Application Acceptance Test Report

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

Project: zFAS Series

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SW-C:	CtApInnoDriveStrategy

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Revision Chart

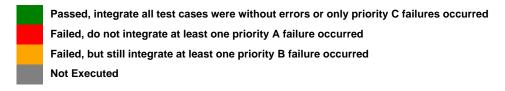| Version	Date	Responsible Person	Description
3.50.0	2019-09-10	Cedomir Jovanovic	Automatic creation of the document

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
CtApInnoDriveStrategy	SWC-X320-I3.1.1-P41.5_20180808134400-S7.1_20190715160730	**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	5	83.3%	19	86.4%	7	100%	31	88.6%
Not executed test cases	1	16.7%	3	13.6%	0	0%	4	11.4%
Passed test cases	4	66.7%	13	59.1%	5	71.4%	22	62.9%
Failed test cases	1	16.7%	6	27.3%	2	28.6%	9	25.7%

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_CtApInnoDriveStrategy.pdf]! There are undocumented files/folders in Test Vector folder: [RuntimeMin_ETC002, 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_CtApInnoDriveStrategy.pdf]! There are undocumented files/folders in Test Vector folder: [RuntimeMin_ETC002, 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	**2**	Files missing from RuntimeMin_ETC002 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.
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.

TC ID	Test Case	Test Case Description	Priority	Executed at	Result[1]	Explanation/Comment	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	**5**	static test ram limit 2097152.0 [Byte] found in Supplier's AITR file is greater than expected limit from the Architecture static test rom limit 2097152.0 [Byte] found in Supplier's AITR file is greater than expected limit from the Architecture DiagConfigOff_ETC100[RInnoDriveStrategy] runtime limit 4.0 [Byte] found in Supplier's AITR file is greater than expected limit from the Architecture StackConsumptionMax_ETC003[RInnoDriveStrategy] runtime limit 4.0 [Byte] found in Supplier's AITR file is greater than expected limit from the Architecture RuntimeMax_ETC001[RInnoDriveStrategy] runtime limit 4.0 [Byte] found in Supplier's AITR file is greater 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	PRIO_B	2019-09-10 17:16:00 -	**Passed, integrate**	0 forbidden symbols found. See unagreed symbols in unagreed_symbols_ CtApInnoDriveStrategy.txt	No bug references.

TC ID	Test Case	Test Case Description	Priority	Executed at	Result[1]	Explanation/Comment	Bug References
		Contract header and specific list of symbols from the Architecture Model)		2019-09-10 17:18			
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	**38**	75.00% of RTE interfaces not used, 25.00% used. See unused RTE interfaces in unused_rte_CtApInnoDriveStrategy.txt See RTE symbols statistics table in used_categories_stats_ CtApInnoDriveStrategy.txt Maybe not all the RTE interfaces from the Model are needed to be used, see SW-C's Release Notes.	No bug references.
22	Resource consumption check	Checks the resource consumption from the delivered MAP file against the limits in Architektursteckbriefe	PRIO_B	2019-09-10 17:16:00 - 2019-09-10 17:18	**Passed, integrate**		No bug references.
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.

TC ID	Test Case	Test Case Description	Priority	Executed at	Result[1]	Explanation/Comment	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.
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	**1**	Versions are not equal! Expected 4.8.1.5 - Found 4.8.1.6	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		**Not Executed**	This test is executed for APH components only.	
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		**Not Executed**		
33	Dataset version check	Checks the version found in every hex file against the version stated in RN	PRIO_A		**Not Executed**		
34	Dataset filesize check	Checks the size found in every hex file against the size projected by the Architecture Model.	PRIO_B		**Not Executed**		

TC ID	Test Case	Test Case Description	Priority	Executed at	Result[1]	Explanation/Comment	Bug References
35	Check mandatory compiler/linker flags	Reads BUILD LOG files and checks compiler and linker flags found there against the mandatory ones stated in the Preintegration environment (Architecture).	PRIO_B	2019-09-10 17:16:00 - 2019-09-10 17:18	2	List of not used mandatory compiler flags: -pedantic-errors, -c List of not used mandatory linker flags: -pedantic-errors	No bug references.
				Sum[2]	9/31		

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	CtApInnoDriveStrategy
Version	SWC-X320-I3.1.1-P41.5_20180808134400-S7.1_20190715160730
ASIL Level	QM
Host	SSH
Description	

Table 4 Tested SWC

Name	Version	Comment
libCtApInnoDriveStrategy_BDL.a		
libCtApInnoDriveStrategy_ Implementation.a		
libCtApInnoDriveStrategy_ ServerRunnables.a		

