Application Acceptance Test Report

Release Name:	SYS-E350-I3.1.1-P51.5

Project:	zFAS Series

Author:	Cedomir Jovanovic
Security:	Confidential
Document number:	-
Version:	3.50.0
Date:	2019-09-10
Status:	Released
SW-C:	CtApInnoDriveControl

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Revision Chart

Version	Date	Responsible Person	Description
3.50.0	2019-09-10	Cedomir Jovanovic	Automatic creation of the document

1. Application Acceptance Test Result

This chapter documents the overall test results of the performed Application Acceptance Test.

1.1 SW-C Overall Test Result & Integration Recommendation

SWC Name	Version	Integration Recommendation
CtApInnoDriveControl	SWC-X320-I3.1.1-P41.5_20180808134400-S7.1_20190715144405	**Failed, do not integrate**

Table 1 Application Acceptance Test Result & Integration Recommendation

🟩 **Passed, integrate all test cases were without errors or only priority C failures occurred**

🟥 **Failed, do not integrate at least one priority A failure occurred**

🟧 **Failed, but still integrate at least one priority B failure occurred**

⬜ **Not Executed**

1.2 Statistics

	Priority A		Priority B		Priority C		Total	
Overall number of test cases	6	100%	22	100%	7	100%	35	100%
Executed test cases	6	100%	21	95.5%	7	100%	34	97.1%
Not executed test cases	0	0%	1	4.5%	0	0%	1	2.9%
Passed test cases	5	83.3%	17	77.3%	5	71.4%	27	77.1%
Failed test cases	1	16.7%	4	18.2%	2	28.6%	7	20%

Table 2 Statistics

1.3 Test Case Results

TC ID	Test Case	Test Case Description	Priority	Executed at	Result[1]	Explanation/Comment	Bug References
1	SWC limits check	Reads and checks all limits from Architektursteckbriefe. It creates temporary file swc_limits.csv used by other processes	PRIO_B	2019-09-10 17:15 - 2019-09-10 17:18	Passed, integrate		No bug references.
2	Folder content check	Checks if delivered SWC contains all mandatory subfolders	PRIO_A	2019-09-10 17:15 - 2019-09-10 17:18	Passed, integrate		No bug references.
3	Release notes check	Check Release Notes document against the delivered SWC content	PRIO_B	2019-09-10 17:15 - 2019-09-10 17:18	2	There are undocumented files/folders in Document folder: [Architektursteckbrief_CtApInnoDriveControl.pdf]! There are undocumented files/folders in Test Vector folder: [RuntimeMin_ETC002, StackConsumptionMax_ETC004, StackMax_ETC003, StackMin_ETC004]!	No bug references.
4	Supplier's AITR check	Verifies and checks the supplier's AITR document against the delivered SWC content.	PRIO_B	2019-09-10 17:15 - 2019-09-10 17:18	2	There are undocumented files/folders in Document folder: [Architektursteckbrief_CtApInnoDriveControl.pdf]! There are undocumented files/folders in Test Vector folder: [RuntimeMin_ETC002, StackConsumptionMax_ETC004, StackMax_ETC003, StackMin_ETC004]!	No bug references.
5	Check 02_libs content (Libraries delivered)	Checks the existance of the libraries in 02_libs folder. At least one library should exist in this folder. Existance should be checked by expected file extension	PRIO_A	2019-09-10 17:15 - 2019-09-10 17:18	Passed, integrate		No bug references.
6	Check for mandatory MAP file	Checks if mandatory MAP file exists in 05_data subfolder. There must be exactly one MAP file	PRIO_B	2019-09-10 17:15 - 2019-09-10 17:18	Passed, integrate		No bug references.
7	Check for mandatory MISRA file	Checks if mandatory MISRA file exists in 05_data subfolder. There must be exactly one MISRA file	PRIO_B	2019-09-10 17:15 - 2019-09-10 17:18	Passed, integrate		No bug references.

