAEM bit is set using Smu_GetAlarmExecutionStatus() API and if set, call Smu_ClearAlarmExecutionStatus() to clear the corresponding xAEM bit.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.13.3 0000053912-16345

Issue description: SMU unavailable alarms for TC36x devices.

Impact: As per TC36x_appx_um_v1.6.pdf, SMU alarms ALM7[12:16] and ALM11[0:1] are unavailable in TC36x devices.

Work around: Customer shall not configure SMU alarms ALM7[12:16] and ALM11[0:1] in TC36x devices.

Impacted Release(s): 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.14 SPI

6.14.1 0000053912-16245

Issue description: UM limitation description on TRL-lost is ambiguous and needs to be corrected.

Impact: The TRL interrupt does occur, however its processing and further notification to the user (from DMA module) is avoided in case DmaTcsInterruptTransactionLoss is disabled.

Work around: Not Applicable.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.14.2 0000053912-15999

Issue description: Spi_SetupEB datatype mismatch of DesDataBufferPtr-argument in MCAL-UM.

Impact: EB buffer pointers will not be stored as intended since function definition is different from UM description.

Work around: Refer to Spi.h for Spi_SetupEB prototype for calling the API.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.14.3 0000053912-16036

Issue description: QSPI2 doesn’t have QSPI2_MTSR pin available in TQFP-80 package.

Impact: QSPI2 node for TC322 device cannot be used.

Work around: Use QSPI0, 1 instead of QSPI2.

Impacted Release(s): 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.14.4 0000053912-16709

Issue description: If the sequence contains 1 Job, 1 channel with short data length (2 to 8bits) and a very small lead delay (in nsec) there is a possibility that sequence status will remain in pending state indefinitely.

Impact: Successive transmission of sequences is not possible since the SPI driver will be stuck indefinitely due to sequence stuck in pending state.

Work around: Increase lead delay and keep interrupts disabled for PT2 ISR so that PT2 flag is cleared before the job is completed.

Impacted Release(s): 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.15 UART

6.15.1 0000053912-15740

Issue description: Inconsistent default values given for UartAutoCalcBaudParams, UartChanBaudPrescalar and UartRunTimeErrorDetect parameters in xdm and SAS. Inconsistent ranges given for UartParityBit parameter in xdm and SAS.

Impact: Tresos does not generate expected code for the default settings of the parameters.

Work around: User need to update the expected values manually in the parameters before generation.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

6.15.2 0000053912-15516

Issue description: Irrelevant information related to PortPinControllerSelect parameter is present in Uart UM document.

Impact: As per UM, User will expect this parameter needs to be configured in the port section though not needed by UART driver.

Work around: User need to ignore PortPinControllerSelect parameter configuration in Tresos.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

7 Safety topics v6.0

This section lists safety anomalies and safety related updates related to production releases and maintenance releases.

7.1 HW safety manual

7.1.1 0000053912-16626

Issue description: Impact analysis of AURIX TC3xx Safety Manual 1.12 to existing production releases.

Impact: No impact.

Work around: None.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

7.1.2 0000053912-16025

Issue description: Impact analysis of AURIX TC3xx Safety Manual 1.11 to existing production releases.

Impact: No impact.

Work around: None.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8 Known issues v5.0

8.1 Can_17_McmCan

8.1.1 0000053912-7293

Issue description: Can_17_McmCan_Write, return values of local functions are overwritten by internal calls.

Impact: Can_17_McmCan_Write, return values of local functions are overwritten by internal calls.

Work around: Disable CAN_17_MCMCAN_TRIG_TRANSMIT feature and use Can_17_McmCan_Write API OR Can_17_McmCan_Write to be called once the write object acknowledgement is received to Can_If layer.

Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.1.2 0000053912-6697

Issue description: CAN driver stuck after bus off, if message transmitted immediately after busoff recovery.

Impact: Messages accepted for transfer from driver will not be transmitted on physical interface.

Work around: Upper layer need to ignore if multiple notifications are provided by driver for bus-off recovery.

Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.1.3 0000053912-5999

Issue description: The BSWMD generation is erroneous and takes 5ms irrespective of the timing configured in the plugins. This is due to incorrect logic in the BSWMD generator.

Impact: Irrespective of the time set the user always gets the default value of 5ms.

Work around: User need to manually edit the timing after RTE generation OR move to 1.40 release version.

Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.2 CanTrcv_17_V9251

8.2.1 0000053912-12336

Issue description: In tresos, option to add new element is not available in CanTrcvWaitTime and CanTrcvTimerType containers.

Impact: User is not able to add the elements in CanTrcvWaitTime and CanTrcvTimerType containers.

Work around: While creating tresos project, if the option "Automatically add the minimum number of child elements in lists" is enabled, issue is resolved.

Impacted Release(s): 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.3 CanTrcv_17_W9255

8.3.1 0000053912-12770

Issue description: As per Autosar specification CanTrcvWakeupByBusUsed parameter should be used as a Boolean parameter but in CanTrcv_17_W9255.xdm this parameter is added as a List parameter due to which error is reported during code generation.

Impact: Code generation will not proceed, so build error will be observed.

Work around: CanTrcvWakeupByBusUsed parameter is of type list so user code need to search for this parameter as list type instead of variable type in upper layer code.

Impacted Release(s): 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.4 DMA

8.4.1 0000053912-13446

Issue description: Dma UM : Wrong AoU "Pattern detection not supported".

Impact: "Pattern detection not supported" is an unsupported feature and has been wrongly placed in AoU section.

Work around: User shall disregard the "Pattern detection not supported" in DMA AoU section.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.5 FEE

8.5.1 0000053912-12595

Issue description: Fee cycle calculator formulas not populated in all cells.

Impact: For some of the cells the value will not be calculated.

Work around: None.

Impacted Release(s): 1.30.0 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.5.2 0000053912-13370

Issue description: Fee initial data tool does not generate segment record correctly in the hex file before the sector 1 record.

Impact: Hex file generated does not flash correctly.

Work around: None.

Impacted Release(s): 1.30.0 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.6 Fls_17_Dmu

8.6.1 0000053912-6053

Issue description: Run time error not reported when Erase/Write Command cycle timeout happens.

Impact: No functional impact. Only reporting of the runtime error for the erase/write command cycles timeout will not happen. The return value will be E_NOT_OK and the callback to the configured error notification function will happen.

Work around: None.

Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.6.2 0000053912-6000

Issue description: Resume command cycle timeout error is not detected during resume erase operation.

Impact: If resume command cycle timeout error occurs, Fls_17_Dmu_ResumeErase API returns E_OK wrongly, which may lead to incorrect job (erase) end notification for suspended erase job.

Work around: Do not use erase suspend feature.

Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.7 Fr_17_Eray

8.7.1 0000053912-13005

Issue description: The configuration parameters FrRxInputSelectionA & FrRxInputSelectionB allow selection of unavailable receive channels also in the supported FR controllers across all the devices. For example, in TC3E7 device for ERAY1, only FR_RXSEL0 selection is possible for both the parameters FrRxInputSelectionA & FrRxInputSelectionB as per HW User Manual. However, all receive channels (FR_RXSEL0, FR_RXSEL1, FR_RXSEL2 & FR_RXSEL3) are made available for these configuration parameters.

Impact: The user may select unavailable receive channels during configuration for the parameters FrRxInputSelectionA & FrRxInputSelectionB. This selection is invalid and FR communication will not work.

Work around: The user needs to check the supported receive channels for the device from the HW User Manual and configure the parameters FrRxInputSelectionA & FrRxInputSelectionB accordingly.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.8 General

8.8.1 0000053912-15350

Issue description: Module header files SHALL NOT include the prototype declarations of MainFunctions.

Impact: Main function declaration is provided in the <mod>.h file instead of <Mod>_Schm.h file.

Work around: User should include the <Mod>.h file which has the Main function declaration.

Impacted Modules: SPI, UART, CanTrcv_17_W9255, FEE, Eth_17_GEthMac, Can_17_McmCan

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.8.2 0000053912-12772

Issue description: Boost license added in SFR files.

Impact: Additional boost license introduced in SFR files along with Infineon file banner.

Work around: None.

Impacted Release(s): 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.9 HSSL

8.9.1 0000053912-12827

Issue description: DET HSSL_E_NOT_INITIALIZED= 0x01 is not raised when module API services are called before successful initialization (API : Hssl_Init).

Impact: Without module init, if any other API is called with valid parameter functionality will be executed and results are unpredictable.

Work around: Always initialize the module and check if it is successful before calling other API of HSSL.

Impacted Release(s): 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.10 I2C

8.10.1 0000053912-7140

Issue description: TC397_ADAS and TC397 devices are not supported.

Impact: Above mentioned devices cannot be configured.

Work around: Move to later version of release, 1.30.0 onwards.

Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.11 Lin_17_AscLin

8.11.1 0000053912-8615

Issue description: LIN_RX_ERROR is returned if No-response is received from slave instead of RX_NO_RESPONSE.

Impact: If LinIf layer has a mechanism to handle both error responses differently, code always executes for LIN_RX_ERROR though no data response is received.

Work around: Handle both the error LIN_RX_ERROR and RX_NO_RESPONSE similarly at LinIf implementation, or use the 1.30.0, 1.40.0 version of release since this bug is fixed in later versions.

Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.11.2 0000053912-13290

Issue description: When Sleep command is sent, illegal checksum issue is seen.

Impact: No valid checksum will be reported when sleep command is sent.

Work around: None.

Impacted Release(s): 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.12 MCALLIB

8.12.1 0000053912-14150

Issue description: Mcal_WriteCpuEndInitProtReg, Mcal_WriteSafetyEndInitProtReg and Mcal_WriteSafetyEndInitProtRegMask APIs description update to additionally support endinit protected CSFRs.

Impact: In addition to writing endinit protected peripheral SFRs, Mcal_WriteCpuEndInitProtReg, Mcal_WriteSafetyEndInitProtReg and Mcal_WriteSafetyEndInitProtRegMask APIs support write access to endinit protected CSFRs (using MTCR operation) which is missed in respective API description.

Work around: None (only editorial correction).

Impacted Release(s): 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.12.2 0000053912-13551

Issue description: Mcal_WriteSafetyEndInitProtRegMask() does not mask the "DataValue".

Impact: Mcal_WriteSafetyEndInitProtRegMask() does not mask the "DataValue" and undesired bits might be set in the register.

Work around: Customer shall ensure the "DataValue" input parameter configures the desired bits as per the "Mask" to be written in the register.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.13 MCU

8.13.1 0000053912-12914

Issue description: Incorrect code generation error for GTM for clusters 5 and above.

Impact: Cluster Clock frequency should be <=100 MHZ for GTM clusters 5 and above.

Currently, Mcu plugin reports incorrect code generation error if GtmCmuClusterInputClockDividerEnable = CLS_CLK_CFG_ENABLED_WITHOUT_DIV_SEL1 for GTM cluster 5 and above, even though Cluster clock frequency is <= 100MHz.

Work around: User shall select cluster clock frequency with GtmCmuClusterInputClockDividerEnable = CLS_CLK_CFG_ENABLED_WITH_DIV_SEL2 for GTM cluster 5 and above if used.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.13.2 0000053912-13562

Issue description: List of SMU Alarm names to be provided in AoU.

Impact: The AoU to disable SMU alarms relating to the clock tree do not specify the alarm names.

Work around: The AoU should be treated as :

User shall disable the SMU alarms relating to the clock tree before calling the Mcu_InitClock() and Mcu_DistributePllClock() APIs and re-configure to user setting after the successful execution of both the APIs. The following SMU alarms related to clock are:

ALM21[15] - PLLx/fSPB alive (where x: 0,1,2)

ALM8[0] - OSC clock frequency out of range

ALM8[1] - Back-up clock out-of-range alarm

ALM8[2] - Back-up clock alive alarm

ALM8[3] - System PLL DCO loss of lock event

ALM8[4] - Peripheral PLL DCO loss of lock event

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.13.3 0000053912-12690

Issue description: Mcu initialization and Mcu_InitCheck independence restricted to clock initialization only.

Impact: Mcu initialization (Mcu_Init(), Mcu_InitClock(), Mcu_DistributePllClock() functions) and Mcu_InitCheck independence has been analyzedok will rephrase only with respect to clock initialization. It has not considered the other aspects of Mcu_Init like GTM initialization etc.

Work around: The claim of Mcu initialization and Mcu_InitCheck independence is limited to clock initialization only.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.13.4 0000053912-13134

Issue description: Mcu.fERAYExists property plugin incorrect in 32x devices.

Impact: As ERAY hardware is not present in 32x, Mcu.fERAYExists property variable should be false for TC32X devices.

Work around: For 32x devices, user shall ignore Eray specific clock configuration in Mcu plugin.

Impacted Release(s): 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.14 OCU

8.14.1 0000053912-13010

Issue description: AUTOSAR violation with respect to multiplicity of OCU configuration parameters.

Impact: Ocu plugin have conditional expression for the upper multiplicity of below AUTOSAR configuration parameters:

- OcuNotification

- OcuHardwareTriggeredAdc

- OcuHardwareTriggeredDMA

- OcuOutputPinDefaultState

BMD users cannot use the configuration parameters if upper multiplicity is 0.

Work around: User can ensure the upper multiplicity becomes 1 by following below steps:

- To enable OcuHardwareTriggeredAdc, assign GtmTimerClockSelect to GTM_TBU_TS0, or GTM_TBU_TS1 or GTM_TBU_TS0 for the allocated OCU GTM channel

- To enable OcuHardwareTriggeredDMA, ensure GtmTimerClockSelect is not assigned to GTM_TBU_TS0, or GTM_TBU_TS1 or GTM_TBU_TS0 for the allocated OCU GTM channel

- To enable OcuNotification, ensure OcuNotificationSupported is enabled and OcuHardwareTriggeredDMA is not configured.

- To enable OcuOutputPinDefaultState, ensure OcuOuptutPinUsed is enabled.

Impacted Release(s): 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.15 PORT

8.15.1 0000053912-13264

Issue description: Incorrect Port configuration in TC366, TC327 and TC337 devices.

Impact:

1) In TC366 device, Port 11 pins 2,3 & 6 are wrongly mapped to FAST. These should be RFAST pins.

2) In TC327 and TC337 devices, P14.9 is wrongly mapped to SLOW. This should be FAST.

Work around:

1) In TC366 device, user should not use Port 11.2, 11.3 & 11.6 for RFAST speed grade.

2) In TC327 and TC337 devices, user should not use P14.9 for FAST speed grade.

Impacted Release(s): 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.15.2 0000053912-15247

Issue description: Configuration parameter PortLVDSTxPowerDownPullDown range values mismatch between Code (Port.xdm) and UM.

Impact: Configuration parameter range ambiguity between code and UM.

Work around: User should follow the value mentioned in the schema.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.16 Pwm_17_GtmCcu6

8.16.1 0000053912-11103

Issue description: Glitch possible during Pwm_Init for ATOM fixed period/variable period channels.

Impact: Glitch is observed during Pwm_Init only for ATOM fixed period/variable period channels with shifted channels handled by offset (PwmHandleShiftByOffset = true) and with polarity

LOW(PwmPolarity = PWM_LOW).

Work around: Allocate the PWM channels to TOM or CCU6 instead of ATOM.

Impacted Release(s): 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.17 SMU

8.17.1 0000053912-15058

Issue description: Smu_ClearAlarmStatus will incorrectly disable SMU_stdby.

Impact: Smu_ClearAlarmStatus will disable SMU_stdby Module (SMUEN bit = 0) in addition to clearing the SMU alarm.

Work around: Customer shall not use SMU_Stdby module features.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.18 SPI

8.18.1 0000053912-11379

Issue description: Default value of xdm file and UM documents are not in sync for SpiIdleTime, SpiTrailingTime and SpiTimeClk2Cs.

Impact: Much lower delay will be allowed to be configured since the start range is lower value.

Work around: Use values as defined by SAS.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.18.2 0000053912-12998

Issue description: If QSPI error occurs, the error is handled via IsrQspiError handler in which all ther error flgs are cleared in the GLOBALCON register. At this time, if another QSPI error comes before the current ISR is completed, then there is a possibility that a SPI_E_SAFETY_SPURIOUS_INTERRUPT is reported.

Impact: If QSPI error occurs, the error is handled via IsrQspiError handler in which all ther error flgs are cleared in the GLOBALCON register. At this time, if another QSPI error comes before the current ISR is completed, then there is a possibility that a SPI_E_SAFETY_SPURIOUS_INTERRUPT is reported.

Work around: Ignore the SPI_E_SAFETY_SPURIOUS_INTERRUPT if DEM SPI_E_HARDWARE_ERROR is reported as FAILED.

Impacted Release(s): 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.18.3 0000053912-13315

Issue description: The QSPI RX FIFO overflows due to DMA congestion.The RX FIFO overflow error triggered on QSPI, due to high priority DMA transfers.

Impact: The transmission and Reception of a sequence will be incomplete due to the error getting triggered and respective job and sequence status will be FAILED.\

Work around: In order to prevent QSPI RX FIFO overflow the SRF bit in GLOBALCON register is enabled.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.19 Wdg_17_Scu

8.19.1 0000053912-15054

Issue description: Wdg_17_Scu_InitCheck() will fail if debugger is connected and Suspend mode if OFF (disabling the Wdg timer).

Impact: If debugger is connected and suspend mode is OFF, it will disable the WDG timer causing Wdg_17_Scu_InitCheck() to fail. The reload value will be at 0xFFC and will not match the configured reload value.

Work around: Do not call Wdg_17_Scu_InitCheck() if debugger is connected with Suspend OFF.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

8.19.2 0000053912-15251

Issue description: Wdg_17_Scu_InitCheck() will fail if the WDG timer reload value has incremented after Wdg_17_Scu_Init().

Impact: Wdg_17_Scu_InitCheck() will fail since it does an exact comparison of the timer reload value to the configured reload value.

Work around: Invoke Wdg_17_Scu_InitCheck() immediately after Wdg_17_Scu_Init().

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

9 Safety topics v5.0

This section lists safety anomalies and safety related updates related to production releases and maintenance releases.

9.1 HW safety manual

9.1.1 0000053912-13493

Issue description: Impact analysis of AURIX TC3xx Safety Manual 1.10 to MCAL 1.10.0, 1.30.0 and 1.40.0 production releases.

Impact: No functional or safety impact to products 1.10.0, 1.30,0 and 1.40.0

Work around: None.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

9.1.2 0000053912-12177

Issue description: ESM[SW]:DMA:ERROR_HANDLING description insufficient.

Impact: User manual information for ESM[SW]:DMA:ERROR_HANDLING is incomplete.

