Application Acceptance Test Report

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

Project:	zFAS Series

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Security:	Confidential
Document number:	-
Version:	3.50.0
Date:	2019-09-10
Status:	Released
SW-C:	CtApObjectFusion

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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
CtApObjectFusion	SWC-D350-I3.1.1-P51.4_20190729090944-S30.2_20190826160107	**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%	6	85.7%	33	94.3%
Not executed test cases	0	0%	1	4.5%	1	14.3%	2	5.7%
Passed test cases	5	83.3%	19	86.4%	4	57.1%	28	80%
Failed test cases	1	16.7%	2	9.1%	2	28.6%	5	14.3%

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 Architectursteckbriefe. 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	**Passed, integrate**		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	**Passed, integrate**		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.
8	Check for mandatory	Checks if one or more build log files are delivered in 05_data subfolder	PRIO_B	2019-09-10 17:15 -	**Passed, integrate**		No bug references.

TC ID	Test Case	Test Case Description	Priority	Executed at	Result[1]	Explanation/Comment	Bug References
	BUILD LOG files			2019-09-10 17:18			
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	**Passed, integrate**		No bug references.
12	Additional Test Case folder content check	Checks if additional test case folder (if any) contains all mandatory files.	PRIO_C		**Not Executed**	No additional Test Directory found. Test case cannot be executed.	
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	**1**	Heap limits non zero, but no heap function ever called!	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.
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.

TC ID	Test Case	Test Case Description	Priority	Executed at	Result[1]	Explanation/Comment	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	**Passed, integrate**		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 17:17:00 - 2019-09-10 17:18	**1**	1 forbidden symbols found. See unagreed symbols in unagreed_symbols_CtApObjectFusion.txt VXE file used!	No bug references.
21	RTE inteface usage check	Checks if all RTE inteface are used	PRIO_C	2019-09-10 17:17:00 - 2019-09-10 17:18	**43**	55.00% of RTE interfaces not used, 45.00% used. See unused RTE interfaces in unused_rte_CtApObjectFusion.txt See RTE symbols statistics table in used_categories_stats_ CtApObjectFusion.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 17:17:00 - 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	PRIO_B	2019-09-10 17:17:00 -	**Passed, integrate**		No bug references.

TC ID	Test Case	Test Case Description	Priority	Executed at	Result[1]	Explanation/Comment	Bug References
		format)are valid XML file by the xml standards and by the XML Schema.		2019-09-10 17:18	Passed, integrate		
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 17:17:00 - 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 17:17:00 - 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-D350-I3.1.1-P51.4	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 17:17:00 - 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 17:17:00 - 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 17:17:00 - 2019-09-10 17:18	**1**	RequiredLevel is different than zero: 452	No bug references.

TC ID	Test Case	Test Case Description	Priority	Executed at	Result[1]	Explanation/Comment	Bug References
29	Is SWC buildable	Checks the result of Integrator's build process.	PRIO_A	2019-09-10 17:17:00 - 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 17:17:00 - 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 17:17:00 - 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 17:17:00 - 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 17:17:00 - 2019-09-10 17:18	**Passed, integrate**		No 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 17:17:00 - 2019-09-10 17:18	**Passed, integrate**		No bug references.
				Sum[2]	**5/33**		

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	CtApObjectFusion
Version	SWC-D350-I3.1.1-P51.4_20190729090944-S30.2_20190826160107
ASIL Level	B
Host	SSH
Description	

Table 4 Tested SWC

Name	Version	Comment
libAudiFusionBase.a		
libCtApObjectFusion_BDL.a		
libCtApObjectFusion_Implementation.a		
libCtApObjectFusion_Runnables.a		
libCtApObjectFusion_ServerRunnables.a		
libDiagnosisServer.a		
libObjectFusion.a		
libObjectFusionzFasAdapters.a		
libVxWorksAL.a		

Table 5 Tested Release Content

2.2 Test Output Artefacts generated by the Integrator

Name	Version	Comment
AATR_TTTech_CtApObjectFusion.xml	2.0.2	automatic creation
unagreed_symbols_CtApObjectFusion.txt		File containing all unagreed symbols in swc libraries
used_symbols_CtApObjectFusion.txt		File containing all used symbols in swc libraries
AAT_release_notes20190910171546.log		File containing all information about checks in AAT process

used_categories_stats_ CtApObjectFusion.txt		File containing statistic table of used RTE symbols in swc libraries
unused_rte_CtApObjectFusion.txt		File containing list of unused RTE interfaces with its categories
used_rte_CtApObjectFusion.txt		File containing list of used RTE interfaces with its categories
white_CtApObjectFusion.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	735412