TC ID	Test Case	Test Case Description	Priority	Executed at	Result[1]	Explanation/Comment	Bug References
8	Check for mandatory BUILD LOG files	Checks if one or more build log files are delivered in 05_data subfolder	PRIO_B	2019-09-10 17:15 - 2019-09-10 17:18	**Passed, integrate**		No bug references.
9	Check for mandatory test cases in the delivery	Checks if all mandatory test cases are delivered in 04_test subfolder	PRIO_B	2019-09-10 17:15 - 2019-09-10 17:18	**Passed, integrate**		No bug references.
10	Test Case naming convention check	Checks if all delivered Test cases (mandatory and additional) follows the naming convention	PRIO_B	2019-09-10 17:15 - 2019-09-10 17:18	**Passed, integrate**		No bug references.
11	Mandatory Test Case folder content check	Checks if every mandatory test case folder contains all mandatory files.	PRIO_B	2019-09-10 17:15 - 2019-09-10 17:18	**1**	Files missing from StackMax_ETC003 are 03_AllowedDeviation.csv, 04_InputTestVector, 05_ReferenceOutputVector	No bug references.
12	Additional Test Case folder content check	Checks if additional test case folder (if any) contains all mandatory files.	PRIO_C	2019-09-10 17:15 - 2019-09-10 17:18	**3**	Files missing from RuntimeMin_ETC002 are 03_AllowedDeviation.csv, 04_InputTestVector, 05_ReferenceOutputVector Files missing from StackConsumptionMax_ETC004 are 03_AllowedDeviation.csv, 04_InputTestVector, 05_ReferenceOutputVector Files missing from StackMin_ETC004 are 03_AllowedDeviation.csv, 04_InputTestVector, 05_ReferenceOutputVector	No bug references.
13	Heap allowed but not used	Checks if SWC is allowed to use Heap but heap is never been used.	PRIO_C	2019-09-10 17:15 - 2019-09-10 17:18	**Passed, integrate**		No bug references.

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TC ID	Test Case	Test Case Description	Priority	Executed at	Result[1]	Explanation/Comment	Bug References
14	Heap used but not allowed	Checks if SWC using the heap but it is not allowed to use.	PRIO_B	2019-09-10 17:15 - 2019-09-10 17:18	**Passed, integrate**		No bug references.
15	Host check	Check if SWC's host stated in Release Notes document is correct (the same as the one stated in Architecture Model)	PRIO_C	2019-09-10 17:15 - 2019-09-10 17:18	**Passed, integrate**		No bug references.
16	ASIL level check	Check if SWC's ASIL level stated in Release Notes documents is correct (the same as the one stated in Architecture Model)	PRIO_C	2019-09-10 17:15 - 2019-09-10 17:18	**Passed, integrate**		No bug references.
17	Supplier's AITR limits check	Checks the limits stated in supplier's AITR document against the limits in Architektursteckbriefe	PRIO_B	2019-09-10 17:15 - 2019-09-10 17:18	**1**	DiagConfigOff_ETC100[RInnoDriveControl] runtime limit 0.1 [Byte] found in Supplier's AITR file is less than expected limit from the Architecture	No bug references.
18	Mandatory test case result check	Checks the result of the mandatory test cases stated in supplier's AITR document	PRIO_B	2019-09-10 17:15 - 2019-09-10 17:18	**Passed, integrate**		No bug references.
19	Additional test case result check	Checks the result of the additional test cases stated in supplier's AITR document (if any)	PRIO_C	2019-09-10 17:15 - 2019-09-10 17:18	**Passed, integrate**		No bug references.
20	Interface check	Checks symbols used by delivered libraries against the allowed symbol set - white list (RTE symbols from Contract header and specific list of symbols from the Architecture Model)	PRIO_B	2019-09-10 17:16:00 - 2019-09-10 17:18	**Passed, integrate**	0 forbidden symbols found. See unagreed symbols in unagreed_symbols_ CtApInnoDriveControl.txt	No bug references.
21	RTE inteface usage check	Checks if all RTE inteface are used	PRIO_C	2019-09-10 17:16:00 - 2019-09-10 17:18	**72**	62.00% of RTE interfaces not used, 38.00% used. See unused RTE interfaces in unused_rte_CtApInnoDriveControl.txt See RTE symbols statistics table in used_categories_stats_ CtApInnoDriveControl.txt	No bug references.