Work around:

The application shall supervise the DMA RP Error Interrupt Service Request. The application shall read the DMA move engine error registers ERRSR0 and ERRSR1 before invoking the interrupt handler provided by DMA. This is to determine the error cause and the DMA channel number which caused the RP error. The sequence is as below:

- Move engine error occurs in hardware

- RP ISR is triggered

- Application reads the error flags in ERRSRm for determining the error cause and ERRSRm.LEC for determining the DMA channel number that caused the error.

- Call Dma_MEInterruptDispatcher

- On return from Dma_MEInterruptDispatcher, Application shall take necessary action(to stop the channel transfer recommend to use Dma_StopTransfer)

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

9.1.3 0000053912-8814

Issue description: ESM[SW]:DMA:ERROR_HANDLING description insufficient.

Impact: User manual information is incomplete about handling DMA errors while using SPI and DMA drivers together.

Work around: The application shall supervise the DMA RP Error Interrupt Service Request. The application shall read the DMA move engine error registers ERRSR0 and ERRSR1 before invoking the interrupt handler provided by DMA. This is to determine the error cause and the DMA channel number which caused the RP error.
The sequence is as below:
- Move engine error occurs in hardware
- RP ISR is triggered
- Application reads the error flags in ERRSRm for determining the error cause and ERRSRm.LEC for determining the DMA channel number that caused the error.
- Call Dma_MEInterruptDispatcher
- On return from Dma_MEInterruptDispatcher, Application shall take necessary action.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

10 Known issues v4.0

10.1 Can_17_McmCan

10.1.1 0000053912-11728

Issue description: Each CAN kernel has a dedicated message RAM shared between the controllers associated with the kernel. The message RAM associated with each kernel has a start and end boundary. The RX and TX hardware object configuration associated with the hardware objects should take care that this message RAM boundary is not exceeded. However in case the message RAM end address of one kernel overlaps with that of another, there is no error message flagged during generation of code. Hence the configuration errors result in an overlap of message RAM boundaries leading to mismatched hardware object configuration.

Impact: The user shall not know that an incorrect configuration has been made and the message RAM boundaries have overlapped.

Work around: The user shall ensure by checking the generated files the start and end addresses of the message RAM for each kernel.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.1.2 0000053912-10616

Issue description: In CAN driver uses references of MCU parameters. The DESTINATION-REF path has an incorrect reference of AUTOSAR for IFX specific parameters. This reference should be AURIX2G.

Impact: Incorrect BMD reference path leading to schema violations.

Work around: No workaround.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.2 CanTrcv_17_V9251

10.2.1 0000053912-12336

Issue description: In tresos, option to add new element is not available in CanTrcvWaitTime and CanTrcvTimerType containers.

Impact: User is not able to add the elements in CanTrcvWaitTime and CanTrcvTimerType containers.

Work around:
While creating tresos project, if the option "Automatically add the minimum number of child elements in lists" is enabled, issue is resolved.

Impacted Release(s): 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.3 Crc

10.3.1 0000053912-8823

Issue description: SMC[SW]:FCE:CRC_CFG safety measure to be handled by integrator.

Impact: No impact to CRC driver. User shall implement the safety measure described in SMC[SW]:FCE:CRC_CFG.

Work around:
Integrator/User shall compare the expected CRC and the calculated CRC provided by CRC driver. If mismatch in CRC results, integrator/user shall take appropriate actions.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.4 Dma

10.4.1 0000053912-12349

Issue description: Incorrect documentation of ASIL level for Dma_ChInterruptHandler() and Dma_MEInterruptDispatcher().

Impact: No functional impact. ASIL level for Dma_ChInterruptHandler() and Dma_MEInterruptDispatcher() should be ASIL B, instead of QM.

Work around:
Customer shall treat the ASIL level of Dma_ChInterruptHandler() and Dma_MEInterruptDispatcher() as ASIL B.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.5 Eth_17_GEthMac

10.5.1 0000053912-11663

Issue description:

As per GETH_TC.P001, Ethernet frequency operating range changed to 100 - 150 MHz from 150 - 200 MHz.

Impact: User can configure wrong operation conditions for Ethernet frequency if > 150 MHz and may impact the Ethernet IP functionality.

Work around:

User shall configure Ethernet Frequency only as 150MHz.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.6 Fee

10.6.1 0000053912-12347

Issue description:

When NVM block read request is made while QS block erase is ongoing in the hardware and if suspending the ongoing erase fails, then the NVM block read request will be rejected with E_NOT_OK along with DET error FEE_E_BUSY or Safety error FEE_SE_BUSY.

Impact: Unintended DET or safety error (FEE_E_BUSY\FEE_SE_BUSY) is reported.

Work around:

Do not use following combination of features together:

1. Both NVM and QS blocks are configured

2. Erase suspend feature is enabled

3. Safety errors or DETs are enabled

OR

Ignore FEE_E_BUSY or FEE_SE_BUSY in the above scenario based on E_NOT_OK returned by Fee_Read() API.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.7 Fls_17_Dmu

10.7.1 0000053912-12506

Issue description: In the Example code presented in the user manual, the call to Fls_17_Dmu_Write () function is incorrect. The parameter pass to this function are not in the correct order.

Impact:

If the customer uses the same example mentioned in the user manual, then

1. If DET/Safety is enabled, FLS_17_DMU_E_PARAM_ADDRESS DET will be raised.

2. If DET/Safety is disabled then incorrect behavior will occur and may lead to trap.

Work around:

Refer to the prototype of API Fls_17_Dmu Write() as describe in user manual and pass the parameters in the order described.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.7.2 0000053912-12152

Issue description:

Due to improper handling of OPER error in interrupt mode , driver may get stuck in busy state.

Pre-condition: FLS is configured in Interrupt mode and DET/Safety is disabled.

Impact: Driver will get stuck in busy state.

Work around:

User can use one of the following workaround.

Workaround 1: Enable DET/Safety , this will give the timeout DET notification. When user receive timeout notification, he can use Fls_17_Dmu_GetOperStatus to determine if an OPER has occurred. If OPER error has occurred, then user should initiate a system reset to clear the OPER error.

Workaround 2: User should implement a timeout mechanism. When timeout occurs, application should call Fls_17_Dmu_GetOperStatus to determine if an OPER has occurred. If OPER error has occurred, then user should initiate a system reset to clear the OPER error.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.7.3 0000053912-12507

Issue description: FLS_E_PARAM_DATA is also reported when the SourceAddressPtr is not word aligned (4 byte aligned). This information is missing in the error handling description of Fls_17_Dmu_Write API.

Impact: User may not be able to find out the reason why FLS_E_PARAM_DATA DET is reported even when the SourceAddressPtr passed is not NULL.

Work around:

If FLS_E_PARAM_DATA DET is reported, user has to check whether the SourceAddressPtr passed is word-aligned and not NULL.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.7.4 0000053912-12365

Issue description: When configuration parameter FlsIfxFeeUse is not enabled and if erase operation fails due to EVER error, runtime error FLS_17_DMU_E_ERASE_FAILED is not reported.

Impact: Run time error FLS_17_DMU_E_ERASE_FAILED is not reported.

Work around: User should use the job error notification to mean that erase failed.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.8 General

10.8.1 0000053912-8815

Issue description: SMC[SW]:SCU:ERU_CONFIG ESM is not supported by MCAL.

Impact:

SMC[SW]:SCU:ERU_CONFIG ESM is not supported by MCAL and wrongly documented in MCAL User manual. This may cause confusion to integrator.

Work around:

Customer shall implement the SMC[SW]:SCU:ERU_CONFIG ESM if required for their use case.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.8.2 0000053912-12030

Issue description: IRQ configuration not supported for Can_17_McmCan, Eth_17_GEthMac, I2c, Sent, Adc, Lin_17_AscLin and Uart modules.

Impact:

1) User cannot configure IRQ configurations for modules like Ethernet, CAN, VADC, I2C and ASCLIN.

Impacted devices are :

TC356_ADAS - ETH, ASCLIN, I2C, VADC, CAN

TC357_ADAS - ETH,ASCLIN,I2C,VADC,CAN

TC364_LQFP - ETH,ASCLIN,I2C,VADC,CAN

TC364_TQFP - ETH,ASCLIN,I2C,VADC,CAN

TC365 - ETH,ASCLIN,I2C,VADC,CAN

TC366 - ETH,ASCLIN,I2C,VADC,CAN

TC367 - ETH,ASCLIN,I2C,VADC,CAN

TC375 - ETH,ASCLIN,VADC,CAN

TC377 - ETH,ASCLIN,VADC,CAN

TC375_ED - ETH,ASCLIN,VADC,CAN

TC377_ED - ETH,ASCLIN,VADC,CAN

TC377_ED_EX - ETH,ASCLIN,VADC,CAN

TC387 - ETH,ASCLIN,I2C,VADC,CAN

TC389 - ETH,ASCLIN,I2C,VADC,CAN

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TC397 - ETH,ASCLIN,I2C,VADC,CAN

TC397_ADAS - ETH,ASCLIN,I2C,VADC,CAN

TC399 - ETH,ASCLIN,I2C,VADC,CAN

2) For TC374_ED, additional SENT IRQ connections provided which do not exist in the device.

3) For TC32x and TC33x devices, SENT IRQ connections increased to support 0 - 9 available SRNs.

Work around:

1) User cannot use interrupt modes for missing modules.

2) User shall not configure Sent interrupt connections > 9

3) User can only use the SRNs as provided in the configuration.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.9 Icu_17_TimerIp

10.9.1 0000053912-12024

Issue description: Configuration missing for Tim Channels in TC375, TC375_ED and TC374_ED variants.

Impact:

User cannot configure the below TIM channels :

1) TIM4_CH1 and TIM4_CH7 for TC374_ED variant

2) TIM5_CH0, TIM5_CH1, TIM5_CH2, TIM5_CH3 for TC375, TC375_ED and TC374_ED variants.

User also cannot configure the above missing TIM channels input as previous TIM channel's input.

Work around:

User shall ensure to achieve ICU driver functionality with the TIM channels as provided/available in the configuration.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.10 Mcu

10.10.1 0000053912-12344

Issue description: Incorrect Tresos description for McuClockReferencePointFrequency2

Impact:

No functional impact.
Tresos description for McuClockReferencePointFrequency2 (fPLL2) should be calculated as :
fPLL2 = ((N+1)* fOSC)/((P+1) * (K3 + 1)* 1, 6) if McuPll2DivSelect= MCU_K3_DIV_FACTOR_NOT_BYPASSED_SEL0
OR
fPLL2 = ((N+1)* fOSC) / ((P+1) * (K3 + 1)) if McuPll2DivSelect= MCU_K3_DIV_FACTOR_BYPASSED_SEL1
Work around:

User shall configure the McuClockReferencePointFrequency2 as per the above equation.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.10.2 0000053912-11679

Issue description: Mcu plugin issue for TC375, TC375_ED and TC374_ED derivatives.

Impact:

Code generation failure occurs since error is reported for MCU plugin. This applies for TC375, TC375_ED and TC374_ED derivatives.
Work around:

Customer cannot use Mcu plugin configuration for TC375, TC375_ED and TC374_ED derivatives.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.10.3 0000053912-11550

Issue description: DCO Input frequency range increased to 10 - 40 MHz from 16 - 40 MHz.

Impact:

For all A2G variants, DCO Input frequency range increased from 16 - 40 MHz to 10 - 40 MHz . But MCU code generation plugin only supports in the range of 16 - 40 MHz.

Work around:

User needs to configure DCO Input frequency in the provided range of 16 - 40 MHz only.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.10.4 0000053912-11663

Issue description: As per GETH_TC.P001, Ethernet frequency operating range changed to 100 - 150 MHz from 150 - 200 MHz.

Impact:

User can configure wrong operation conditions for Ethernet frequency if > 150 MHz and may impact the Ethernet IP functionality.

Work around:

User shall configure Ethernet Frequency only as 150MHz.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.11 Sent

10.11.1 0000053912-12426

Issue description: In TC387, 20 SENT channels are bonded out(0-14, 17/18, 20-22).However in TC387 properties file, SENT Channels 0 to 19 are considered.

Holes present in sent channels are not considered in TC387 properties file.

Impact:

In TC387, few SENT channels (20,21,22) are not selectable in MCAL though provided in the hardware. SENT channels (15,16,19) are listed as configurable channels which should not be selected by the user.

Work around:

Use only the SENT channels (0-14, 17/18).

Impacted Release(s): 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.12 Smu

10.12.1 0000053912-12189

Issue description: Smu_SetAlarmAction() does not support disable of FSP action.

Impact: User cannot disable FSP action at runtime using Smu_SetAlarmAction() API.

Work around:

Users shall configure the FSP action during SMU initialization and not change the FSP action at runtime.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.13 Spi

10.13.1 0000053912-10645

Issue description: Calling Spi_Cancel() cancels the successive job of ongoing sequence being transmitted and updates the sequence status to cancelled. However updating the QSPI HW unit status to IDLE only happens once the ongoing job transmission is completed. So calling Spi_GetHwUnitStatus or Spi_GetStatus immediately after Spi_Cancel will return SPI_BUSY due to ongoing job.

Impact:

Calling Spi_GetHwUnitStatus or Spi_GetStatus immediately after Spi_Cancel in case of only single sequence/last sequence will return SPI_BUSY.

Work around:

User must call Spi_GetHwUnitStatus or Spi_GetStatus and wait untill the API returns SPI_IDLE.

Impacted Release(s): 1.10.0,1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.13.2 0000053912-12064

Issue description: Trap occurs in SPI when DMA error interrupts occur on multiple channels across cores.

Impact:

If DMA move engine error occurs simultaneously on multiple SPI channels, a trap would occur in SPI driver if DMA interrupt error is less than any of the SPI interrupts.

Work around:

Interrupt priority of DMA and SPI shall be of order : DmaError > QspiError > Tx > Rx > PT2.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.13.3 0000053912-12218

Issue description: SPI_E_UNINIT DET reported from Spi_MainFunction_Handling.

Impact: DET reported when Spi_MainFunction_Handling is called when SPI module is not initialized.

Work around: SPI_E_UNIT DET when reported from Spi_MainFunction_Handling to be ignored by the application software.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.14 Uart

10.14.1 0000053912-12037

Issue description: If CTS pin is not used for handshaking in UART, NONE option is missed in BMD files.

Impact: User need to select one of the pin from the list.

Work around: If UartCTSEnable option is disabled, any pin selected will not have impact on the generated code.

Impacted Release(s): 1.10.0,1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

10.15 Wdg_17_Scu

10.15.1 0000053912-12307

Issue description: Incorrect information provided in WDG UM.

Impact:

In WDG UM, "system WDT" is mentioned in Hardware-software mapping chapter. The "system WDT" peripheral does not exist and should be renamed as "Safety WDT".

Work around: User shall interpret "system WDT" as "Safety WDT".

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

11 Safety topics v4.0

This section lists safety anomalies and safety related updates related to production releases and maintenance releases.

11.1 HW safety manual

11.1.1 0000053912-8814

Issue description: ESM[SW]:DMA:ERROR_HANDLING description insufficient.

Impact:

User manual information is incomplete.
Work around:

Customer to use the workaround as mentioned below:

About handling DMA errors when using of SPI and DMA drivers together (Ref:ESM[SW]:DMA:ERROR_HANDLING):

Limitation:

The below limitation is applicable if SPI uses the DMA driver for asynchronous transmission:

Whenever the DMA channel used by SPI driver encounters an error, the DMA driver notifies the error along with the channel information to the SPI driver. However, due to the limitation in the error notification interface from SPI to the application, the SPI driver notifies the same error to the application without the DMA channel information.

Workaround:

The application shall supervise the DMA RP Error Interrupt Service Request. The application shall read the DMA move engine error registers ERRSR0 and ERRSR1 before invoking the interrupt handler provided by DMA. This is to determine the error cause and the DMA channel number which caused the RP error. The sequence is as below:

- Move engine error occurs in hardware

- RP ISR is triggered

- Application reads the error flags in ERRSRm for determining the error cause and ERRSRm.LEC for determining the DMA channel number that caused the error.

- Call Dma_MEInterruptDispatcher

- On return from Dma_MEInterruptDispatcher, Application shall take necessary action.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

11.1.2 0000053912-8816

Issue description: Clarity to achieve SMC[SW]:SMU:CONFIG is incomplete in SW User Manual.

Impact:

In SW User Manual, documentation clarity to achieve SMC[SW]:SMU:CONFIG is incomplete. AoU to be added, see AoU text in Workaround.

Work around:

AoU: Customer shall ensure to enable 'SmuStdbyEnable' in SMU driver configuration to achieve SMC[SW]:SMU:CONFIG ESM.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

12 Known issues v3.0

12.1 ADC

12.1.1 0000053912-9946

Issue description: HSPDM Input Trigger configuration support given for unsupported devices in ADC.

Impact: HSPDM module is not available in the following devices i.e. TC38x devices, TC37x devices and TC36x devices, hence trigger of HSPDM is not possible from the unsupported devices if configured.

Work around:

User should not configure the HSPDM as a trigger source from the following HSPDM unsupported devices. i.e. TC38x devices, TC37x devices and TC36x devices.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.2 CAN

12.2.1 0000053912-10694

Issue description: When Can module is initialized again from the same core, the DET CAN_17_MCMCAN_E_TRANSITION is not reported.

Impact: Unnecessary re-initialization sequence retriggered.

Work around:

The user shall ensure that Can_17_McmCan_Init is called only once from the same core.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.2.2 0000053912-10858

Issue description: CAN11 RX selection value is missed in AURIX2G_TC366.properties file.

Impact: There is an additional option of CAN11_RXDA which is made unavailable in the current configuration. Hence the user is able to use only CAN11_RXDB.

Work around:

The user shall use the CAN11_RXDB when using controller 1 of kernel 1.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.2.3 0000053912-10749

Issue description: Main Function Period is generated incorrectly in bswmd arxml file.

Impact: In case of polling function the period configured is not generated in the bswmd arxml as configured and only the default value of 5ms.

Work around:

In case polling is used and the user shall not be able to configure any value other than 5ms. The user shall use the default value of 5ms for polling functions.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.2.4 0000053912-9738

Issue description: In the Can_17_McmCan_SetControllerMode API, the return value of the API is determined based on whether the transition to a requested state occurs or not. When a request is made for a state transition to CANIF_CS_STARTED and the transition does not take place succesfully due to a timeout condition, the global state variable still gets updated to STARTED. Hence in the next call when the system tries to recover by calling the API again, it triggers a DET to indicate that the CanSM is already in STARTED state.

Impact: The subsequent attempts to transition to the STARTED state by calling the API returns CAN_NOT_OK and DET.