Table 5 Tested Release Content

2.2 Test Output Artefacts generated by the Integrator

Name	Version	Comment
AATR_TTTech_ CtApInnoDriveStrategy.xml	2.0.2	automatic creation
AAT_release_notes20190910171546.log		File containing all information about checks in AAT process
used_rte_CtApInnoDriveStrategy.txt		File containing list of used RTE interfaces with its categories
used_symbols_CtApInnoDriveStrategy.txt		File containing all used symbols in swc libraries
unused_rte_CtApInnoDriveStrategy.txt		File containing list of unused RTE interfaces with its categories
used_categories_stats_ CtApInnoDriveStrategy.txt		File containing statistic table of used RTE symbols in swc libraries
unagreed_symbols_ CtApInnoDriveStrategy.txt		File containing all unagreed symbols in swc libraries

white_CtApInnoDriveStrategy.dat		Whitelist file containting 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	1165092

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_CtApInnoDriveStrategy_PpEventHandling_GetEventStatus
Rte_Call_CtApInnoDriveStrategy_PpPFServer_TS_ConvertAgt2Zgt
Rte_Call_CtApInnoDriveStrategy_PpPFServer_TS_ConvertZgt2Agt
Rte_Call_CtApInnoDriveStrategy_PpPFServer_TS_GetAgtTimestamp
Rte_Call_CtApInnoDriveStrategy_PpPFServer_TS_GetRemainingTimeBudget
Rte_IRead_RInnoDriveStrategy_PpDsInnoDriveDataSet_DeInnoDriveCtrlParameterSetCtrl
Rte_IRead_RInnoDriveStrategy_PpPFHwMeasurements_DeTHS
Rte_IRead_RInnoDriveStrategy_PpPFHwMeasurements_DeVBAT_MAIN
Rte_IRead_RInnoDriveStrategy_PpPFProvidedData_DeCurConsecutiveSysRestartCnt
Rte_IRead_RInnoDriveStrategy_PpPFProvidedData_DeIFSETVersion
Rte_IRead_RInnoDriveStrategy_PpPFProvidedData_DeLCSAPHState
Rte_IRead_RInnoDriveStrategy_PpPFProvidedData_DeLCSMVHState
Rte_IRead_RInnoDriveStrategy_PpPFProvidedData_DeLCSSRHState
Rte_IRead_RInnoDriveStrategy_PpPFProvidedData_DeLCSSSHState
Rte_IRead_RInnoDriveStrategy_PpPFProvidedData_DeLCSSystemState
Rte_IRead_RInnoDriveStrategy_PpPFProvidedData_DeTotalSysRestartCnt
Rte_IRead_RInnoDriveStrategy_PpPFProvidedData_DeVARHWVariant
Rte_IStatus_RInnoDriveStrategy_PpDsInnoDriveDataSet_DeInnoDriveCtrlParameterSetCtrl
Rte_IStatus_RInnoDriveStrategy_PpPFHwMeasurements_DeTHS
Rte_IStatus_RInnoDriveStrategy_PpPFHwMeasurements_DeVBAT_MAIN
Rte_IStatus_RInnoDriveStrategy_PpPFProvidedData_DeCurConsecutiveSysRestartCnt
Rte_IStatus_RInnoDriveStrategy_PpPFProvidedData_DeIFSETVersion
Rte_IStatus_RInnoDriveStrategy_PpPFProvidedData_DeLCSAPHState
Rte_IStatus_RInnoDriveStrategy_PpPFProvidedData_DeLCSMVHState
Rte_IStatus_RInnoDriveStrategy_PpPFProvidedData_DeLCSSRHState
Rte_IStatus_RInnoDriveStrategy_PpPFProvidedData_DeLCSSSHState
Rte_IStatus_RInnoDriveStrategy_PpPFProvidedData_DeLCSSystemState
Rte_IStatus_RInnoDriveStrategy_PpPFProvidedData_DeTotalSysRestartCnt
Rte_IStatus_RInnoDriveStrategy_PpPFProvidedData_DeVARHWVariant
Rte_IsUpdated_CtApInnoDriveStrategy_PpDiagCoding_DeCoding
Rte_IsUpdated_CtApInnoDriveStrategy_PpDiagCoding_DePermitCodingPersistence
Rte_IsUpdated_CtApInnoDriveStrategy_PpDiagGlobalRead_DeDeactivate_hardware_in_the_loop_mode_0x0BEA
Rte_IsUpdated_CtApInnoDriveStrategy_PpDiagGlobalRead_DePlatform_zFAS_hil_mode_0x0500
Rte_IsUpdated_CtApInnoDriveStrategy_PpDiagGlobalRead_DeRoller_Test_Stand_Mode_0x04FB
Rte_Read_CtApInnoDriveStrategy_PpDiagCoding_DePermitCodingPersistence
Rte_Read_CtApInnoDriveStrategy_PpDiagGlobalRead_DeDeactivate_hardware_in_the_loop_mode_0x0BEA
Rte_Read_CtApInnoDriveStrategy_PpDiagGlobalRead_DeRoller_Test_Stand_Mode_0x04FB
Rte_Receive_CtApInnoDriveStrategy_PpDiagGlobalRead_DeFSPCleared