TC ID	Test Case	Test Case Description	Priority	Executed at	Result[1]	Explanation/Comment	Bug References
						Maybe not all the RTE interfaces from the Model are needed to be used, see SW-C's Release Notes.	
22	Resource consumption check	Checks the resource consumption from the delivered MAP file against the limits in Architektursteckbriefe	PRIO_B		**Not Executed**	Since this is the APH component and delivered Release version is not the same as the current Release version, test cannot be executed.	
23	XML content check	Checks if Release Notes document and supplier's AITR document (xml format)are valid XML file by the xml standards and by the XML Schema.	PRIO_B	2019-09-10 17:16:00 - 2019-09-10 17:18	**Passed, integrate**		No bug references.
24	AIT version check	Checks if AIT version stated in delivered supplier's AITR exists in the list of allowed AIT versions by Preintegration environment (Architecture).	PRIO_B	2019-09-10 17:16:00 - 2019-09-10 17:18	**Passed, integrate**		No bug references.
25	Release version check	Checks if the Release label stated in delivered Release Notes exists in the lists of Acceptable Releases by Preintegration environment(Architecture).	PRIO_A	2019-09-10 17:16:00 - 2019-09-10 17:18	**1**	List of expected Release versions =['PIE-X351-I3.1.1-P51.5', 'PIE-X300-I3.0.1-P40.0', 'PIE-X301-I3.0.1-P40.1', 'SYS-Z300-I3.0.1-P40.1', 'PIE-X310-I3.0.1-P40.5', 'SYS-Z310-I3.0.1-P40.5', 'PIE-X315-I3.0.1-P41.0', 'SYS-Z315-I3.0.1-P41.0', 'PIE-X320-I3.1.1-P41.5', 'PIE-X321-I3.1.1-P42.0', 'PIE2-Y320-I3.1.1-P42.0', 'SYS-Z320-I3.1.1-P42.5', 'SYS-Z322-I3.1.1-P43.0', 'PIE-X330-I3.1.1-P43.0', 'SYS-Z330-I3.1.1-P43.5', 'PIE-X340-I3.1.1-P44.5', 'SYS-0340-I3.1.1-P44.5', 'PIE-X345-I3.1.1-P45.0', 'SYS-0345-I3.1.1-P45.0', 'PIE-X350-I3.1.1-P50.0', 'SYS-0350-I3.1.1-P50.0', 'PIE-X351-I3.1.1-P50.1', 'SYS-A350-I3.1.1-P50.1', 'PIE-X352-I3.1.1-P50.2', 'SYS-0352-I3.1.1-P50.2', 'PIE-X351-I3.1.1-P51.1', 'SYS-B350-I3.1.1-P51.1', 'PIE-X351-I3.1.1-P51.2', 'SYS-C350-I3.1.1-P51.2', 'PIE-X351-I3.1.1-P51.3', 'SYS-C351-I3.1.1-P51.3', 'PIE-X351-I3.1.1-P51.4', 'SYS-D350-I3.1.1-P50.4', 'SYS-D351-I3.1.1-P50.4', 'SYS-0353-I3.1.1-P50.2'] - Release version found in Release Notes: SYS-X320-I3.1.1-P41.5	No bug references.
26	Check allowed compiler flags	Reads BUILD LOG files and checks compiler and linker flags found there against the allowed ones stated in the Preintegration environment (Architecture).	PRIO_A	2019-09-10 17:16:00 - 2019-09-10 17:18	**Passed, integrate**		No bug references.