Work around: No workaround.
Hint: Timeout event should be avoided. One possible way to achieve this is to configure a high value for the parameter CanTimeoutDuration.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.3 CanTrcv_17_V9251

12.3.1.1 0000053912-10559

Issue description: CanTrcv module multiplicity was 0-1. According to the AUTOSAR requirement , the module multiplicity value should be 0-*.

Impact: Multiple CanTrcv modules cannot be added in the configuration.

Work around: Multiple CanTrcv modules should not be in the configuration.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.4 CanTrcv_17_W9255

12.4.1 0000053912-10560

Issue description: CanTrcv module multiplicity was 0-1. According to the AUTOSAR requirement, the module multiplicity value should be 0-*.

Impact: Multiple CanTrcv modules cannot be added in the configuration.

Work around:

Multiple CanTrcv modules should not be in the configuration.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.5 DIO

12.5.1 0000053912-10461

Issue description: Plausibility check for input parameter "Level" is not done for Dio_WriteChannel() API.

Impact: For Dio_WriteChannel(), a wrong "Level" value will always result in setting the port pin as STD_HIGH.

Work around:

For Dio_WriteChannel(), user shall pass only as STD_LOW or STD_HIGH as the input parameter for "Level".

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.6 DMA

12.6.1 0000053912-9369

Issue description: Mismatches in parameters in their names and dependencies.

Impact: The names and dependency mismatches can result in incorrect interpretation of parameters.

Work around:

The following parameter names are mentioned incorrectly in User Manual: DmaInitDeInitApiMode, DmaChDeInitApiConfiguration, DmaGetVersionInfoApiConfiguration and DmaResourcePartitionErrorNotifRoutine. They are to be read as DmaInitApiMode, DmaDeinitApiConfiguration, DmaVersionInfoApi and DmaMoveEngineErrorNotifRoutine respectively.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.6.2 0000053912-10804

Issue description: Trap will occur if DMA clock is not enabled and Dma_MEStatusClear() is invoked before Dma_Init().

Impact: Invoking Dma_MEStatusClear() API before Dma_Init() will result in a trap if the DMA clock is not enabled.

Work around:

Dma_MEStatusClear() shall be invoked after Dma_Init() is done for the respective cores.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.6.3 0000053912-9819

Issue description: Dma_ChInit() has a wrong error DET DMA_E_DATA_TRANSFER_IN_PROGRESS indicated in UM.

Impact: No functional impact. Customer may mistakenly consider DET DMA_E_DATA_TRANSFER_IN_PROGRESS to be raised by Dma_ChInit() API.

Work around:

The user shall ignore the error DET DMA_E_DATA_TRANSFER_IN_PROGRESS for Dma_ChInit() API.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.7 DSADC

12.7.1 0000053912-9745

Issue description: Mismatch in Property file variables for the XDM and BMD.

Impact: When user uses the BMD for configuration and XDM for generation then Generator will raise an Error for the variable mismatch.

The following parameters cannot be configured only for non-tresos tool user:-

DsadcComModeVoltNegAEnable, DsadcComModeVoltNegBEnable, DsadcComModeVoltNegCEnable, DsadcComModeVoltNegDEnable, DsadcComModeVoltPosAEnable,DsadcComModeVoltPosBEnable,DsadcComModeVoltPosCEnable,DsadcComModeVoltPosDEnable,DsadcInputPinSelection

DsadcTriggerSelect.

Work around:

Limitation:

Users who do not use Tresos tool, should avoid configuring following parameters:

DsadcComModeVoltNegAEnable, DsadcComModeVoltNegBEnable, DsadcComModeVoltNegCEnable, DsadcComModeVoltNegDEnable, DsadcComModeVoltPosAEnable,DsadcComModeVoltPosBEnable,DsadcComModeVoltPosCEnable,DsadcComModeVoltPosDEnable,DsadcInputPinSelection

DsadcTriggerSelect.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.7.2 0000053912-10628

Issue description: Comparator event selection for lower and upper boundary is not working.

Impact: Comparator event will be generated for all the events even though user wants the events only for inside boundary or outside boundary.

Work around:

Based on the converted results, user has to identify whether the result is inside the boundary or outside the boundary in every comparator event.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.8 FEE

12.8.1 0000053912-10899

Issue description: Un-configured blocks management while handling word-line failures during write operation may result in out of bound array access.

Impact: During the mentioned scenario, if out of bound array access happens to be in a reserved memory area, it results in a trap.

Work around:

Use same block configuration for both boot and run time application configurations. This ensures that there are no un-configured blocks.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.8.2 0000053912-10903

Issue description: Occurrence of Program verify error during QS hardening results in a word-line skip for the write operation of the block, which triggered GC.

Impact: Unintended word-line skips resulting in unusable word-lines until next GC happens.

Work around:

No workaround required as driver recovers during next GC cycle.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.8.3 0000053912-10284

Issue description: As part of FEE double sector algorithm garbage collection (GC) happens. During GC, erase operation could weaken the data in QS region because of the 'erase disturbs'. In order to secure the QS data, FEE driver performs check and hardening periodically. Due to an error in the software implementation of FEE driver, hardening check is not performed for all pages. This issue is observed only when user configures both NVM and QS data blocks.

Impact: This may result in not performing the hardening operation for a page where hardening is actually required and thereby leading to data loss in the QS region.

Work around:

Avoid using configuration where both NVM and QS data blocks are configured.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.8.4 0000053912-10964

Issue description: Possibilities of Data blocks corruption leading to trap under certain scenarios while handling word-line failures during write operation.

Impact: Data flash content may be corrupted leading to data loss of user blocks and may result in a trap.

Work around: None.

Customers are requested to contact Field Application Engineers for support in case this issue impacts their use case. Field application engineers can support customer to analyse and understand the impact in customer specific environment.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.8.5 0000053912-10661

Issue description: Due to an error in the software implementation of FEE driver, when a pending user write request is cancelled by Fee_Cancel()/ Fee_17_CancelAll() API, followed by either user write request or user read request and then followed by user write request, driver may write unintended data.

API call sequences:

Fee_Write() → Fee_Cancel() → Fee_Read() → Fee_Write() or Fee_Write() → Fee_Cancel() → Fee_Write()

Impact: In the scenario mentioned in the description, the data flash content may be corrupted leading to

- Data loss of user blocks and/or
- Trap (DAE/DSE)

Work around:

Do not use Fee_Cancel()/ Fee_17_CancelAll() API for canceling pending write operation.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.8.6 0000053912-11133

Issue description: Multiple instances of QS cannot be erased by single call to Fee_17_EraseQuasiStaticData API when 256 QS instances are requested for erasure or if the QS block instances order is not maintained as specified in the user manual even after export and import of the configuration in Tresos.

Impact: Multiple instances of QS cannot be erased by single call to Fee_17_EraseQuasiStaticData API when 256 QS instances are requested for erasure or if the QS block instances order is not maintained as specified in the user manual even after export and import of the configuration in Tresos.

In the scenario mentioned above, the driver state will be stuck in 'busy' or incorrect QS block state may be reported by Fee_17_GetQuasiStaticBlockInfo respectively.

Work around: In this scenario, Fee_17_EraseQuasiStaticData API shall be called for each instance rather than the total number of instances.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.9 Flexray

12.9.1 0000053912-9999

Issue description: The Fr_17_Eray_ReconfigLPdu() API does not report the development error FR_E_INV_CHNL_IDX for negative values of the input parameter Fr_ChnlIdx.

Impact: When negative values of Fr_ChnlIdx parameter are passed to the Fr_17_Eray_ReconfigLPdu() API, the API does not report the development error FR_E_INV_CHNL_IDX and results in incorrect configuration of the channel index value for the LPdu.

Work around:

The application should use the defined enum literals of type Fr_ChannelType for the input parameter Fr_ChnlIdx, or use positive values.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.9.2 0000053912-9310

Issue description: During the execution of Fr_17_Eray_SetWakeupChannel() API, if there is a hardware error detected during the change of controller's POCState to POC:ready, the API returns E_OK (irrespective of the DEM configuration) instead of E_NOT_OK.

Impact: In case an hardware error is detected by Fr_17_Eray_SetWakeupChannel() API during the change of controller's POCState to POC:ready, this error condition is not recognized by the upper layer SW by checking the return value because E_OK is returned.

Work around:
The DEM event for FR controller hardware error needs to be configured and a check whether this production error is reported needs to be performed in order to examine the hardware error detected by Fr_17_Eray_SetWakeupChannel() API.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.10 FLS

12.10.1 0000053912-10907

Issue description: FSI in the NVM subsystem executes erase, program and verify operations on all flash memories. The FSI performs flash commands by the CPU (Host command sequence interpreter) and HSM (HSM command sequence interpreter- Only for DFLASH1) in time slices. Time out values in Flash drivers are calculated for the case that only one operation is executed uninterrupted by the time slicing (Issue applicable for both FLS and FlsLoader).

Impact: Unintended time out DET may be raised when operations on DFLASH0 and DFLASH1 are performed in parallel.

Work around:

Ensure operations on DFLASH0 and DFLASH1 are not happening in parallel.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.10.2 0000053912-7586

Issue description: Reporting of unintended timeouts may be observed for the lower range of supported values of FlsCallCycle parameter.

Impact: Reporting of unintended timeouts by the FLS driver will be observed while the actual write/erase operation is still going on in the hardware.

Work around:

It is to be ensured that the scheduling frequency of FLS operations using the Fls_17_Dmu_MainFunction() API is done at a rate greater than or equal to 200us. This can be done by configuring the parameter 'FlsCallcycle' to a

value greater than or equal to 200. Timeouts may be observed for the values less than 200, if configured for FlsCallCycle.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.10.3 0000053912-10182

Issue description: Operation Error(OPER) will be notified as sequence error(SQER) for erase resume(Fls_17_Dmu_ResumeErase()) and hardening(Fls_17_Dmu_IsHardening()) operations.

Impact: 1) Hardening: There will not be any impact from the user perspective for the hardening operation(Fls_17_Dmu_IsHardeningRequired()) as this API is used only by Infineon FEE, so this will be taken care by Infineon FEE.

2) Resume Erase(Fls_17_Dmu_ResumeErase()): Resume erase will be impacted and an OPER(operation error) will be notified as SQER(sequence error).

Work around:

If a user repeatedly gets a sequence error(SQER) while resuming an erase using the Fls_17_Dmu_ResumeErase() API, then a system reset is recommended.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.11 FLSLoader

12.11.1 0000053912-10907

Issue description: FSI in the NVM subsystem executes erase, program and verify operations on all flash memories. The FSI performs flash commands by the CPU (Host command sequence interpreter) and HSM (HSM command sequence interpreter- Only for DFLASH1) in time slices. Time out values in Flash drivers are calculated for the case that only one operation is executed uninterrupted by the time slicing (Issue applicable for both FLS and FlsLoader).

Impact: Unintended time out DET may be raised when operations on DFLASH0 and DFLASH1 are performed in parallel.

Work around:

Ensure operations on DFLASH0 and DFLASH1 are not happening in parallel.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.11.2 0000053912-10733

Issue description: If there are interrupts during PFLASH write operation or if the Safety watchdog counter frequency divider is not set to 16384, then the Safety watchdog timeout may happen.

Impact: Safety alarms may be triggered during PFLASH write operation if the Safety ENDINIT is disabled more than the Safety watchdog timeout period. This may happen if there are interrupts during PFLASH write operation or if the Safety watchdog counter frequency divider is not set to 16384.

Work around:

Application shall ensure PFLASH write operation is not interrupted and the Safety watchdog counter frequency divider is set to 16384.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.12 General

12.12.1 0000053912-10718

Issue description: OS wrapper calls made for register writes in CAT1 interrupt context.

Impact: In CAT1 interrupt context, call to OS wrapper for register writes are made (e.g: ADC, SPI). It is inconsistent across MCAL modules.

Work around:
At integration level, user shall take care of handling OS wrappers being called in CAT1 interrupt context.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.12.2 0000053912-9253

Issue description: Impact on MCAL for Errata CPU_TC.H019.

Impact: If the lock (like Semaphore or Spinlock) and resource being protected are placed in different memory modules (e.g: DSPR, PSPR, LMU), correct sequence of execution (read and write instruction sequence) to the lock and resource is not ensured and leads to inconsistent data. being read/written to the lock and resource.

Work around:
User shall ensure that:
- The lock (address of which is passed to the Mcal_GetSpinlock() API) and the resource to be protected shall be placed in the same memory module.
- The lock used shall be placed in the non-cached memory section.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.13 HSSL

12.13.1 0000053912-10086

Issue description: Structures/Unions are not recommended to be passed directly as function arguments. This will occupy lot of space on stack and inefficient. This is a violation of ECR_206.

Impact: Windriver compiler bug TCDIAB-14541 (structure members are incorrectly accessed) has an impact.

Work around:

HSSL is a demo module. If customer see an impact due to this, then required code changes can be made to fix the issue.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.13.2 0000053912-10882

Issue description: Running HSSL module in user mode results in trap as registers with SV-write are written directly.

Impact: HSSL module cannot be run in user mode.

Work around:
As HSSL is demo code, customer can update the code to support user mode.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.14 I2C

12.14.1 0000053912-10934

Issue description: Running I2C module in user mode results in trap as GPCTL(Write-SV mode) register is written directly.

Impact: I2C module cannot be run in user mode.

Work around:
As I2C is demo code, customer can update the code to support user mode.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.15 ICU

12.15.1 0000053912-10719

Issue description: Unavailable port pin PORT23_PIN0 in TC377_ED_EX used for TIM channel configuration.

Impact: Customer may select PORT23_PIN0 for TIM channel configuration which does not exist and ICU functionality will not work for that pin.

Work around:
Customer shall not select PORT23_PIN0 TIM channel in ICU configuration.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.16 LIN

12.16.1 0000053912-10001

Issue description: Wakeup related call back LinIf_WakeupConfirmation to be guarded with Wakeup Enable is ON else implicit declaration of call back function warning is reported.

Impact: Compiler warning is reported.

Work around:
A dummy declaration of LinIf_WakeupConfirmation must be defined in LinIf when LIN_GLOBAL_CHANNEL_WAKEUP_SUPPORT is STD_OFF.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.16.2 0000053912-10316

Issue description: When DET is OFF and channel state is not in LIN_CH_SLEEP, if Lin_17_AscLin_Wakeup and Lin_17_AscLin_WakeupInternal APIs are called the return value will be E_OK indicating the wakeup has occurred.

Impact: Upper layer assumes that the wakeup has occurred successfully and may process channel accordingly though actual wakeup has not occurred on the bus.

Work around:
All sequences should be tested with DET ON.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.16.3 0000053912-10315

Issue description: When LIN_17_ASCLIN_GLOBAL_CHANNEL_WAKEUP_SUPPORT is ON and channel wakeup is enabled or disabled, EcuM_CheckWakeup is been called in both cases. EcuM_CheckWakeup should not be called when channel wakeup is disabled.

Impact: If false or unintended wakeup is detected for a LIN channel for which wakeup is disable during configuration, the LIN driver will not validate this scenario and the LIN driver will invoke EcuM_CheckWakeup().

Note: if this error scenario happens, application will get a wrong information from driver instead of error notification.

Work around: No workaround for the issue. Users to ensure that the false wakeup or unintended wakeup is not happening in the system.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.17 MCALLIB

12.17.1 0000053912-10568

Issue description: Wrong STM tick used for delay operations if SYSCLK is selected as the clock source.

Impact: Mcal_DelayTickResolution() API will provide a higher STM tick resolution, and result in slower timeout than desired. Below are the impacted MCAL drivers using Mcal_DelayTickResolution() API:
- CanTrcv_17_V9251
- CanTrcv_17_W9255
- Can_17_McmCan
- Eth_17_GEthMac
- FlsLoader
- Fls_17_Dmu
- Fr_17_Eray
- Lin_17_AscLin
- McalLib
- Mcu
- Uart
- Wdg_17_Scu

Work around:
User shall not use SYSCLK as the input clock source. They shall use the back-up clock or oscillator as the clock sources.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.18 MCU

12.18.1 0000053912-9801

Issue description: Mcu code generation fails when default Tresos naming convention is not followed for configuration containers and parameters.

Impact: If the name of configuration containers and parameters listed below are changed from default Tresos names, Mcu code generation will fail.
McuEruAllocationConf
McuGtmAllocationConf

McuCcu6ModuleAllocationConf
McuGpt12ModuleAllocationConf
GtmTomGlobalConf
GtmTomChannelConf
GtmAtomGlobalConf
GtmAtomChannelConf

Work around:
The short name for following containers and their respective sub-containers shall follow the syntax <Container_Name>_<i> where <i> is an integer:
McuEruAllocationConf
McuGtmAllocationConf
McuCcu6ModuleAllocationConf
McuGpt12ModuleAllocationConf
GtmTomGlobalConf
GtmTomChannelConf
GtmAtomGlobalConf
GtmAtomChannelConf
Note: The above naming convention is by default followed in Tresos, when new containers are added or when project is created.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.18.2 0000053912-10172

Issue description: RAM redundancy handling may result in trap during standby entry of Mcu_SetMode() API.

Impact: If Standby mode is used and customer has application data in the first 64 bytes of configured Standby RAM, a trap may occur. The driver assumes valid RAM addresses are present in the first 64 bytes and tries to de-reference these addresses.

Work around:
If Standby mode shall be used, customer shall reserve the first 64 bytes of the configured Standby RAM and not use it.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.18.3 0000053912-9132

Issue description: Mcu_SetMode() activates the Standby mode even when a write to PMSWCR3 register fails (DEM failure reported).

Impact: If wake-up timer is used as a wake-up sourceand during execution of Mcu_SetMode() to Standby mode, if PMSWCR3 write fails because of a hardware failure, the system may not wake-up from Standby at all even when wake-up timer has triggered the system for wake-up.

Work around:
The user shall not use wake-up timer as the only wake-up source.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.18.4 0000053912-9412

Issue description: A compilation error is reported when McuInitClockApi configuration parameter is set FALSE.

Impact: A compilation error will be reported when the configuration parameter McuInitClockApi is switched OFF.

Work around:
The user shall not set the McuInitClockApi configuration parameter to False.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.19 OCU

12.19.1 0000053912-6153

Issue description: Data Inconsistency when Ocu_Init is called by multiple cores with different configuration pointer.

Impact: The operation of the Ocu driver cannot be guaranteed, if Ocu_Init is invoked concurrently from multiple cores with different configuration pointer, it leads to data inconsistency.

Work around:
User shall ensure the configuration pointer passed for Ocu initialization(Ocu_Init() API) should be the same across all the configured cores.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.20 PORT

12.20.1 0000053912-9809

Issue description: Variation point for certain Autosar and IFX parameters not configurable.

Impact: The following parameters can not be configured:

PortPinDirectionChangeable
PortPinInputPullResistor
PortPinOutputPadDriveStrength
PortPinOutputPinDriveMode
PortPinInputPadLevel
PortPinEnableAnalogInputOnly
PortPinEmergencyStop
PortPinControllerSelect
PortLVDSRxEnController
PortLVDSRxPathEnable
PortLVDSRxTerminationMode
PortLVDSMode
PortLVDSPadSupply
PortLVDSTxEnController
PortLVDSTxPathEnable
PortLVDSTxPowerDownPullDown.

Work around:
Customer should not configure certain parameters for variation point support.

Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.21 PWM

12.21.1 0000053912-10918

Issue description: GHS Compiler warning in PWM for following configurations:

PWM_17_GTMCCU6_DE_INIT_API = STD_ON, PWM_17_GTMCCU6_SET_OUTPUT_TO_IDLE_API = STD_OFF and PWM_17_GTMCCU6_DUTY_SHIFT_IN_TICKS = STD_OFF.

Impact: Compiler warning in GHS will occur when PWM_17_GTMCCU6_DE_INIT_API = STD_ON, PWM_17_GTMCCU6_SET_OUTPUT_TO_IDLE_API = STD_OFF and PWM_17_GTMCCU6_DUTY_SHIFT_IN_TICKS = STD_OFF.

Work around:
To avoid the compiler warning, customer can use any one of the below workarounds:
1) Enable PWM_17_GTMCCU6_SET_OUTPUT_TO_IDLE_API = STD_ON and PWM_17_GTMCCU6_DUTY_SHIFT_IN_TICKS = STD_ON

2) Customer shall configure at-least 1 CCU6 channel if PWM_17_GTMCCU6_DE_INIT_API = STD_ON, PWM_17_GTMCCU6_SET_OUTPUT_TO_IDLE_API = STD_OFF and PWM_17_GTMCCU6_DUTY_SHIFT_IN_TICKS = STD_OFF.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.21.2 0000053912-11145

Issue description: For PWM shifted channels when PwmHandleShiftByOffset is TRUE, the configuration error check unnecessarily restricts the user to configure the channels in the order and also the channels to be configured in the same module(TGC/AGC) eventhough check is not required.

Impact: User is unnecessarily forced to order the PWM TOM/ATOM channels only within a TOM/ATOM module when PwmHandleShiftByOffset=TRUE.

Work around:
User shall ensure PWM TOM/ATOM channels are ordered in the same respective TOM/ATOM module when PwmHandleShiftByOffset=TRUE.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.22 SENT

12.22.1 0000053912-10695

Issue description: Deinit API throws compilation error when SentDevErrorDetect is off and SentMulticoreErrorDetect is ON.

Impact: DET off configuration gives compilation error.

Work around:
SentDevErrorDetect and SentMultiCoreErrorDetect should be ON.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.23 SMU

12.23.1 0000053912-8818

Issue description: 'A2GT-REQ_AoU_SW-15' in MCAL user manual is not inline with 'ESM[SW]:SMU:ALIVE_ALARM_TEST' AoU in safety manual.

Impact: Information related to frequency of the "SMU Alive Test" execution is not mentioned. This may lead to incorrect deployment of the safety measure.

Work around:
A2GT-REQ_AoU_SW-15 to be read as "The integrated system shall execute the "SMU Alive Test" provided in MCAL software at least once per driving cycle and take the appropriate actions depending on the result."

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.23.2 0000053912-10578

Issue description: The Smu_LockConfigRegs() API is non-reentrant and can be invoked from only one core at a time but it is incorrectly documented to be Re-entrant in both SAS and User Manual.

Impact: The Smu_LockConfigRegs() API does not support reentrancy. Treating the API as reentrant or calling it simultaneously from multiple cores can lead to inconsistent results. In some cases, second invocation may return E_OK but in others, it may return with E_NOT_OK and DET or Safety error, if enabled.

Work around:
User shall treat the Smu_LockConfigRegs() API in a non-reentrant manner.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.24 SPI

12.24.1 0000053912-9099

Issue description: Spi_Deinit not resetting all the registers which are initialized as part of Spi_Init.

Impact: Impact analysis done and no functional impact.

Work around: No work around required as there is no functional impact.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.24.2 0000053912-8936

Issue description: In Multicore scenario, few SPI hardware channels mapped to Core 0 which are using only synchronous and few other hardware channels mapped to Core 1 which are always asynchronous. Calling any runtime API results in FALSE UNINIT DET.

Impact: The mentioned DET will be observed for all the runtime API until all cores are successfully initialized.

Work around:

User must ensure that all cores initializations are done before invoking any runtime API from any core.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.24.3 0000053912-9102

Issue description: Multiple DEMs are reported on any HW error occurred during asynchronous transmission.

Impact: To handle each DEM, repetitive corrective actions may be triggered by application in quick successions.

Work around:

Ignore the successive DEM which are reported with the same EVENT ID: SPI_E_HARDWARE_ERROR.

Note: Applicable only for Asynchronous Transmission.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.24.4 0000053912-9108

Issue description: While Spi_Controlloopback API is executing and second thread invokes the Spi_Asynctransmit API then there is a possibility of data getting corrupted since the loopback will be enabled/disabled when data transfer is in progress.

Impact: Data transmission over the SPI interface to the other end may not be guaranteed.

Work around:

When Spi_ControlLoopBack API is invoked, upper layer must ensure that no other thread is allowed to start a new sequence on the same HW until Spi_ControlLoopBack API has completed its execution.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.24.5 0000053912-8951

Issue description: Clearing of PT2F is missing when interrupts are enabled.

Impact: Trap observed while switching from interrupt mode to polling mode in LEVEL-2 configuration.

Work around:

At runtime, user must avoid switching between interrupt to polling mode.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.24.6 0000053912-9831

Issue description: Issue with 8-bit IB channel buffer access for Synchronous configuration, resulting in invalid generation of SPI_SYNC_IB_BUFFER_SIZE_COREx macro size.

Impact: IB transmission (TX) and Reception (RX) buffers will be corrupted. Functionality cannot be guaranteed.

Work around:

1. Ensure that the number of IB buffers are multiple of 4 bytes in case of 8-bit channel data width.
2. Use asynchronous transmission mode instead of synchronous if #1 is not feasible.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.24.7 0000053912-9901

Issue description: SpiMaxChannel, SpiMaxJob, SpiMaxSequence Post-build variant value should be set to false.

Impact: Values for these configuration parameters are not allowed to change across variants.

Work around:
Customers to ensure that value of these configuration parameters (i.e. SpiMaxChannel, SpiMaxJob, SpiMaxSequence) can not be changed.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.24.8 0000053912-9100

Issue description: CS_VIA_GPIO is not de-asserted when error occurs during synchronous transmission.

Impact: Slave will not be de-asserted and successive communication to different slave devices will also be impacted.

Work around:

1. DEM is reported when there any error during transmission. Use must de-assert the CS line while handling the DEM.
2. Use HW driven CS instead of GPIO.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.24.9 0000053912-9371

Issue description: Spi_SyncTransmit() API is exiting before Trailing Delay is over and updating the state as IDLE even though Hardware is busy.

Impact: 1. API Spi_GetHWUnitStatus() will return SPI_BUSY
2. API Spi_ControlLoopBack() will return E_NOT_OK
though Spi_SyncTransmit() API returns E_OK indicating the transmission completion.

Work around:

After Spi_SyncTransmit() API returns E_OK, user must call Spi_GetHWUnitStatus() API and wait untill it returns SPI_IDLE.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.24.10 0000053912-9720

Issue description: Spi_Cancel API should cancel the sequence only if the sequence is in pending state.

Impact: Updates the sequence status to SPI_SEQ_CANCELED even though the sequence transmission is not on-going.

Work around:

User must invoke Spi_Cancel() only when Spi_GetSequenceResult() API returns SPI_SEQ_PENDING.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.24.11 0000053912-9087

Issue description: Spi_SyncTransmit() is returning E_OK if HW error is encountered by reporting a DEM.

Impact: If DEM reporting is disabled, User assumes that the transmission is successful since the API returns E_OK.

Work around:

User can call Spi_GetSequenceResult() API to get the sequence status though Spi_SyncTransmit() API returns E_OK.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.24.12 0000053912-9890

Issue description: IB channel offset overflows when more than one channel configured with 65535 data elements.

Impact: IB buffer is corrupted.

Work around:

User must ensure the sum of all IB channel buffers size allocated for a core must not cross 65535 bytes.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.24.13 0000053912-10039

Issue description: Incorrect EB, IB channel validation with respect to 8190(max data elements allowed per asynchronous job) during configuration code generation.

Impact: Incorrect errors will be reported.

Work around:

User must ensure the number of data elements per asynchronous job must not cross 8190 data elements.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.24.14 0000053912-10068

Issue description: SPI_E_PARAM_SEQ DET/SE not raised if Spi_AsyncTransmit() is called for a Synchronous sequence.

Impact: Functional behavior is not guaranteed.

Work around:

User must have a configuration where configuration parameters both SpiDevErrorDetect and SpiMulticoreCheckEnable must be set to TRUE.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.24.15 0000053912-10935

Issue description: Spi_GetJobResult doesn't report DET when called with a Job not allocated to that CPU core.

Impact: Incorrect job result will be returned even though Job is not configured for the core.

Work around:

User must ensure that the JobID passed to the Spi_GetJobResult() API is assigned to core on which the Spi_GetJobResult() API is invoked.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.24.16 0000053912-9101

Issue description: Incorrect behavior of Spi_GetHwUnitStatus() API.

Impact: Spi_GetHwUnitStatus() may return SPI_IDLE intermittently, even though HW unit is in busy state.

Work around:

Avoid using this API.

Note: This is an optional API.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.24.17 0000053912-9103

Issue description: Spi_SyncTransmit and Spi_AsyncTransmit behave different if error is encountered during transmission. If an error occurs during Sync transmission, all the jobs related to same sequence is marked as SPI_JOB_FAILED. In case of AsyncTransmit all the jobs apart from the one failed is marked as SPI_JOB_OK, only job that failed is marked as SPI_JOB_FAILED. Status of the jobs to be retained as Queued / pending.

Impact: Calling Spi_GetJobResult on a Job(not actually transmitted but belongs to failed sequence) returns SPI_JOB_OK in case of Asynchronous communication where as it returns SPI_JOB_FAILED incase of synchronous communication.

Work around:
If the Spi_GetJobResult API returns SPI_JOB_FAILED, user must ignore the status of successive jobs.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.24.18 0000053912-10645

Issue description: Calling Spi_Cancel() cancels the successive job of ongoing sequence being transmitted and updates the sequence status to cancelled. However updating the QSPI HW unit status to IDLE only happens once the ongoing job transmission is completed. So calling Spi_GetHwUnitStatus or Spi_GetStatus immediately after Spi_Cancel will return SPI_BUSY due to ongoing job.

Impact: Calling Spi_GetHwUnitStatus or Spi_GetStatus immediately after Spi_Cancel in case of only single sequence/last sequence will return SPI_BUSY.

Work around:
User must call Spi_GetHwUnitStatus or Spi_GetStatus and wait untill the API returns SPI_IDLE.

Impacted Release(s): 1.0.0, 1.10.0, 1.20.0, 1.30.0, 1.40.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.25 UART

12.25.1 0000053912-10629

Issue description: UART driver does not support fast frequencies.

Impact: Clock mismatch possible in baud rate regeneration for fast frequencies. This will lead to incorrect data communication.

Work around:

The user should always select UartCsrClksel as ASLINS in tresos to take reference for the baud rate generation.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.25.2 0000053912-10808

Issue description: Incorrect CTS select line SELECT_CTS_A_PORT14_PIN9 is given for ASCLIN0 Kernel it should be None.

Impact: If SELECT_CTS_A_PORT14_PIN9 used for ASCLIN0 then Handshaking mechanism may not work .

Work around:

a) ASCLIN0: Avoid using this configuration.

b) For the rest: User can choose different AscLin kernal(ASCLIN1/ASCLIN2/ASCLIN3) to enable Handshaking mechanism.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

12.26 WDG

12.26.1 0000053912-9891

Issue description: Wrong maximum limit for WDG Slow Refresh time configuration parameters, when STM timer is selected.

Impact: The WDG Slow refresh time configuration for STM timer can only be a maximum of 4.294 seconds. For Slow refresh times > 4.294 secs for STM timer, arithmetic overflow will occur and incorrect timer values would be configured.

Work around:

Customer can use one of the workarounds:

- Configure GTM timer instead of STM timer

- If STM timer is used, maximum refresh time for SLOW mode shall be 4.294 seconds.

Known issues v3.0

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

13 Safety topics v3.0

This section lists safety anomalies and safety related updates related to production releases and maintenance releases.

13.1 HW safety manual

13.1.1 0000053912-9009

Issue description: Impact analysis of AURIX TC3xx Safety Manual 1.05 to existing production releases.

Impact: Additional information related to AoU is documented in 0000053912-8818. No other impacts.

Work around: See issue description of 0000053912-8818.

Impacted Release(s): 1.10.0, 1.30.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14 Known issues v2.0

14.1 ADC

14.1.1 0000053912-7242

Issue description: AdcChannelLowLimit description in MCAL UM is confusing.

Impact: UM description for AdcChannelLowLimit parameter is wrong. I.e. Value has to be greater than or equal to AdcChannelLowLimit. However no functional impact.

Work around:

UM description for AdcChannelLowLimit parameter should be read as follows:

Parameter defines the lower limit used for limit checking.

1. This parameter is configurable only if AdcChannelLimitCheck is set to TRUE, and AdcChannelRangeSelect is not equal to 'ADC_RANGE_OVER_HIGH'.

2. AdcChannelLowLimit value has to be less than or equal to AdcChannelHighLimit.

The default and maximum value of this parameter is added based on the 12-bit ADC converters value supported by the hardware.

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.1.2 0000053912-7580

Issue description: Config pointer passed in Adc_InitCheck API is not used for checking the correct initialization of ADC driver.

Impact: Validation of the input Config pointer isn't considered and Adc_InitCheck API will return E_OK incorrectly.

Work around: None.

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.2 All Modules

14.2.1 0000053912-7100

Issue description: In <Mod>_Bswmd.arxml signed values are not supported for enum data types.

Impact: Signed values can’t be used for enum data type.

Work around: Customer to use only unsigned values for enum data types.

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.2.2 0000053912-8516

Issue description: RTE generation issues possible due to invalid / missing information in BswMD ARXML.

Impact: Customer cannot generate RTE with Mentor RTE tool because of the invalid/missing information used in BSWMD ARXML. Impacted drivers are DSADC, MCU, ADC, PWM, ICU, WDG, GPT, OCU, HSSL, I2C, SPI, CanTrcv_17_V9251 and CanTrcv_17_W9255.

Work around: No workaround available.

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.3 CAN

14.3.1 0000053912-7284

Issue description: Duplication of SWPDU ID on triggering CAN_Write() from same dedicated HTH (INTERRUPT and POLLING).

Impact: When Can_Write is triggered at the end of transmission, a notification is provided to upper layer for successful transmission. In this scenario where message is successfully transmitted on bus and notification is delayed due to other higher priority interrupts and in mean time a Can_Write request is provided on the same HTH, previous PDU id will be overwritten by the new request due to which two notifications will be obtained for last message being transmitted.

Work around: Successive Can_Write on a same dedicated HTH has to trigger only after successful notification is obtained to upper layer.

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.3.2 0000053912-7285

Issue description: Unexpected acceptance of Can_17_McmCan_Write during execution of Can_17_McmCan_lActivateIcom.

Impact: When Icom is enabled / disabled using the API Can_17_McmCan_SetIcomConfiguration, controller is initialized and filters are re-configured during which messages should not be accepted for transmission. Since the controller is re-initialized, behavior of the hardware will not be predictable and is undefined in this state, so possibility of message not getting transmitted is high.

Work around: Controller needs to be in stopped state by using Can_17_McmCan_SetControllerMode API and Can_17_McmCan_SetIcomConfiguration API to be used for enabling / disabling Icom. Application to make sure that messages are requested to be transmitted only after successful Icom enable / disable.

Known issues v2.0

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.3.3 0000053912-7295

Issue description: Clearing of Busoff interrupt flag is missed in certain conditions.

Impact: In Case of Icom feature is enabled through configuration, Icom(Can_17_McmCan_SetIcomConfiguration) is not enabled and busoff reporting is disabled (CanIcomWakeOnBusOff), bus-off interrupt flag (IR.BO) will not be cleared leading to not getting successive bus-off interrupt.

Work around: Disable complete Icom feature by setting the value of CanPublicIcomSupport to FALSE.

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.3.4 0000053912-7299

Issue description: Unintended bitwise access, missing timeout monitoring and global variable update sequence is not as expected in CAN Driver.

Impact:

#a. Can_Write API: BAR register updated bit-wise, we have a remote chance to update rest of the bits though transmission is completed in background if we do a bit-wise update. This may lead to a retransmission of same message twice. However this is a very remote possibility.

#b. Can_17_McmCan_SetIcomConfiguration: It has been observed that in this function when clearing / setting INIT, CCE bits timeout is not implemented. These needs to be added to make sure that the bits are SET / clear as intended and then proceed with functionality. No Impact to user is observed but this is the recommended practice.

#c, #d. Can_17_McmCan_SetIcomConfiguration: Certain global variables / update of global variables sequences were not proper due to which Can_Write and Can_17_McmCan_SetIcomConfiguration API had certain race around condition leading to un-predictable software behavior.

Work around:

- None for impact #a
- None for impact #b

• Workaround for #c & #d. Controller needs to be in stopped state by using Can_17_McmCan_SetControllerMode API and Can_17_McmCan_SetIcomConfiguration API to be used for enabling / disabling Icom. Application to make sure that messages are requested to be transmitted only after successful Icom enable / disable.

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.3.5 0000053912-7620

Issue description: CAN RX message indications not received after resuming from RXfull and CAN controller mode put to stop.

Impact: If interrupts are disabled and more and more messages are received setting the FIFO to full, however in this case, watermark / full interrupt bits would be SET in interrupt register. When CAN controller is put to STOP and then to START mode though CAN controller as such is reset, IR bits would remain SET and is not cleared by ISR due to watermark check in ISR code. In this condition user will experience that no further RX ISR will be triggered and controller will be held in stand-still state.

Work around: Can_17_McmCan_SetControllerMode API to move to STOP / START state to be performed only when no pending interrupts are to be processed.

Impacted Release(s): 1.0.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.3.6 0000053912-7535

Issue description: A2GT-PRQ-4559 deviated for mixed mode implementation.

Impact: If watermark interrupt is missed due to messages getting received when processing the RX interrupt, upper layer may be notified with callback on reception of message.

Work around: When polling mode / Mixed mode is not used Can_17_McmCan_MainFunction_Read should not be called from the scheduler.