TC ID	Test Case	Test Case Description	Priority	Executed at	Result[1]	Explanation/Comment	Bug References
27	Compiler version check	Checks if Compiler version stated in delivered Release Notes is accepted by the Preintegration environment (Architecture).	PRIO_B	2019-09-10 17:16:00 - 2019-09-10 17:18	**Passed, integrate**		No bug references.
28	MISRA level check	Reads MISRA measurements from supplier's AITR file and checks if level is correct. If MISRA measurements not delivered within AITR file test fails.	PRIO_B	2019-09-10 17:16:00 - 2019-09-10 17:18	**Passed, integrate**		No bug references.
29	Is SWC buildable	Checks the result of Integrator's build process.	PRIO_A	2019-09-10 17:16:00 - 2019-09-10 17:18	**Passed, integrate**	Build successful.	No bug references.
30	Memory Mapping check	Checks if all symbols used in component are in correct memory section.	PRIO_B	2019-09-10 17:16:00 - 2019-09-10 17:18	**Passed, integrate**		No bug references.
31	Extended Version check	Compares SW-C version with the release label from the build process. Both data is given by supplier in Release Notes.	PRIO_C	2019-09-10 17:16:00 - 2019-09-10 17:18	**Passed, integrate**		No bug references.
32	Availability of dataset files check	The SWC delivery is checked. If it contains the .hex files in the RN (compares RN against the delivery)	PRIO_B	2019-09-10 17:16:00 - 2019-09-10 17:18	**Passed, integrate**		No bug references.
33	Dataset version check	Checks the version found in every hex file against the version stated in RN	PRIO_A	2019-09-10 17:16:00 - 2019-09-10 17:18	**Passed, integrate**		No bug references.
34	Dataset filesize check	Checks the size found in every hex file against the size projected by the Architecture Model.	PRIO_B	2019-09-10 17:16:00 - 2019-09-10 17:18	**Passed, integrate**		No bug references.
35	Check mandatory	Reads BUILD LOG files and checks compiler and linker flags found there	PRIO_B	2019-09-10 17:16:00 -	**Passed, integrate**		No bug references.

TC ID	Test Case	Test Case Description	Priority	Executed at	Result[1]	Explanation/Comment	Bug References
	compiler/linker flags	against the mandatory ones stated in the Preintegration environment (Architecture).		2019-09-10 17:18			
				Sum[2]	**7/34**		

Table 3 Test Case Results

[1]**If test case fails, number of errors are shown in this column**

[2]**Ratio of test cases: failed/executed**

🟩	**Passed**
🟥	**Failed**
⬜	**Not Executed**

2 Test Artefact Information

The following describes the artefacts which were tested at the integrator and delivered by the SW-C supplier during Application Acceptance Testing

2.1 Test Input Artefacts provided by the SWC-Supplier

Name	CtApInnoDriveControl
Version	SWC-X320-I3.1.1-P41.5_20180808134400-S7.1_20190715144405
ASIL Level	QM
Host	APH
Description	

Table 4 Tested SWC

Name	Version	Comment
libCtApInnoDriveControl_BDL.a		
libCtApInnoDriveControl_ Implementation.a		
libCtApInnoDriveControl_ ServerRunnables.a		

Table 5 Tested Release Content

2.2 Test Output Artefacts generated by the Integrator

Name	Version	Comment
AATR_TTTech_CtApInnoDriveControl.xml	2.0.2	automatic creation
used_symbols_CtApInnoDriveControl.txt		File containing all used symbols in swc libraries
AAT_release_notes20190910171546.log		File containing all information about checks in AAT process
used_rte_CtApInnoDriveControl.txt		File containing list of used RTE interfaces with its categories
used_categories_stats_ CtApInnoDriveControl.txt		File containing statistic table of used RTE symbols in swc libraries
unagreed_symbols_ CtApInnoDriveControl.txt		File containing all unagreed symbols in swc libraries
unused_rte_CtApInnoDriveControl.txt		File containing list of unused RTE interfaces with its categories

bad_memory_sections_ CtApInnoDriveControl.txt		File containing information about bad memory sections
white_CtApInnoDriveControl.dat		Whitelist file containing all allowed symbols specific to the SWC.