Impacted Release(s): 1.10.0, 1.30.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.4 DIO

14.4.1 0000053912-8827

Issue description: P22.6 and P22.7 cannot be configured in TC37x and TC35x devices.

Impact: For DIO module, customer will not be able to configure the available port pins 22.6 and 22.7.

Work around: No workaround available. Customer can use the patch: "MC-ISAR_AS42x_TC3xx_1.30.0_Patch_1.zip".

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

14.5 Ethernet

14.5.1 0000053912-4810

Issue description: Transmission is failing intermittently in 10Mbps mode.

Impact: Ethernet packet transmission fails in RGMII/10 Mbps mode intermittently. This behavior is observed only when the global time stamp through the parameter 'EthGlobalTimeSupport ' is enabled.

Hint - If the time stamp feature in not enabled or the RGMII is not configured in 10 Mbps, then this issue is not observed.

Work around: Disable time stamp feature through the parameter 'EthGlobalTimeSupport '.

Impacted Release(s): 1.10.0, 1.30.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.5.2 0000053912-8281

Issue description: VLAN packet transmission with data size of 1500 is not supported.

Impact: VLAN tagged packet with data size of 1500 cannot be transmitted using ETHERNET driver.

Work around: No workaround available.

Impacted Release(s): 1.10.0, 1.30.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.5.1 0000053912-7079

Issue description: Variation Point not supported.

Impact: Variation point support is not available for customers to use.

Work around: None

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.6 FLS

14.6.1 0000053912-7407

Issue description: FLS driver status and Job Result not set when FLS_17_DMU_E_TIMEOUT DET/SE is raised by Fls_17_Dmu_MainFunction.

Impact: Unintended timeout DET may be reported.

Work around: To avoid unintended timeout DET, the user has to ensure that calling frequency of Fls_17_Dmu_MainFunction is greater than or equal to 200 us. (Configuration parameter - FlsCallCycle).

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.6.2 0000053912-8037

Issue description: During Flash prog/erase operation, if the flash hardware remains busy, operation error is not handled.

Impact: Operation error is not detected and reported, but the timeout DET is reported.

Work around: During runtime the timeout DET will be reported, in which case a system reset must be applied.

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.6.3 0000053912-8330

Issue description: Compile time error name if FLs_InitCheck not selected is not named correctly.

Impact: Compilation / linker error may occur when FlsInitCheck parameter in configuration is enabled.

Work around: User has to ensure that the configuration parameter FlsInitCheck is enabled if an Fls_17_Dmu_InitCheck call is being made in the code.

Impacted Release(s): 1.10.0, 1.30.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.7 FLS loader

14.7.1 0000053912-7697

Issue description: FlsLoader_Write() is failing for DFlash when Executed with McuFSIFrequency at 20MHz.

Impact: For FSI frequencies other than 100 MHz, unintended timeout for write or erase operation may occur.

Work around: To avoid unintended timeouts, FSI frequency shall be configured at 100MHz.

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.7.2 0000053912-8081

Issue description: Possibility of incorrect program flow while checking busy status.

Impact: Checking of the busy status, if done too early might reflect a wrong status and cause incorrect program flow.

Work around: Delay to be added after program and erase command sequence as per HW UM (v1.2.0 onwards).

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.7.3 0000053912-8089

Issue description: During Flash prog/erase operation, if the flash hardware remains busy, operation error is not handled.

Impact: Operation error is not detected and reported, but the timeout DET is reported.

Work around: During runtime the timeout DET will be reported, in which case a system reset must be applied.

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.8 Flexray

14.8.1 0000053912-8320

Issue description: Potential issue in macro "FR_17_ERAY_MSG_BUFF_COUNT_MAX_0".

Impact: The pre-compile macro FR_17_ERAY_MSG_BUFF_COUNT_MAX_0/

FR_17_ERAY_MSG_BUFF_COUNT_MAX_1 generated in Fr_17_Eray_Cfg.h considers the LPdu count only in the present configuration and not the maximum value across all post-build configurations.

Work around: By configuring the variant which is having maximum number of configured LPdus as the last one, the macro FR_17_ERAY_MSG_BUFF_COUNT_MAX_0/FR_17_ERAY_MSG_BUFF_COUNT_MAX_1 will be generated with max number of LPdu count. However user has to verify this manually by checking the macro value.

Impacted Release(s): 1.10.0, 1.30.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.9 General

14.9.1 0000053912-7985

Issue description: RSM tool not reporting all functions for a module.

Impact: Functions with higher complexity may exist, higher than the release criteria.

Work around: User can run code complexity tool, other than RSM tool for recheck.

Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

14.9.2 0000053912-8948

Issue description: Resource properties issues in TC37x.

Impact:

Impact on PWM or OCU modules:

TC375 device: Customer is not allowed to configure GTM TOUT configurations for port pins PORT21_PIN6, PORT21_PIN7 and PORT11_PIN6.

TC377 device: Customer is not allowed to configure GTM TOUT configurations for port pins PORT21_PIN6 and PORT21_PIN7.

TC377_ED device: Customer is not allowed to configure GTM TOUT configurations for port pins PORT21_PIN6 and PORT21_PIN7.

TC377_ED_EX device: Customer is not allowed to configure GTM TOUT configurations for port pins ORT21_PIN6 and PORT21_PIN7. Customer should not configure the PORT23_PIN0 TOUT as this pin does not exist on this device.

TC375_ED device: Customer is not allowed to configure GTM TOUT configurations for port pins PORT21_PIN6, PORT11_PIN6 and PORT21_PIN7.

Impact on LIN and UART module:

TC377_ED_EX: Customer cannot configure the ASCLIN RX line for any of the following pins:

SELECT_C_PORT1_PIN8, SELECT_E_PORT13_PIN11, SELECT_E_PORT33_PIN6, SELECT_H_PORT13_PIN12, SELECT_B_PORT34_PIN02, SELECT_D_PORT14_PIN15, SELECT_B_PORT01_PIN0, SELECT_D_PORT10_PIN9, SELECT_A_PORT14_PIN15, SELECT_B_PORT01_PIN8, SELECT_D_PORT13_PIN11

Impact on PORT module:

TC377_ED:

- P22.6 and P22.7 cannot be used

- P40.10 PCSR feature cannot be used

- Port22 and Port23 PCSR pins cannot be configured

- User will not be able to use PDISC support for P40.4, P40.10, P40.11, P40.12

- User will not be able to select Port23 pin 5 fast pin

TC377_ED_EX:

- The complete functionality of P23.0 pin cannot be used.

TC377_ED_EX:

Known issues v2.0

- User will not be able to use Pin channel support for P22.6 and P22.7

- User will not be able to use the P22.6 and P22.7 pin for PCSR functionality

- Analog pin support for Port40 pin 4,10,11,12 added, user will not be able use this pins for DISC configuration

TC375_ED:

- P23.2, 23.3, 23.4 PCSR feature cannot be used

Impact on Dio Module:

TC377_ED_EX: The complete functionality of P23.0 pin cannot be used.

T356_ADAS: P14.6 and P15.6 cannot be used

TC377_ED, TC377, TC377_ED_EX: P22.6 and P22.7 cannot be used

Impact on Eth Module:

TC375, TC375_ED: User will not be able to configure 10 Mbps speed in RMII mode.

Impact on SENT module:

TC375 and TC375_ED: P32.5 and P32.7 pins cannot be configured

Impact on CAN module:

TC377_ED_EX: selects the incorrectly mapped CANxx_RXDC pin for the controller with address 0xF0218100, the CAN controller receive functionality will not work as expected. For this device and controller any of the other available options must be used.

Work around: No workaround available.

Customer can use the patch: "MC-ISAR_AS42x_TC3xx_1.30.0_Patch_1.zip" available in MyInfineon.

Impacted Release(s): 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

14.10 HSSL

14.10.1 0000053912-8559

Issue description: Wrong Memmap section used.

Impact: No functional impact is seen, however there are two behaviors as captured below

1. Instead of storing the initialized const variable in flash it utilizes the RAM space to store.

2. Single RAM variable is initialized though it can be kept as cleared RAM variable.

Work around: No workaround available.

Impacted Release(s): 1.30.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.11 I2C

14.11.1 0000053912-7409

Issue description: Async Read/Write operation is not working after I2c_AsyncRead API is called with data size more than 4 bytes.

Impact: I2C_AsyncRead() service cannot be used to read more than 4 bytes of data from the slave device.

Work around: For reading the data from the slave, application shall use API I2c_SyncRead().

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.11.2 0000053912-9027

Issue description: I2C configure parameter "I2cFastModeSclLowLength" is incorrectly generated.

Impact: I2C configure parameter "I2cFastModeSclLowLength" is generated as bit21~bit28, but according to the user manual it should be in bit24~bit31.

Work around: No workaround. As I2C is demo code, customer to configure the parameter as per hardware user manual.

Impacted Release(s): 1.10.0, 1.30.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.11.3 0000053912-7801

Issue description: Memory mapping naming for configuration is incorrect.

Impact: Since I2C is not multicore, all memory sections names should be defined with core scope as LOCAL. But I2C implementation violates this rule.

Work around: Memory mapping for configuration data has to be changed in files(I2c_PBcfg.c and I2c_PBcfg.h) as follows:

1. From "I2C_START_SEC_CONFIG_DATA_QM_GLOBAL_UNSPECIFIED" to "I2C_START_SEC_CONFIG_DATA_QM_LOCAL_UNSPECIFIED".

2. From "I2C_STOP_SEC_CONFIG_DATA_QM_GLOBAL_UNSPECIFIED" to "I2C_STOP_SEC_CONFIG_DATA_QM_LOCAL_UNSPECIFIED".

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.12 ICU

14.12.1 0000053912-8327

Issue description: Invalid configuration check if variation point is enabled.

Impact: The configuration tool may wrongly restrict configuration across variation point configurations for below pre-compile configuration parameters:

- IcuGetInputStateApi

- IcuGetDutyCycleValuesApi

- IcuGetTimeElapsedApi

- IcuEnableWakeupApi

- IcuEdgeDetectApi

Below error may be thrown due to difference of ICU modes across valid variation point configurations:

- For edge detect/signal measurement:

-- IcuGetInputStateApi will be forced to be set to false in a variation where no channels are associated but is required to be set to true for another variant where channels are associated.

- For duty cycle measurement:

-- IcuGetDutyCycleValuesApi will be forced to be set to false in a variation where no channels are associated but is required to be set to true for another variant where channels are associated.

- For signal measurement (non dutycycle):

-- IcuGetTimeElapsedApi will be forced to be set to false in a variation where no channels are associated but is required to be set to true for another variant where channels are associated.

- For edge detection only:

-- IcuEnableWakeupApi and IcuEdgeDetectApi will be forced to be set to false in a variation where no channels are associated but is required to be set to true for another variant where channels are associated.

Work around: For variation point configuration, if any of the below configuration parameters is set to True, then at least one ICU channel must be associated for that ICU mode across variation point configurations :

Known issues v2.0

- IcuGetInputStateApi

- IcuGetDutyCycleValuesApi

- IcuGetTimeElapsedApi

- IcuEnableWakeupApi

- IcuEdgeDetectApi

Impacted Release(s): 1.10.0, 1.30.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.12.2 0000053912-8361

Issue description: Post-Build Variant Multiplicity needs to be changed to TRUE for Edge Detect, Signal Measurement and Time Stamp Containers.

Impact: Below ICU configuration containers do not support variation point:

- IcuSignalEdgeDetection

- IcuSignalMeasurement

- IcuTimestampMeasurement

- IcuWakeup.

Work around: No workaround available.

Impacted Release(s): 1.10.0, 1.30.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.13 MCALLIB

14.13.1 0000053912-8083

Issue description: McalLib ARXML file issue results in RTE generation issue with Mentor RTE tool..

Impact: Customer cannot generate RTE with Mentor RTE tool because of the invalid reference types used in BSWMD ARXML.

Work around: None.

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.14 MCU

14.14.1 0000053912-7423

Issue description: Tresos allows invalid FSI2 Div Update in CCUCON0 Register.

Impact: Incorrect divider values generated in Mcu_PBCfg.c for FSI and FSI2 clocks if SRI frequency is less than PLL0 frequency.

Work around: SRI frequency should be equal to PLL0 frequency.

Note: No workaround possible if SRI frequency is less than PLL0 frequency.

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.14.2 0000053912-7774

Issue description: Code Sequence issue in Mcu_17_Gtm_AtomChannelShadowTransfer.

Impact:

From MCAL perspective,

- No impact during driver initialization, only for runtime APIs

- Only ADC driver calls Mcu_17_Gtm_AtomChannelShadowTransfer() in Adc_EnableHardwareTrigger() and Adc_StartGroupConversion() at runtime. If User calls the above mentioned ADC APIs in a re-entrant manner, deadlock may occur and Spinlock might never be acquired by the re-entrant API.

From MCU GTM library's perspective, if Mcu_17_Gtm_AtomChannelShadowTransfer() is called in a re-entrant manner, deadlock may occur and Spinlock might never be acquired by the re-entrant API.

Work around: User can use any one of the workarounds:

1. The APIs Adc_EnableHardwareTrigger(), Adc_StartGroupConversion() or Mcu_17_Gtm_AtomChannelShadowTransfer() should be treated as non-re-entrant APIs.

2. User shall disable interrupts before invoking APIs Adc_EnableHardwareTrigger(), Adc_StartGroupConversion() or Mcu_17_Gtm_AtomChannelShadowTransfer().

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.14.3 0000053912-8072

Issue description: Selecting external input for oscillator source will generate wrong OSCVAL value.

Impact: To detect malfunction of oscillator, oscillator watchdog monitors the actual incoming clock frequency Fosc. The expected input frequency of Fosc is selected through OSCCON.OSCVAL. If the Oscillator mode is

selected as External Input Clock mode, OSCVAL is wrongly configured as 0. This may cause SMU Oscillator watchdog alarms even though there is no malfunction of oscillator.

Work around: SMU Oscillator watchdog alarms should not be enabled if Oscillator mode is selected as External Input Clock mode. If customer needs this safety measure, there are no other workarounds.

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.14.4 0000053912-7108

Issue description: fSource2 is mapped to wrong Tresos Parameter in User manual.

Impact: The configuration parameter McuClockReferencePointFrequency2 has a typo error in the UM description and may lead to confusion for customer.

Work around: McuClockReferencePointFrequency2 to be treated as fSOURCE2.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

14.14.5 0000053912-8800

Issue description: Generation error when MSC frequency is set to 0 while source frequency is not disabled.

Impact: Configuration generation error will occur when McuMscClockSourceSelection != MSC_CLOCK_SOURCE_DISABLED_SEL0 and McuMscFrequency = 0.

Work around: Customer shall configure one of the workarounds:
1) If MSC clock is used, then McuMscFrequency shall be > 0 if McuMscClockSourceSelection != MSC_CLOCK_SOURCE_DISABLED_SEL0
2) If MSC clock is not used, McuMscClockSourceSelection shall be set to MSC_CLOCK_SOURCE_DISABLED_SEL0.

Impacted Release(s): 1.10.0, 1.30.0

Impacted AUTOSAR Version(s): AS 4.2.2

14.15 OCU

14.15.1 0000053912-9015

Issue description: BSWMD - Module Dependency Section is incorrect.

Impact: The BSW-MODULE-DEPENDENCY for Mcu interfaces are missing in the BSWMD file. The missing interfaces are:
Mcu_17_Gtm_AtomChEndisCtrlUpdate
Mcu_17_Gtm_AtomChEndisStatUpdate
Mcu_17_Gtm_AtomChInitCheck

Mcu_17_Gtm_AtomChOutEnCtrlUpdate
Mcu_17_Gtm_AtomChOutEnStatUpdate
Mcu_17_Gtm_AtomChUpdateEnDis
Mcu_17_Gtm_AtomChannelDeInit
Mcu_17_Gtm_AtomChannelDisable
Mcu_17_Gtm_AtomChannelShadowTransfer
Mcu_17_Gtm_TomChInitCheck
Mcu_17_Gtm_TomChUpdateEnDis
Mcu_17_Gtm_TomChannelDisable
Mcu_17_Gtm_TomChannelShadowTransfer.

Work around: User shall modify the generated ARXML file by adding the following missed sections:

1) Under <SHORT-NAME>McuDependency</SHORT-NAME> tag, add missed Mcu Timer APIs entries under <REQUIRED-ENTRYS> tag:

<BSW-MODULE-ENTRY-REF-CONDITIONAL>

<BSW-MODULE-ENTRY-REF DEST="BSW-MODULE-ENTRY">/AUTOSAR_Mcu/BswModuleEntrys/Mcu_17_Gtm_AtomChEndisCtrlUpdate</BSW-MODULE-ENTRY-REF>

</BSW-MODULE-ENTRY-REF-CONDITIONAL>

<BSW-MODULE-ENTRY-REF-CONDITIONAL>

<BSW-MODULE-ENTRY-REF DEST="BSW-MODULE-ENTRY">/AUTOSAR_Mcu/BswModuleEntrys/Mcu_17_Gtm_AtomChEndisStatUpdate</BSW-MODULE-ENTRY-REF>

</BSW-MODULE-ENTRY-REF-CONDITIONAL>

<BSW-MODULE-ENTRY-REF-CONDITIONAL>

<BSW-MODULE-ENTRY-REF DEST="BSW-MODULE-ENTRY">/AUTOSAR_Mcu/BswModuleEntrys/Mcu_17_Gtm_AtomChInitCheck</BSW-MODULE-ENTRY-REF>

</BSW-MODULE-ENTRY-REF-CONDITIONAL>

<BSW-MODULE-ENTRY-REF-CONDITIONAL>

<BSW-MODULE-ENTRY-REF DEST="BSW-MODULE-ENTRY">/AUTOSAR_Mcu/BswModuleEntrys/Mcu_17_Gtm_AtomChOutEnCtrlUpdate</BSW-MODULE-ENTRY-REF>

</BSW-MODULE-ENTRY-REF-CONDITIONAL>

<BSW-MODULE-ENTRY-REF-CONDITIONAL>

```
          <BSW-MODULE-ENTRY-REF DEST="BSW-MODULE-
ENTRY">/AUTOSAR_Mcu/BswModuleEntrys/Mcu_17_Gtm_AtomChOutEnStatUpdate</BSW-MODULE-ENTRY-
REF>

           </BSW-MODULE-ENTRY-REF-CONDITIONAL>

          <BSW-MODULE-ENTRY-REF-CONDITIONAL>

           <BSW-MODULE-ENTRY-REF DEST="BSW-MODULE-
ENTRY">/AUTOSAR_Mcu/BswModuleEntrys/Mcu_17_Gtm_AtomChUpdateEnDis</BSW-MODULE-ENTRY-REF>

          </BSW-MODULE-ENTRY-REF-CONDITIONAL>

          <BSW-MODULE-ENTRY-REF-CONDITIONAL>

           <BSW-MODULE-ENTRY-REF DEST="BSW-MODULE-
ENTRY">/AUTOSAR_Mcu/BswModuleEntrys/Mcu_17_Gtm_AtomChannelDeInit</BSW-MODULE-ENTRY-REF>

          </BSW-MODULE-ENTRY-REF-CONDITIONAL>

          <BSW-MODULE-ENTRY-REF-CONDITIONAL>

           <BSW-MODULE-ENTRY-REF DEST="BSW-MODULE-
ENTRY">/AUTOSAR_Mcu/BswModuleEntrys/Mcu_17_Gtm_AtomChannelDisable</BSW-MODULE-ENTRY-REF>

          </BSW-MODULE-ENTRY-REF-CONDITIONAL>

           <BSW-MODULE-ENTRY-REF-CONDITIONAL>

          <BSW-MODULE-ENTRY-REF DEST="BSW-MODULE-
ENTRY">/AUTOSAR_Mcu/BswModuleEntrys/Mcu_17_Gtm_AtomChannelShadowTransfer</BSW-MODULE-
ENTRY-REF>

           </BSW-MODULE-ENTRY-REF-CONDITIONAL>

          <BSW-MODULE-ENTRY-REF-CONDITIONAL>

           <BSW-MODULE-ENTRY-REF DEST="BSW-MODULE-
ENTRY">/AUTOSAR_Mcu/BswModuleEntrys/Mcu_17_Gtm_TomChInitCheck</BSW-MODULE-ENTRY-REF>

          </BSW-MODULE-ENTRY-REF-CONDITIONAL>

          <BSW-MODULE-ENTRY-REF-CONDITIONAL>

           <BSW-MODULE-ENTRY-REF DEST="BSW-MODULE-
ENTRY">/AUTOSAR_Mcu/BswModuleEntrys/Mcu_17_Gtm_TomChUpdateEnDis</BSW-MODULE-ENTRY-REF>

          </BSW-MODULE-ENTRY-REF-CONDITIONAL>

          <BSW-MODULE-ENTRY-REF-CONDITIONAL>
```

<BSW-MODULE-ENTRY-REF DEST="BSW-MODULE-ENTRY">/AUTOSAR_Mcu/BswModuleEntrys/Mcu_17_Gtm_TomChannelDisable</BSW-MODULE-ENTRY-REF>

</BSW-MODULE-ENTRY-REF-CONDITIONAL>

<BSW-MODULE-ENTRY-REF-CONDITIONAL>

<BSW-MODULE-ENTRY-REF DEST="BSW-MODULE-ENTRY">/AUTOSAR_Mcu/BswModuleEntrys/Mcu_17_Gtm_TomChannelShadowTransfer</BSW-MODULE-ENTRY-REF>

</BSW-MODULE-ENTRY-REF-CONDITIONAL>

2) Under <SHORT-NAME>McalLibDependency</SHORT-NAME> tag, add below entry:

<BSW-MODULE-DEPENDENCY>

<SHORT-NAME>McalSafetyErrorDependency</SHORT-NAME>

<TARGET-MODULE-ID>255</TARGET-MODULE-ID>

<REQUIRED-ENTRYS>

<BSW-MODULE-ENTRY-REF-CONDITIONAL>

<BSW-MODULE-ENTRY-REF DEST="BSW-MODULE-ENTRY">/AUTOSAR_Stub/BswModuleEntrys/Mcal_ReportSafetyError</BSW-MODULE-ENTRY-REF>

</BSW-MODULE-ENTRY-REF-CONDITIONAL>

</REQUIRED-ENTRYS>

</BSW-MODULE-DEPENDENCY>

Impacted Release(s): 1.30.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.16 PORT

14.16.1 0000053912-7526

Issue description: PortPinMode configuration for Port 40 and Port41 is not available for customers who do not use Tresos as the configuration tool.

Impact: Tresos tool does not export the PortPinMode container information in the AUTOSAR format arxml file for Ports 40 and 41 only. Customers who are using any other configuration tool apart from Tresos, this information will be missing.

Work around: After importing the generated arxml file, customer shall manually add the Port 40 and Port 41 configurations in the AUTOSAR configuration tool.

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.16.2 0000053912-7344

Issue description: Port_SetPinDirection range check is missing for Direction input parameter.

Impact: Range check is not done for input parameter Direction and no error shall be reported if wrong values are passed. If wrong value is passed, the direction will made as Input.

Work around: User shall ensure PORT_PIN_IN (0) or PORT_PIN_OUT (0x80) is passed for the input parameter Direction in Port_SetPinDirection API.

Note: for 1.30.0, this limitation is documented in UM.

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.17 PWM

14.17.1 0000053912-7131

Issue description: TOM_CH_IRQ_NOTIFY Register is not cleared after Pwm_DeInit.

Impact: Spurious Interrupt might occur while Pwm_17_GtmCcu6_Deinit for the active PWM channels, before they are de-initialized. However no functional impact.

Work around: User should ignore the spurious PWM interrupts after invocation of Pwm_17_GtmCcu6_Deinit.

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.17.2 0000053912-8454

Issue description: Glitch in Pwm_Init if default TOUT is used for other TOM/ATOM channels.

Impact: Initialization of one of the GTM PWM channels may trigger a glitch on the output pins of other TOUTSEL/S. The scenario occurs when the affected TOUTSEL/s holds a default value (HW reset value) such that the channel under initialization is driving the affected TOUTSEL (in turn the port pin also). Hence, during the initialization phase a glitch is observed on such channels.

Work around: In order to avoid such a glitch on the port pins, the user may follow one of the following workarounds:
• To set the port pins used by the PWM channels as input during the initialization phase of the PWM driver. After completion of the initialization, the port pin's ALT mode can be restored to PWM.
• To set the port pins used for PWM channels as "Output Low" or "Output High" during the initialization phase of the PWM driver. After completion of the initialization, the port pin's ALT mode can be restored to PWM.

Impacted Release(s): 1.10.0, 1.30.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.18 SMU

14.18.1 0000053912-7759

Issue description: Smu_RegisterMonitor() returns E_OK even when fault is detected in a safety flip-flop protected register.

Impact: UM Description of Smu_RegisterMonitor() API is ambiguous with respect to return value and output parameter RegMonResult. However no functional impact.

Work around: Description of Smu_RegisterMonitor() API should be read as follows:

The purpose of the Smu_RegisterMonitor() API is to provide the initialization, execution and termination of the Safety Flip Flop tests to be executed for different modules as enabled in input parameter RegMonPtr.

The prerequisites for Register monitor test shall be taken care by the user as mentioned in the HW UM before invoking the Smu_RegisterMonitor() API.

The API returns E_OK only if the test execution was completed successfully irrespective of SFF failures.

The parameter RegMonResult is populated based on the result of SFF tests run for the enabled modules after checking the RMEF.

RegMonResult needs to be checked only when Smu_RegisterMonitor() returns E_OK.

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.18.2 0000053912-8463

Issue description: Register Monitor Test Timeout for different IOM frequency.

Impact: For IOM Frequency < 1MHz, Smu_RegisterMonitor() API may report a DEM failure because the IOM register monitor test status has not completed within the desired time. The timeout value was derived based on Safety Manual 1.04.

Work around: Customer shall ensure IOM frequency >= 1MHz if IOM Functional block is configured for Register monitoring test in Smu_RegisterMonitor() API.

Impacted Release(s): 1.10.0, 1.30.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.19 SPI

14.19.1 0000053912-7235

Issue description: Implementation of Spi_ControlLoopBack is not robust.

Impact:

a. Spi_kernelLoopBackState variable is not partitioned across cores, so if ASIL partition is done for variables allocated to cores this variable cannot be partitioned since it is allocated to single core.

b. Loopback mode can be enabled / disabled when transmission is in progress.

Work around:

a. None

b. Spi_ControlLoopBack API shall not be invoked while transmission is in progress.

Note: Application to make sure that the Spi_ControlLoopBack API to be called for enabling / disabling the loopback on 'sequence end notification', when complete transmission of sequence is done.

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.19.2 0000053912-7669

Issue description: Calling SchM_Exit_Spi_Queue_Update() twice when SPI_SEQ_PENDING in Async_Transmit causing error in OS.

Impact: Un-predictable behavior. However this can be observed when DET is enabled and DET will be reported if such scenario occurs.

Work around: Spi_GetSequenceResult API to be used to check the status of sequence 'is not in SPI_SEQ_PENDING' before calling successive transmit of same sequence.

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.19.3 0000053912-9038

Issue description: For GetStatus() API, SPI_E_UNINIT DET reporting is not documented in User manual.

Impact: If customers enable the DET and call GetStatus() API, then SPI_E_UNINIT DET will be reported, though it is not documented in the user manual.

Work around: Customers to note that SPI_E_UNINIT DET will be reported in the scenario mentioned. No action is required to be taken as its expected behaviour.

Impacted Release(s): 1.10.0, 1.30.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.19.4 0000053912-8519

Issue description: Parameter SPI_INIT_CHECK_API in Tresos does not influence the code.

Impact: Spi_Initcheck() API is always enabled irrespective of corresponding APIs on-off configuration. However no functional impact.

Work around: No workaround available.

Impacted Release(s): 1.10.0, 1.30.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.19.5 0000053912-9020

Issue description: Reserved bit DMA ADICR is written with 1 instead of 0. This is not as per HW User manual recommendation.

Impact: Reserved bit23 of DMA ADICR register is written with value "1". No impact is seen in MCAL.

Work around: None.

Impacted Release(s): 1.10.0, 1.30.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.20 WDG

14.20.1 0000053912-7168

Issue description: No “DISABLE” action in "Mcu_17_Gtm_TomChannelDeInit."

Impact: The impact is only if Wdg is configured with the GTM timer. The impacted APIs are Wdg_17_Scu_Init(), Wdg_17_Scu_SetMode() and Wdg_17_Scu_SetTriggerCondition(). The first interrupt of the window period will be serviced earlier than the configured interval. The subsequent GTM interrupts for the window shall be serviced within the proper configured interval. However no functional impact foreseen but timing violations can be seen for the first window period.

Work around: No workaround for Wdg_17_Scu_Init(). User shall disable the GTM timer by calling Mcu_17_Gtm_TomChannelDisable() before invoking Wdg_17_Scu_SetTriggerCondition() or Wdg_17_Scu_SetMode() API.

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

14.20.2 0000053912-8790

Issue description: Issue in Wdg driver leading to safety error.

Impact: Undesired Safety error shall be reported with Error Id WDG_17_SCU_E_DRIVER_STATE in the WDG ISR if Wdg_17_Scu_SetTriggerCondition() API is pre-empted by the ISR after Wdg_17_Scu_DriverState is set to BUSY in the Wdg_17_Scu_SetTriggerCondition() API.

Work around: Customer shall disable WDG trigger interrupts before calling Wdg_17_Scu_SetTriggerCondition() API.

Impacted Release(s): 1.10.0, 1.30.0.

Impacted AUTOSAR Version(s): AS 4.2.2

15 Safety topics v2.0

This section lists safety anomalies and safety related updates related to production releases and maintenance releases.

15.1 HW safety manual

15.1.1 0000053912-8506

Issue description: Impact analysis of AURIX TC3xx Safety Manual 1.02/1.03 to MCAL 1.10.0 production release.

Impact: No functional or safety impact to product 1.10.0.

Work around: None.

Impacted Release(s): 1.10.0.

Impacted AUTOSAR Version(s): AS 4.2.2

16 Known issues v1.0

16.1 ADC

16.1.1 0000053912-6063

Issue description: Safety Error ADC_SE_PARAM_KERNEL is not reported when non available kernel (Within 0-11) is passed as parameter for interrupt handlers.
Impact: No safety error is reported if non-existent kernel ID is passed to ADC ISR routines. ISR exits without any adverse effect.
Work around: User shall ensure that plausible values are passed to the ADC ISR routines.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.2 CAN

16.2.1 0000053912-7064

Issue description: CAN messages are lost if Can_17_McmCan_Write() API is invoked for a HTH in re-entrant mode.
Impact: Can_17_McmCan_Write() API behaves as non-reentrant for the re-entrant HTH.
Work around: Can_17_McmCan_Write() shall not be invoked for a HTH in the re-entrant mode.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.2.2 0000053912-6838

Issue description: CAN driver provides wrong transmit confirmation to CanIf module.
Impact: If the Can_17_McmCan_Write() API is invoked for a HTH before receiving the transmit confirmation of the previous pending transmit request for the same HTH, the CAN driver may give incorrect transmit notifications.
Work around: Invoke Can_17_McmCan_Write() for a HTH only after receiving the transmit confirmation for the pending request for a HTH.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.2.3 0000053912-6701

Issue description: CAN-FD controller cannot use external oscillator as the clock source.
Impact: If the CAN-FD controller is configured to use external oscillator as clock source, then code generator gives an error. Hence CAN-FD controllers cannot use external oscillator as the clock source.
Work around: The CAN-FD controller shall be configured to a clock source other than external oscillator.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.3 DIO

16.3.1 0000053912-6170

Issue description: Dio_FlipChannel() API may return incorrect pin level.
Impact: Based on the strength of the pin driver and load capacitance, there may be a delay in flipping the channel. Hence, a wrong pin level may be returned by Dio_FlipChannel().
Work around: After Dio_FlipChannel(), user should call Dio_ReadChannel() API to ensure that the flipping of channel was successful.
Note: Time required to flip the channel is based on the high output load.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.4 FLS

16.4.1 0000053912-6598

Issue description: Fls_17_Dmu_Cancel function should reset the internal variables when a job is cancelled. But, currently Fls_17_Dmu_Cancel API does not reset the internal variables when the ongoing job is either an erase or a blank check.
Impact: There is no functional impact. The next request that follows the cancel will set the variables according to the requested job.
Work around: None.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.4.2 0000053912-7034

Issue description: FLS status gets set to the initialized in Fls_17_Dmu_Init() even if an operational error (OPER) is present.
Impact: FLS status is set to initialized even if an operational error (OPER) is present when Fls_17_Dmu_Init() executes.
Work around: If during FLS initialization (Fls_17_Dmu_Init) an illegal state notification is received, then the user should perform a system reset.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.4.3 0000053912-6912

Issue description: Runtime Errors for timeout are not reported in Fls_17_Dmu_Erase() and Fls_17_Dmu_Write().
Impact: User is not notified of a run time error.
Work around: As the run time error is not reported, the user has to check the return value of the called function. If a run time error occurs, then the return value of the called function will be E_NOT_OK.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.4.4 0000053912-6993

Issue description: In FLS standalone mode (without Infineon FEE), ECC errors are not cleared before triggering the write operations on DFLASH (in erase check).
Impact: ECC error is not detected in such a scenario but, PVER error will be detected in case the write/program operation fails. Additionally, if SAFETY or DET is enabled, the above mentioned write will be verified by matching the written data with the data in the source buffer and in case a difference is detected, the write operation fails with FLS_17_DMU_E_VERIFY_WRITE_FAILED DET/SAFETY error.
Work around: Not required.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.4.5 0000053912-6543

Issue description: Range for the parameter FlsWaitStateRead is incorrectly documented in the user manual due to a typographical error.
Impact: Wrong information in the user manual. Code is correct.
Work around: Correct range for the parameter FlsWaitStateRead is FLS_17_DMU_WAIT_STATE_READACCESS0 - FLS_17_DMU_WAIT_STATE_READACCESS255.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.5 General

16.5.1 0000053912-6784

Issue description: ARXML file cannot be used with Mentor RTE generator.
Impact: Customer cannot generate RTE with Mentor RTE tool because of the invalid reference type used in BSWMD ARXML for 'void' datatype. Impacted drivers are MCU, MCALLIB, FLSLOADER, HSSL, CanTrcv_17_V9251 and CanTrcv_17_W9255.
Work around: User shall modify the generated ARXML file by replacing the following
<BASE-TYPE-REF DEST="SW-BASE-TYPE">/AUTOSAR_Platform/ImplementationDataTypes/BaseTypes/void</BASE-TYPE-REF> with <IMPLEMENTATION-DATA-TYPE-REF DEST="IMPLEMENTATION-DATA-TYPE">/AUTOSAR_Platform/ImplementationDataTypes/BaseTypes/void</IMPLEMENTATION-DATA-TYPE-REF>.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.5.2 0000053912-7071

Issue description: Negative value check of Enum parameters is missing.