Table 6 Generated Test Artefacts

3 Test Environment Information

3.1 Test Management

PTC Integrity Baseline Label	-
PTC Integrity Test Session ID	3302346
PTC Integration Test Element	1165100

Table 7 Test Management Table

3.2 AAT Test Framework Information

Application Integration Test Environment has not been changed.

AAT Test Framework Version	C8_REL_REV176895
Change description	No changes
Effects of Change	No effects

Table 8 AAT Test Framework Information

3.3 Additional Software Tools

{NO DATA}

3.4 Test PC Software Image

{NO DATA}

Guidelines

Guidelines:
   * Unused RTE-Interfaces: Rte_Call_CtApInnoDriveControl_PpEventHandling_GetEventStatus
Rte_Call_CtApInnoDriveControl_PpPFServer_TS_ConvertAgt2Zgt
Rte_Call_CtApInnoDriveControl_PpPFServer_TS_ConvertZgt2Agt
Rte_Call_CtApInnoDriveControl_PpPFServer_TS_GetAgtTimestamp
Rte_Call_CtApInnoDriveControl_PpPFServer_TS_GetRemainingTimeBudget
Rte_Call_CtApInnoDriveControl_PpRGApiLight_RGApi_GetAttribute
Rte_Call_CtApInnoDriveControl_PpRGApiLight_RGApi_GetChildSegment
Rte_Call_CtApInnoDriveControl_PpRGApiLight_RGApi_GetChildrenCount
Rte_Call_CtApInnoDriveControl_PpRGApiLight_RGApi_GetCurrentTimestamp
Rte_Call_CtApInnoDriveControl_PpRGApiLight_RGApi_GetLoadAttributePool
Rte_Call_CtApInnoDriveControl_PpRGApiLight_RGApi_GetLoadSegments
Rte_Call_CtApInnoDriveControl_PpRGApiLight_RGApi_GetLoadSpeedLimitPool
Rte_Call_CtApInnoDriveControl_PpRGApiLight_RGApi_GetModuleVersion
Rte_Call_CtApInnoDriveControl_PpRGApiLight_RGApi_GetNearestAttributes
Rte_Call_CtApInnoDriveControl_PpRGApiLight_RGApi_GetNextAttribute
Rte_Call_CtApInnoDriveControl_PpRGApiLight_RGApi_GetNextSibling
Rte_Call_CtApInnoDriveControl_PpRGApiLight_RGApi_GetNextSpeedLimit
Rte_Call_CtApInnoDriveControl_PpRGApiLight_RGApi_GetSpeedLimit
Rte_Call_CtApInnoDriveControl_PpRGApiLight_RGApi_Query
Rte_IRead_RInnoDriveControl_PpDsInnoDriveDataSet_DeInnoDriveStrategyParameterSet
Rte_IRead_RInnoDriveControl_PpFRRGout_DePduGrp_SDF2_Pos_01
Rte_IRead_RInnoDriveControl_PpFRRGout_DeTraceData
Rte_IRead_RInnoDriveControl_PpPFHwMeasurements_DeTHS
Rte_IRead_RInnoDriveControl_PpPFHwMeasurements_DeVBAT_MAIN
Rte_IRead_RInnoDriveControl_PpPFProvidedData_DeCurConsecutiveSysRestartCnt
Rte_IRead_RInnoDriveControl_PpPFProvidedData_DeIFSETVersion
Rte_IRead_RInnoDriveControl_PpPFProvidedData_DeLCSAPHState
Rte_IRead_RInnoDriveControl_PpPFProvidedData_DeLCSMVHState
Rte_IRead_RInnoDriveControl_PpPFProvidedData_DeLCSSRHState
Rte_IRead_RInnoDriveControl_PpPFProvidedData_DeLCSSSHState
Rte_IRead_RInnoDriveControl_PpPFProvidedData_DeLCSSystemState
Rte_IRead_RInnoDriveControl_PpPFProvidedData_DeTotalSysRestartCnt
Rte_IRead_RInnoDriveControl_PpPFProvidedData_DeVARHWVariant
Rte_IRead_RInnoDriveControl_PpRGExtPSD_DeRGExtPSD
Rte_IRead_RInnoDriveControl_PpRGLVZE_DeBVTS
Rte_IRead_RInnoDriveControl_PpRGLVZE_DePduGrp_BVTS_xx
Rte_IRead_RInnoDriveControl_PpRGLVZE_DePduGrp_VZE_01
Rte_IRead_RInnoDriveControl_PpRGLVZE_DePduGrp_VZE_02
Rte_IRead_RInnoDriveControl_PpRGLVZE_DePduGrp_VZE_03
Rte_IRead_RInnoDriveControl_PpRGLVZE_DePduGrp_VZE_05
Rte_IRead_RInnoDriveControl_PpRGLVZE_DeTraceData
Rte_IStatus_RInnoDriveControl_PpDsInnoDriveDataSet_DeInnoDriveStrategyParameterSet
Rte_IStatus_RInnoDriveControl_PpFRRGout_DePduGrp_SDF2_Pos_01
Rte_IStatus_RInnoDriveControl_PpFRRGout_DeTraceData
Rte_IStatus_RInnoDriveControl_PpPFHwMeasurements_DeTHS
Rte_IStatus_RInnoDriveControl_PpPFHwMeasurements_DeVBAT_MAIN
Rte_IStatus_RInnoDriveControl_PpPFProvidedData_DeCurConsecutiveSysRestartCnt