Impact: The driver does comparison checks against enum values considering it as a 32-bit unsigned integer. If user passes a negative value, the comparison fails and results in a wrong control flow. The impacted MCAL drivers are MCU, ICU, OCU and DMA.
Work around: Customer shall pass enum values as 32-bit unsigned integer.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.6 Ethernet

16.6.1 0000053912-6166

Issue description: If a frame exceeding the configured buffer size is received further frames cannot be received.
Impact: Ethernet driver stops receiving the frames.
Work around: User of the ETH driver must ensure that the EthCtrlRxBufLenByte parameter is configured with maximum packet size, including the header, as expected in the ETH bus. While configuring EthCtrlRxBufLenByte, the user shall consider broadcast frames also. If the maximum receive packet length is not known during the configuration, user shall configure the EthCtrlRxBufLenByte parameter to 1522.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.7 ICU

16.7.1 0000053912-6486

Issue description: GPT12 getinput state for multi-edge detection returning incorrect value. Input state for a GPT12 multi-edge detection channel returns incorrect value.
Impact: Icu_17_TimerIp_GetInputState()provides an invalid input state for multi-edge detection channel if notification is not enabled for the respective channel.
Work around: Channel notification shall be enabled for multi-edge detection channels to ensure that the channel status is read correctly.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.7.2 0000053912-6189

Issue description: Icu_17_TimerIP_SetActivationCondition is not setting the detect condition correctly (for ERU), when pre-empted by Enable Edge Detection API.
Impact: Icu_17_TimerIp_SetActivationCondition will have a corrupted active edge configuration if pre-empted by Icu_17_TimerIp_EnableEdgeDetection for that channel. This is applicable only if ERU is configured for that channel in edge detection mode.
Work around: User shall ensure Icu_17_TimerIp_SetActivationCondition is executed in critical section.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.7.3 0000053912-6173

Issue description: Icu_17_TimerIp_SetActivationCondition not clearing the channel status (for CCU6 and GPT12), if notification is not enabled.
Impact: Icu_17_TimerIp_SetActivationCondition returns a wrong channel status if invoked with disabled notifications for that channel. This applies only to GPT12 and CCU6.
Work around: Ensure Icu_17_TimerIp_EnableNotification is called before Icu_17_TimerIp_SetActivationCondition for channels associated with GPT12 and CCU6.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.8 LIN

16.8.1 0000053912-6547

Issue description: Incorrect reference path to McuClockReferencePointConfig in LIN BMD file.
Impact: Code generation for LIN module fails due to error in reference path to MCU module.
Work around: User has to manually update the LIN BMD file and correct the path as "/AURIX2G/EcucDefs/Mcu/McuModuleConfiguration/McuClockSettingConfig/McuClockReferencePointConfig" for the parameter "LinSysClockRef".
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.9 MCALLIB

16.9.1 0000053912-7192

Issue description: Incoherent memory read across cores.
Impact: If the LockAddress parameter passed to Mcal_ReleaseSpinlock() is placed in DLMU/DSPR, the value may not be written into the memory but stored in store buffer. Hence, reading from other cores will read the incoherent memory and may timeout to acquire the spinlock even though the acquired core has released it.
Work around:
User can choose one of the below:
- Place the variable in LMU
- Invoke DSYNC() after calling Mcal_ReleaseSpinlock().
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.10 MCU

16.10.1 0000053912-6712

Issue description: Divider for EXTCLK1 is not generated correctly in Mcu_PBCfg.c.
Impact: Correct frequency for EXTCLK1 is not generated.
Work around: fOut should not be selected for EXTCLK1 in the configuration tool.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.10.2 0000053912-6737

Issue description: Wrong ERU EIFR mask generation.
Impact: ERU HW is paired with two ERU channels. If customer selects only one of the ERU pair, a spurious interrupt is issued if an interrupt occurs on the other channel.
Work around: Always ensure both the channels of pairs are allocated/used. Currently only ICU driver uses ERU unit for interrupts.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.10.3 0000053912-7108

Issue description: fSource2 is mapped to the wrong Tresos Parameter in MCAL UM.
Impact: The configuration parameter McuClockReferencePointFrequency2 has a typographical error in the basic UM description for MCU driver and may confuse customers. No functional impact.
Work around: Customer should treat McuClockReferencePointFrequency2 as fSource2.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.10.4 0000053912-6028

Issue description: InitCheck() for ICU or GPT returns E_NOT_OK if GPT Timer3 and Timer6 have different pre-scalar values.
Impact: Gpt_InitCheck() API or Icu_17_TimerIp_InitCheck() API fails if customer configures GPT Timer3 and Timer6 with different pre-scalar values.
Work around: User can choose one of the below:

- Customer shall configure GPT Timer3 and Timer6 to have the same pre-scalar value.
- Customer shall configure any one of the GPT timers - either Timer3 or Timer6.

Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.11 PORT

16.11.1 0000053912-6762

Issue description: Variation option missing for AUTOSAR parameters.
Impact: Customer cannot configure the AUTOSAR Port parameters PortPinDirectionChangeable as Post Build Variation point.
Work around: No workaround available.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.11.2 0000053912-7344

Issue description: Range check missing for parameter Direction in Port_SetPinDirection().
Impact: Range check is not done for input parameter Direction and no error is reported if wrong values are passed. If a wrong value is passed, the pin Direction will be wrongly configured as Input.
Work around: User shall ensure that 0 or 0x80 is passed as the input parameter Direction for Port_SetPinDirection() API.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.12 PWM

16.12.1 0000053912-6549

Issue description: Link error when compiling the MCAL in Pwm_17_GtmCcu6.
Impact: Linker error for Pwm_lPolarity could occur for certain combinations of PWM configurations.
Work around: To avoid linker error, enable configuration for any one of the following features:
- PwmDeInitApi
- PwmNotificationSupported
- PwmSetOutputToIdle

Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.12.2 0000053912-6387

Issue description: Pwm_InitCheck() may incorrectly return E_NOT_OK for some CCU6 channel combinations.

Impact: Pwm_InitCheck() incorrectly returns E_NOT_OK if T13 for CCU60 or T12 for CCU61 is configured.

Work around: User shall not configure T13 for CCU60 or T12 for CCU61.

Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.13 SPI

16.13.1 0000053912-6783

Issue description: The SPI driver does not consider the interrupt enable status for spurious interrupt check.
Impact: If any SPI spurious interrupts are triggered in the controller, then the SPI driver will not report safety error SPI_E_SAFETY_SPURIOUS_INTERRUPT and behavior from SPI driver will be undefined.
Work around: User shall ensure that SPI interrupts are checked to be enabled before invoking the SPI interrupt handler.

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Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.14 UART

16.14.1 0000053912-6703

Issue description: Over Sampling parameter (UartChanBaudOverSampling) does not cover the complete range supported by the HW.
Impact: Though the possible range for oversampling field in BITCON register is 3 to 15, the values allowed to be configured in the UART driver configuration tool is 8 to 16. Hence, user cannot configure the oversampling values in the range 3 to 7 and also the value 16 is invalid.
Work around:

1. User shall not configure value 16 for UartChanBaudOverSampling.
2. There is no work around to configure the range from 3 to 7.

Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

16.15 WDG

16.15.1 0000053912-6684

Issue description: DET major version check has an incorrect dependency on "WdgSafetyEnable" parameter.
Impact: Unintended DET check for AUTOSAR major version happens if configuration parameter WdgDevErrorDetect is OFF but WdgSafetyEnable is ON. It should be dependent only when WdgDevErrorDetect is ON.
Work around: If DET is not used in the user environment, user shall include dummy Det.h file with the macro DET_AR_RELEASE_MAJOR_VERSION defined as 4.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

17 Safety topics v1.0

This section lists safety anomalies related to production releases and maintenance releases.

17.1 Safety case

17.1.1 0000053912-7283

Issue description: Incorrect ISO 26262 part number mentioned in 1.10.0 safety case, section 5.3.3.
Impact: It's a typographical error. No functional or safety impact.
Work around: Name of the figure 6 in section 5.3.3 is mentioned as 'Goal: fulfillment of system development requirements according to ISO 26262 Part 6'. Integrators to consider it as 'Goal: fulfillment of system development requirements according to ISO 26262 Part 4'.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

17.2 ISO 26262 Argumentation Sheet

17.2.1 0000053912-7228

Issue description: Method 'error guessing' was incorrectly marked as 'applicable' for unit testing in ISO26262 clauses argumentation sheet (Part 6, Table 11, method 1d).
Impact: Error guessing is not mandatory for ASIL B. In addition, unit test cases for boundary value and equivalence class cover all necessary test cases in the context of unit testing. Hence, there is no functional or safety impact.
Work around: In safety case for 1.10.0, in 'TC3xx_SW_MCAL_ISO26262_Argumentation.xlsx' document, Part 6, Table 11, Method 1d is marked as 'YES'. It must be treated as 'NO'.
Impacted Release(s): 1.10.0

Impacted AUTOSAR Version(s): AS 4.2.2

18 HW Derivative specification

This section explains the hardware derivatives supported and their respective property files. Customers must ensure that relevant range checks are implemented and tested as per applicable HW documentation.

18.1 Device support details:

Table 2 AURIXTM 2G Device Support TC39x BC/TC39x BD/TC38x AD/TC38x AE/TC37x AA/TC37xEXT AB/TC35x AB/TC36x AA/TC33x AA/TC33xEXT AA/TC32x AA

AURIX™ 2G device	Name displayed in Tresos Tool	Tresos Property File	Range check implemented in MCAL
SAK-TC332LP-32F300F	TC332	AURIX2G_TC332.properties	Yes
SAK-TC333LP-32F300F	TC333	AURIX2G_TC333.properties	Yes
SAK-TC334LP-32F300F	TC334	AURIX2G_TC334.properties	Yes
SAK-TC337LP-32F300S	TC337	AURIX2G_TC337.properties	Yes
SAK-TC336LP-32F300S	TC336	AURIX2G_TC336.properties	Yes
SAL-TC337LP-32F300S	TC337	AURIX2G_TC337.properties	Yes
SAL-TC336LP-32F300S	TC336	AURIX2G_TC336.properties	Yes
SAL-TC334LP-32F300F	TC334	AURIX2G_TC334.properties	Yes
SAL-TC333LP-32F300F	TC333	AURIX2G_TC333.properties	Yes
SAL-TC332LP-32F300F	TC332	AURIX2G_TC332.properties	Yes
SAK-TC356TA-64F300S	TC356_ADAS	AURIX2G_TC356_ADAS.properties	Yes
SAK-TC365DP-64F300W	TC365_LQFP	AURIX2G_TC365_LQFP.properties	Yes
SAK-TC364DP-64F300W	TC364_LQFP	AURIX2G_TC364_LQFP.properties	Yes
SAK-TC367DP-64F300S	TC367	AURIX2G_TC367.properties	Yes
SAK-TC364DP-64F300F	TC364_TQFP	AURIX2G_TC364_TQFP.properties	Yes
SAK-TC366DP-64F300S	TC366	AURIX2G_TC366.properties	Yes
SAL-TC365DP-64F200W	TC365	AURIX2G_TC365.properties	Yes
SAL-TC367DP-64F200S	TC367	AURIX2G_TC367.properties	No
SAL-TC364DP-64F200F	TC364_TQFP	AURIX2G_TC364_TQFP.properties	No
SAL-TC366DP-64F200S	TC366	AURIX2G_TC366.properties	No
SAL-TC364DP-64F200W	TC364_LQFP	AURIX2G_TC364_LQFP.properties	No
SAL-TC364DP-64F300W	TC364_LQFP	AURIX2G_TC364_LQFP.properties	Yes
SAL-TC377TP-96F300S	TC377	AURIX2G_TC377.properties	Yes
SAL-TC375TP-96F300W	TC375	AURIX2G_TC375.properties	Yes
SAL-TC377DP-96F300S	TC377	AURIX2G_TC377.properties	No
SAL-TC377TX-96F300S	TC377_ED_EX	AURIX2G_TC377_ED_EX.properties	Yes
SAK-TC389QP-160F300S	TC389	AURIX2G_TC389.properties	Yes

AURIX™ 2G device	Name displayed in Tresos Tool	Tresos Property File	Range check implemented in MCAL
SAK-TC387QP-160F300S	TC387	AURIX2G_TC387.properties	Yes
SAL-TC387QP-160F300S	TC387	AURIX2G_TC387.properties	Yes
SAL-TC389QP-160F300S	TC389	AURIX2G_TC389.properties	Yes
SAK-TC334LP-32F200F	TC334	AURIX2G_TC334.properties	No
SAK-TC337LP-32F200S	TC337	AURIX2G_TC337.properties	No
SAL-TC337LP-32F200S	TC337	AURIX2G_TC337.properties	No
SAL-TC334LP-32F200F	TC334	AURIX2G_TC334.properties	No
SAK-TC333LP-32F200F	TC333	AURIX2G_TC333.properties	No
SAL-TC333LP-32F200F	TC333	AURIX2G_TC333.properties	No
SAK-TC323LP-16F160F	TC323	AURIX2G_TC323.properties	No
SAK-TC324LP-16F160F	TC324	AURIX2G_TC324.properties	No
SAK-TC322LP-16F160F	TC322	AURIX2G_TC322.properties	Yes
SAK-TC332LP-32F200F	TC332	AURIX2G_TC332.properties	No
SAL-TC332LP-32F200F	TC332	AURIX2G_TC332.properties	No
SAK-TC323LP-24F200F	TC323	AURIX2G_TC323.properties	Yes
SAK-TC324LP-24F200F	TC324	AURIX2G_TC324.properties	Yes
SAK-TC323L-24F200F	TC323	AURIX2G_TC323.properties	No
SAK-TC324L-24F200F	TC324	AURIX2G_TC324.properties	No
SAK-TC336LP-32F200S	TC336	AURIX2G_TC336.properties	No
SAL-TC336LP-32F200S	TC336	AURIX2G_TC336.properties	No
SAL-TC323LP-16F160F	TC323	AURIX2G_TC323.properties	No
SAL-TC324LP-16F160F	TC324	AURIX2G_TC324.properties	No
SAL-TC322LP-16F160F	TC322	AURIX2G_TC322.properties	Yes
SAL-TC327LP-16F160S	TC327	AURIX2G_TC327.properties	Yes
SAK-TC333L-32F200F	TC333	AURIX2G_TC333.properties	No
SAK-TC334L-32F200F	TC334	AURIX2G_TC334.properties	No
SAL-TC333L-32F200F	TC333	AURIX2G_TC333.properties	No
SAL-TC334L-32F200F	TC334	AURIX2G_TC334.properties	No
SAK-TC327LP-16F160S	TC327	AURIX2G_TC327.properties	Yes
SAL-TC323LP-24F200F	TC323	AURIX2G_TC323.properties	Yes
SAL-TC324LP-24F200F	TC324	AURIX2G_TC324.properties	Yes
SAL-TC323L-24F200F	TC323	AURIX2G_TC323.properties	No
SAL-TC324L-24F200F	TC324	AURIX2G_TC324.properties	No
SAK-TC322LS-24F160F	TC322	AURIX2G_TC322.properties	No

AURIX™ 2G device	Name displayed in Tresos Tool	Tresos Property File	Range check implemented in MCAL
SAK-TC323LS-24F160F	TC323	AURIX2G_TC323.properties	No
SAK-TC332LS-32F200F	TC332	AURIX2G_TC332.properties	No
SAK-TC357TA-64F300S	TC357_ADAS	AURIX2G_TC357_ADAS.properties	No
SAK-TC357TH-64F300S	TC357_ADAS	AURIX2G_TC357_ADAS.properties	No
SAK-TC356TH-64F300S	TC356_ADAS	AURIX2G_TC356_ADAS.properties	No
SAK-TC356TD-48F300S	TC356_ADAS	AURIX2G_TC356_ADAS.properties	No
SAK-TC367VB-32F200S	TC367	AURIX2G_TC367.properties	No
SAK-TC367V0-64F300S	TC367	AURIX2G_TC367.properties	No
SAL-TC367DP-64F300S	TC367	AURIX2G_TC367.properties	Yes
SAL-TC365DP-64F300W	TC365_LQFP	AURIX2G_TC365_LQFP.properties	Yes
SAK-TC365DP-64F200W	TC365_LQFP	AURIX2G_TC365_LQFP.properties	No
SAK-TC367DP-48F200S	TC367	AURIX2G_TC367.properties	No
SAL-TC364DP-64F300F	TC364_TQFP	AURIX2G_TC364_TQFP.properties	Yes
SAK-TC364DP-48F300F	TC364_TQFP	AURIX2G_TC364_TQFP.properties	No
SAK-TC364DP-48F200F	TC364_TQFP	AURIX2G_TC364_TQFP.properties	No
SAL-TC366DP-64F300S	TC366	AURIX2G_TC366.properties	Yes
SAK-TC367DP-48F300S	TC367	AURIX2G_TC367.properties	No
SAK-TC364DP-64F200W	TC364_LQFP	AURIX2G_TC364_LQFP.properties	No
SAK-TC367DP-64F200S	TC367	AURIX2G_TC367.properties	No
SAK-TC364DP-64F200F	TC364_TQFP	AURIX2G_TC364_TQFP.properties	No
SAK-TC366DP-64F200S	TC366	AURIX2G_TC366.properties	No
SAK-TC377TP-96F300S	TC377	AURIX2G_TC377.properties	Yes
SAK-TC375TP-96F300W	TC375	AURIX2G_TC375.properties	Yes
SAK-TC377DP-96F300S	TC377	AURIX2G_TC377.properties	No
SAK-TC375DP-96F300W	TC375	AURIX2G_TC375.properties	No
SAL-TC375DP-96F300W	TC375	AURIX2G_TC375.properties	No
SAK-TC375TI-96F300W	TC375	AURIX2G_TC375.properties	No
SAL-TC375TI-96F300W	TC375	AURIX2G_TC375.properties	No
SAK-TC377TX-96F300S	TC377_ED_EX	AURIX2G_TC377_ED_EX.properties	Yes
SAK-TC377TX-64F300S	TC377_ED_EX	AURIX2G_TC377_ED_EX.properties	No
SAK-TC387TP-128F300S	TC387	AURIX2G_TC387.properties	No
SAK-TC387QN-160F300S	TC387	AURIX2G_TC387.properties	No
SAK-TC389QN-160F300S	TC389	AURIX2G_TC389.properties	No
SAL-TC387TP-128F300S	TC387	AURIX2G_TC387.properties	No

AURIX™ 2G device	Name displayed in Tresos Tool	Tresos Property File	Range check implemented in MCAL
SAK-TC387TP-160F300S	TC387	AURIX2G_TC387.properties	No
SAL-TC387TP-160F300S	TC387	AURIX2G_TC387.properties	No
SAL-TC399XX-256F300S	TC399	AURIX2G_TC399.properties	No
SAL-TC399XP-256F300S	TC399	AURIX2G_TC399.properties	No
SAL-TC397XP-256F300S	TC397	AURIX2G_TC397.properties	No
SAK-TC399XP-256F300S	TC399	AURIX2G_TC399.properties	No
SAK-TC399XX-256F300S	TC399	AURIX2G_TC399.properties	No
SAK-TC397XP-256F300S	TC397	AURIX2G_TC397.properties	No
SAK-TC397XA-256F300S	TC397_ADAS	AURIX2G_TC397_ADAS.properties	No
SAK-TC397QA-160F300S	TC397_ADAS	AURIX2G_TC397_ADAS.properties	No
SAK-TC397QP-192F300S	TC397	AURIX2G_TC397.properties	No
SAK-TC397QP-256F300S	TC397	AURIX2G_TC397.properties	No
SAK-TC397XZ-256F300S	TC397	AURIX2G_TC397.properties	No
SAK-TC397XM-256F300S	TC397	AURIX2G_TC397.properties	No
SAL-TC397QP-192F300S	TC397	AURIX2G_TC397.properties	No
SAL-TC397QP-256F300S	TC397	AURIX2G_TC397.properties	No
SAL-TC397XZ-256F300S	TC397	AURIX2G_TC397.properties	No
SAL-TC397XX-256F300S	TC397	AURIX2G_TC397.properties	No
SAK-TC399QP-192F300S	TC399	AURIX2G_TC399.properties	No
SAK-TC397XX-256F300S	TC397	AURIX2G_TC397.properties	No

Note: **1.** *For TC38x, TC39x, TC37x, TC37xEXT, TC36x, TC35x, TC33x, TC33xEXT marking option device support, range check has to be imposed by user, and not in the MCAL code.*

2. *TC32x marking option device support is added in MCAL through configuration.*

19 Compiler Known Issues

19.1 GreenHills v2021

19.1.1 0000053912-17780

Issue description: Analysis of compiler errata TOOLSCL-1411, TOOLSCL-1420 and TOOLSCL-1424.

Impact: Compiler errata issues not seen/reproduced during internal testing of MCAL with the published compiler options. Customer shall analyze the impact of compiler errata for their application with MCAL.