Rte_IStatus_RInnoDriveControl_PpPFProvidedData_DeIFSETVersion
Rte_IStatus_RInnoDriveControl_PpPFProvidedData_DeLCSAPHState
Rte_IStatus_RInnoDriveControl_PpPFProvidedData_DeLCSMVHState
Rte_IStatus_RInnoDriveControl_PpPFProvidedData_DeLCSSRHState
Rte_IStatus_RInnoDriveControl_PpPFProvidedData_DeLCSSSHState
Rte_IStatus_RInnoDriveControl_PpPFProvidedData_DeLCSSystemState
Rte_IStatus_RInnoDriveControl_PpPFProvidedData_DeTotalSysRestartCnt
Rte_IStatus_RInnoDriveControl_PpPFProvidedData_DeVARHWVariant
Rte_IStatus_RInnoDriveControl_PpRGExtPSD_DeRGExtPSD
Rte_IStatus_RInnoDriveControl_PpRGLVZE_DeBVTS
Rte_IStatus_RInnoDriveControl_PpRGLVZE_DePduGrp_BVTS_xx
Rte_IStatus_RInnoDriveControl_PpRGLVZE_DePduGrp_VZE_01
Rte_IStatus_RInnoDriveControl_PpRGLVZE_DePduGrp_VZE_02
Rte_IStatus_RInnoDriveControl_PpRGLVZE_DePduGrp_VZE_03
Rte_IStatus_RInnoDriveControl_PpRGLVZE_DePduGrp_VZE_05
Rte_IStatus_RInnoDriveControl_PpRGLVZE_DeTraceData
Rte_IsUpdated_CtApInnoDriveControl_PpDiagCoding_DeCoding
Rte_IsUpdated_CtApInnoDriveControl_PpDiagCoding_DePermitCodingPersistence
Rte_IsUpdated_CtApInnoDriveControl_PpDiagGlobalRead_DeDeactivate_hardware_in_the_loop_mode_0x0BEA
Rte_IsUpdated_CtApInnoDriveControl_PpDiagGlobalRead_DePlatform_zFAS_hil_mode_0x0500
Rte_IsUpdated_CtApInnoDriveControl_PpDiagGlobalRead_DeRoller_Test_Stand_Mode_0x04FB
Rte_Read_CtApInnoDriveControl_PpDiagCoding_DePermitCodingPersistence
Rte_Read_CtApInnoDriveControl_PpDiagGlobalRead_DeDeactivate_hardware_in_the_loop_mode_0x0BEA
Rte_Read_CtApInnoDriveControl_PpDiagGlobalRead_DeRoller_Test_Stand_Mode_0x04FB
Rte_Receive_CtApInnoDriveControl_PpDiagGlobalRead_DeFSPCleared