Work around: No impact seen in MCAL. Refer workarounds in compiler errata if customer application is affected.
Impacted Release(s): 2.10.0

19.2 GreenHills v2018

19.2.1 0000053912-5846

Issue description: Analysis of compiler errata TOOLSCL-1022, TOOLSCL-1049 and TOOLSCL-1055

Impact: Compiler errata issues not seen/reproduced during internal testing of MCAL with the published compiler options. Customer shall analyze the impact of compiler errata for their application with MCAL.

Work around: No impact seen in MCAL. Refer workarounds in compiler errata if customer application is affected.

Impacted Release(s): 1.30.0, 1.40.0, 2.0.0

19.2.2 0000053912-6878

Issue description: Analysis of compiler errata TOOLSCL-1086 and TOOLSCL-1087

Impact: Compiler errata issues not seen/reproduced during internal testing of MCAL with the published compiler options. Customer shall analyze the impact of compiler errata for their application with MCAL.

Work around: No impact seen in MCAL. Refer workarounds in compiler errata if customer application is affected.

Impacted Release(s): 1.30.0, 1.40.0, 2.0.0

19.2.3 0000053912-8422

Issue description: Analysis of compiler errata TOOLSCL-1122 and TOOLSCL-1146

Impact: Compiler errata issues not seen/reproduced during internal testing of MCAL with the published compiler options. Customer shall analyze the impact of compiler errata for their application with MCAL.

Work around: No impact seen in MCAL. Refer workarounds in compiler errata if customer application is affected.

Impacted Release(s): 1.30.0, 1.40.0, 2.0.0

19.3 Tasking

19.3.1 0000053912-17779

Issue description: Analysis of compiler errata TCVX-44645.

Impact: Issue not seen/reproduced during internal testing of MCAL with the published compiler options. Customer shall analyze the impact of compiler errata TCVX-44645 for their application with MCAL. Customer can also monitor for any bus errors, as the usage of the double word instructions for the access over FPI would result in an bus errors.
Work around: None.

Impacted Release(s): 1.40.0, 2.0.0, 2.10.0

19.3.2 0000053912-17487

Issue description: Analysis of compiler errata TCVX-43998.

Impact: Issue not seen/reproduced during internal testing of MCAL with the published compiler options. Customer shall analyze the impact of compiler errata TCVX-43998 for their application with MCAL.

Work around: None.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0, 2.10.0

19.3.3 0000053912-11963

Issue description: Analysis of compiler errata TCVX-44257.

Impact: Issue not seen/reproduced during internal testing of MCAL with the published compiler options. Customer shall analyze the impact of compiler errata TCVX-44257 for their application with MCAL.

Work around: None.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0, 2.10.0

19.3.4 0000053912-11963

Issue description: Analysis of compiler errata TCVX-44102.

Impact: Issue not seen/reproduced during internal testing of MCAL with the published compiler options. Customer shall analyze the impact of compiler errata TCVX-44102 for their application with MCAL.

Work around: None.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

19.3.5 0000053912-13111

Issue description: Analysis of compiler errata TCVX-44325

Impact: Due to code compaction optimization (reverse in-lining), possibility to trigger a run-time stack pointer alignment error if stack pointer alignment protection is enabled on the hardware.

Work around:
1) Do not disable the Interrupt Stack in hardware, OR
2) Do not enable stack pointer check in hardware.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0, 2.10.0

19.3.6 0000053912-15836

Issue description: Analysis of compiler errata TCVX-44387.

Impact: Compiler errata issues not seen/reproduced during internal testing of MCAL with the published compiler options. Customer shall analyze the impact of compiler errata TCVX-44387 for their application with MCAL.

Work around: No impact seen in MCAL. Refer workarounds in compiler errata if customer application is affected.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0, 2.10.0

19.3.7 0000053912-15836

Issue description: Analysis of compiler errata TCVX-44339.

Impact: Compiler errata issues not seen/reproduced during internal testing of MCAL with the published compiler options. Customer shall analyze the impact of compiler errata TCVX-44339 for their application with MCAL.

Work around: No impact seen in MCAL. Refer workarounds in compiler errata if customer application is affected.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0

19.3.8 0000053912-16537

Issue description: Analysis of compiler errata TCVX-44453

Impact: Compiler errata issues not seen/reproduced during internal testing of MCAL with the published compiler options. Customer shall analyze the impact of compiler errata TCVX-44453 for their application with MCAL.

Work around: No impact seen in MCAL. Refer workarounds in compiler errata if customer application is affected.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0, 2.10.0

19.3.9 0000053912-6844

Issue description: Analysis of compiler errata TCVX-43893,TCVX-43916 and TCVX-43928.

Impact: Issue is not seen/reproduced during internal testing of MCAL with the published compiler options. Customer SHALL analyze the impact of Tasking 6.2r2p2 compiler erratas TCVX-43893, TCVX-43916, TCVX-43928 for their application with MCAL.
Note: These erratas are fixed in Tasking 6.3r1p1.

Work around: None. The issue is not observed during internal testing of the MCAL.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

19.3.10 0000053912-17153

Issue description: Analysis of compiler errata TCVX-44522.

Impact: No impact seen to MCAL drivers. MCAL provides DSYNC compiler abstraction by using the Tasking compiler intrinsic function. Application software should refrain from using this directly or take precautions as mentioned in the tasking compiler errata TCVX-44522 if using the macro 'DSYNC' defined by MCAL software.
Work around: Refer the workaround as given in Tasking compiler errata TCVX-44522.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0, 2.10.0

19.4 WindRiver

19.4.1 0000053912-4921

Issue description: Analysis of compiler errata TCDIAB-14623

Impact: Issue not seen/reproduced during internal testing of MCAL with the published compiler options. Customer shall analyse the impact of compiler errata TCDIAB-14623 for their application with MCAL.

Work around: None.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0, 2.10.0

19.4.2 0000053912-11970

Issue description: Analysis of compiler errata TCDIAB-14967

Impact: Issue not seen/reproduced during internal testing of MCAL with the published compiler options. Customer shall analyse the impact of compiler errata TCDIAB-14967 for their application with MCAL.

Work around: None.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0, 2.10.0

19.4.3 0000053912-15839

Issue description: Analysis of compiler errata TCDIAB-13360 and TCDIAB-13304.

Impact: TCDIAB-13360 : MCAL uses "volatile const" qualifiers with pointers to access registers. Compiler vendor confirms this issue does not apply to pointers.

TCDIAB-13304 : Optimization of stack not proper. No functional impact.

No impact seen to MCAL and issues not seen/reproduced during internal testing of MCAL with the published compiler options. Customer shall analyze the impact of compiler errata for their application with MCAL.

Work around: No impact seen in MCAL. Refer workarounds in compiler errata if customer application is affected.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0, 2.0.0, 2.10.0

19.4.4 0000053912-16538

Issue description: Analysis of compiler errata TCDIAB-14878

Impact: Compiler errata issues not seen/reproduced during internal testing of MCAL with the published compiler options. Customer shall analyze the impact of compiler errata TCDIAB-14878 for their application with MCAL.

Work around: No impact seen in MCAL. Refer workarounds in compiler errata if customer application is affected.

Impacted Release(s): 1.10.0, 1.30.0, 1.40.0

20 Acronyms, abbreviations and integration support

Please refer to AURIX 2G HW user manual and MC-ISAR_AS4xx_TC3xx user manual. In case of any queries or support required to implement the work around, contact field application engineers.

Revision History

Date	Version	Description
2019-07-22	v1.0	Reviewed and released for issues reported post first production release until Jun. 21st 2019.
2020-01-21	v2.0	• Updated for issues reported from 22nd Jun. 2019 to 20th Nov. 2019. • Chapter 'HW Derivative specification' updated as per latest HW documentation. • Updated the file name in line with product name. • Issue from RNA v1.0, 0000053912-7344 was updated to enhance the descriptions. Issue 0000053912-7530 was deleted as it had same information as in 0000053912-7697. • Chapter name for JIRA 0000053912-6166 changed from GETH to Ethernet to ensure consistency of driver names.
2020-04-30	v3.0	• Updated for issues reported until 9th Apr. 2020. • Chapter 'HW Derivative specification' updated as per latest HW documentation.
2020-08-06	v4.0	• Updated for issues reported until 16th Jul. 2020. • Issue from RNA v3.0, 0000053912-10645 was updated and added to RNA v4.0 to correct the 'Impacted Releases'.
2020-11-04	v5.0	• Updated for issues processed until 10th Oct. 2020. • Chapter 'HW Derivative specification' updated as per latest HW documentation. • Issue from RNA v4.0, 0000053912-12336 was updated and added to RNA v5.0 to correct the 'Impacted Releases'. • Issue from RNA v4.0, 0000053912-8814 was updated and added to RNA v5.0 to correct the 'Impact' and 'Workaround'.
2021-03-05	v6.0	• Updated for issues processed until 8th Feb. 2021.
2021-06-25	v7.0	• Updated for issues processed until 31st May'2021. • Added Compiler Known Issues List. • Added Impacted AUTOSAR versions for all Known Issues.
2021-09-20	v8.0	• Updated for issues processed until 31st Aug'2021. • Updated Compiler Known Issues List. • Issue from RNA v5.0, 0000053912-13551 updated and added to RNA v8.0. • Issue from RNA v5.0, 0000053912-12690 updated and added to RNA v8.0.
2021-12-20	V9.0	• Updated for issues processed until 30th Nov'2021. • Updated Compiler Known Issues List. • Issue from RNA v8.0, 0000053912-17562 updated and added to RNA v9.0. • Issue from RNA v8.0, 0000053912-17606 updated and added to RNA v9.0. • Issue from RNA v8.0, 0000053912-17519 updated and added to RNA v9.0. • Issue from RNA v8.0, 0000053912-17534 updated and added to RNA v9.0. • Issue from RNA v8.0, 0000053912-17527 updated and added to RNA v9.0. • Chapter 'HW Derivative specification' updated as per 0000053912-17495. • Issue from RNA v5.0, 0000053912-15450 updated and added to RNA v9.0.

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Information note N° 10304AERRA

MC-ISAR_AURIX Release Notes Addendum V9.0 affecting products TC3xx

Sales name	SP number	OPN	Package
SAK-TC322LP-16F160F AA	SP004264612	TC322LP16F160FAAKXUMA1	PG-TQFP-80-7
SAK-TC332LP-32F200F AA	SP004264616	TC332LP32F200FAAKXUMA1	PG-TQFP-80-7
SAK-TC332LP-32F300F AA	SP004974864	TC332LP32F300FAAKXUMA1	PG-TQFP-80-7
SAK-TC333LP-32F300F AA	SP004974874	TC333LP32F300FAAKXUMA1	PG-TQFP-100-23
SAK-TC334LP-32F200F AA	SP001724294	TC334LP32F200FAAKXUMA1	PG-TQFP-144-27
SAK-TC334LP-32F300F AA	SP004974878	TC334LP32F300FAAKXUMA1	PG-TQFP-144-27
SAK-TC337DA-32F300S AA	SP004974938	TC337DA32F300SAAKXUMA1	PG-LFBGA-292-13
SAK-TC337DZ-32F200S AA	SP002268356	TC337DZ32F200SAAKXUMA1	PG-LFBGA-292-13
SAK-TC337LP-32F300S AA	SP004974944	TC337LP32F300SAAKXUMA1	PG-LFBGA-292-11
SAK-TC356TA-64F300S AB	SP003833202	TC356TA64F300SABKXUMA1	PG-LFBGA-180-1
SAK-TC356TD-48F300S AB	SP005424938	TC356TD48F300SABKXUMA1	PG-LFBGA-180-1
SAK-TC356TH-64F300S AB	SP004818890	TC356TH64F300SABKXUMA1	PG-LFBGA-180-1
SAK-TC357TA-64F300S AB	SP003803252	TC357TA64F300SABKXUMA1	PG-LFBGA-292-13
SAK-TC357TH-64F300S AB	SP003803258	TC357TH64F300SABKXUMA1	PG-LFBGA-292-13
SAK-TC364DP-48F300F AA	SP004577254	TC364DP48F300FAAKXUMA1	PG-TQFP-144-27
SAK-TC364DP-64F300F AA	SP001713956	TC364DP64F300FAAKXUMA1	PG-TQFP-144-27
SAK-TC364DP-64F300W AA	SP001714740	TC364DP64F300WAAKXUMA1	PG-LQFP-144-25
SAK-TC365DP-64F300W AA	SP001724126	TC365DP64F300WAAKXUMA1	PG-LQFP-176-22
SAK-TC367DP-64F300S AA	SP001694656	TC367DP64F300SAAKXUMA1	PG-LFBGA-292-11
SAK-TC367V0-64F300S AA	SP005411327	TC367V064F300SAAKXUMA1	PG-LFBGA-292-11
SAK-TC375TP-96F300W AA	SP001724106	TC375TP96F300WAAKXUMA1	PG-LQFP-176-22
SAK-TC377DP-96F300S AA	SP004987108	TC377DP96F300SAAKXUMA1	PG-LFBGA-292-11
SAK-TC377TP-96F300S AA	SP001694648	TC377TP96F300SAAKXUMA1	PG-LFBGA-292-11
SAK-TC377TX-96F300S AB	SP004950416	TC377TX96F300SABKXUMA1	PG-LFBGA-292-13
SAK-TC377VS-96F300S AA	SP005546304	TC377VS96F300SAAKXUMA1	PG-LFBGA-292-11
SAK-TC387QP-160F300S AD	SP002921224	TC387QP160F300SADKXUMA1	PG-LFBGA-292-11
SAK-TC387QP-160F300S AE	SP005351247	TC387QP160F300SAEKXUMA1	PG-LFBGA-292-11
SAK-TC387TP-128F300S AD	SP002921230	TC387TP128F300SADKXUMA1	PG-LFBGA-292-11
SAK-TC387TP-128F300S AE	SP005351248	TC387TP128F300SAEKXUMA1	PG-LFBGA-292-11
SAK-TC387TP-128F300S AE	SP005425390	TC387TP128F300SAEKXQMA1	PG-LFBGA-292-11
SAK-TC389QP-160F300S AD	SP002921222	TC389QP160F300SADKXUMA1	PG-FBGA-516-1
SAK-TC389QP-160F300S AE	SP005351252	TC389QP160F300SAEKXUMA1	PG-FBGA-516-1
SAK-TC397QA-160F300S BC	SP002739588	TC397QA160F300SBCKXUMA1	PG-LFBGA-292-12
SAK-TC397QA-160F300S BD	SP005351257	TC397QA160F300SBDKXUMA1	PG-LFBGA-292-12
SAK-TC397XA-256F300S BC	SP002739594	TC397XA256F300SBCKXUMA1	PG-LFBGA-292-12
SAK-TC397XA-256F300S BD	SP005351382	TC397XA256F300SBDKXUMA1	PG-LFBGA-292-12
SAK-TC397XP-256F300S BC	SP002739600	TC397XP256F300SBCKXUMA1	PG-LFBGA-292-10
SAK-TC397XP-256F300S BD	SP005351385	TC397XP256F300SBDKXUMA1	PG-LFBGA-292-10
SAK-TC397XP-256F300S BD	SP005433583	TC397XP256F300SBDKXQMA1	PG-LFBGA-292-10
SAK-TC397XX-256F300S BC	SP002725526	TC397XX256F300SBCKXUMA1	PG-LFBGA-292-10
SAK-TC397XX-256F300S BD	SP005351387	TC397XX256F300SBDKXUMA1	PG-LFBGA-292-10

Information note N° 10304AERRA

MC-ISAR_AURIX Release Notes Addendum V9.0 affecting products TC3xx

Sales name	SP number	OPN	Package
SAK-TC399XP-256F300S BC	SP002725524	TC399XP256F300SBCKXUMA1	PG-LFBGA-516-10
SAK-TC399XP-256F300S BD	SP005351394	TC399XP256F300SBDKXUMA1	PG-LFBGA-516-10
SAK-TC399XX-256F300S BC	SP002725518	TC399XX256F300SBCKXUMA1	PG-LFBGA-516-10
SAK-TC399XX-256F300S BD	SP005351395	TC399XX256F300SBDKXUMA1	PG-LFBGA-516-10
SAK-TC3E7QF-192F300S AA	SP005345769	TC3E7QF192F300SAAKXUMA1	PG-LFBGA-292-11
SAK-TC3E7QG-160F300S AA	SP005345771	TC3E7QG160F300SAAKXUMA1	PG-LFBGA-292-11
SAL-TC364DP-64F300F AA	SP001724134	TC364DP64F300FAALXUMA1	PG-TQFP-144-27
SAL-TC367DP-64F300S AA	SP001724120	TC367DP64F300SAALXUMA1	PG-LFBGA-292-11
SAL-TC375TI-96F300W AA	SP005428963	TC375TI96F300WAALXUMA1	PG-LQFP-176-22
SAL-TC375TI-96F300W AA	SP005572121	TC375TI96F300WAALXUMA2	PG-LQFP-176-22
SAL-TC375TP-96F300W AA	SP001724110	TC375TP96F300WAALXUMA1	PG-LQFP-176-22
SAL-TC377DP-96F300S AA	SP004987116	TC377DP96F300SAALXUMA1	PG-LFBGA-292-11
SAL-TC377TP-96F300S AA	SP001724092	TC377TP96F300SAALXUMA1	PG-LFBGA-292-11
SAL-TC387QP-160F300S AD	SP002921220	TC387QP160F300SADLXUMA1	PG-LFBGA-292-11
SAL-TC387QP-160F300S AE	SP005351250	TC387QP160F300SAELXUMA1	PG-LFBGA-292-11
SAL-TC387TP-128F300S AD	SP003021930	TC387TP128F300SADLXUMA1	PG-LFBGA-292-11
SAL-TC387TP-128F300S AE	SP005398494	TC387TP128F300SAELXUMA1	PG-LFBGA-292-11
SAL-TC389QP-160F300S AD	SP002921216	TC389QP160F300SADLXUMA1	PG-FBGA-516-1
SAL-TC389QP-160F300S AE	SP005351253	TC389QP160F300SAELXUMA1	PG-FBGA-516-1
SAL-TC397XP-256F300S BC	SP002725522	TC397XP256F300SBCLXUMA1	PG-LFBGA-292-10
SAL-TC397XP-256F300S BD	SP005351392	TC397XP256F300SBDLXUMA1	PG-LFBGA-292-10
SAL-TC399XP-256F300S BC	SP002725520	TC399XP256F300SBCLXUMA1	PG-LFBGA-516-10
SAL-TC399XP-256F300S BD	SP005351397	TC399XP256F300SBDLXUMA1	PG-LFBGA-516-10
SAL-TC399XX-256F300S BD	SP005351398	TC399XX256F300SBDLXUMA1	PG-LFBGA-516-10