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:
    * integrated FuSi version is FuSi_OF_54.0.0

==
Die verwendeten Compiler- und Linker-Optionen sind in den Builder-Plugins im angegebenen PIE enthalten.
==
=== Important note for replaying test vectors ==
Test vectors should be played twice. Measurements have to be done on the second run of each test vector. The reason is related to the codings. Since codings are only read once in ObjectFusion during initialization, they have to be already available at startup. The first run saves the codings persistent to the target. Hence, in the second run they are available. This affects the following test cases: AITR Test Case ID: ETC001 "RuntimeMax_ETC001", AITR Test Case ID: ETC003 "StackConsumptionMax_ETC003", AITR Test Case ID: ITC005 "Overall signal coverage check", AITR Test Case ID: ITC006 "Safety signal coverage check"
==
=== AITR Test Case ID: ITC005 "Overall signal coverage check" ==============================
All signals of the following ports are not covered by the test vectors. They have to be put on the whitelist: PpDiagGlobalRead, reason: There is no usage in ObjectFusion. PpOBFObjTVIP, reason: The is no requirement to process TopView data in Cluster2.
==
=== AITR Test Case ID: ITC006 "Safety signal coverage check" ==============================
All signals of the following ports are not covered by the test vectors. They have to be put on the whitelist: PpOBFOutObjectsACFObs, reason: AcfObserver is not a costumer function in Cluster2. PpObjectListPreCrash, reason: PreCrash is not a costumer function in Cluster2. PpObjectListParking, reason: Parking is not a costumer function in Cluster2. The following signals are not covered by the test vectors. They have to be put on the whitelist: DeEML___DeWheelCorrFactorRR, reason: There is no usage in ObjectFusion. DeEML___DeWheelCorrFactorRL, reason: There is no usage in ObjectFusion. DeEML___DeWheelCorrFactorFLConf, reason: There is no usage in ObjectFusion. DeEML___DeWheelCorrFactorRLConf, reason: There is no usage in ObjectFusion. DeEML___DeWheelCorrFactorFRConf, reason: There is no usage in ObjectFusion. DeEML___DeWheelCorrFactorFL, reason: There is no usage in ObjectFusion. DeEML___DeCurvatureConf, reason: There is no usage in ObjectFusion. DeEML___DeWheelCorrFactorFR, reason: There is no usage in ObjectFusion. DeEML___DeWCFEEstimatorStatusConf, reason: There is no usage in ObjectFusion. DeEML___DeYawAngleConf, reason: There is no usage in ObjectFusion. DeEML___DeUBoundResidualVelXConf, reason: There is no usage in ObjectFusion. DeEML___DeWheelCorrFactorRRConf, reason: There is no usage in ObjectFusion.
==
=== AATR Test Case ID: 21 "RTE inteface usage check" =================================
The following interfaces are not required by ObjectFusion. They have to be put on the whitelist: Rte_Call_CtApObjectFusion_PpPFServer_TS_ConvertAgt2Zgt
Rte_Call_CtApObjectFusion_PpPFServer_TS_ConvertZgt2Agt
Rte_Call_CtApObjectFusion_PpPFServer_TS_GetAgtTimestamp
Rte_IRead_ROBFmain_PpCalibFailMV_DeFailsafeMV
Rte_IRead_ROBFmain_PpCalibFailMV_DeMXBCalibrationStatusMV
Rte_IRead_ROBFmain_PpDsUltraSonicProcessingDataSet_DeUlsmFenceCfg
Rte_IRead_ROBFmain_PpPFHwMeasurements_DeTHS
Rte_IRead_ROBFmain_PpPFHwMeasurements_DeVBAT_MAIN
Rte_IRead_ROBFmain_PpPFProvidedData_DeCurConsecutiveSysRestartCnt
Rte_IRead_ROBFmain_PpPFProvidedData_DeIFSETVersion

Rte_IRead_ROBFmain_PpPFProvidedData_DeLCSAPHState
Rte_IRead_ROBFmain_PpPFProvidedData_DeLCSMVHState
Rte_IRead_ROBFmain_PpPFProvidedData_DeLCSSRHState
Rte_IRead_ROBFmain_PpPFProvidedData_DeLCSSSHState
Rte_IRead_ROBFmain_PpPFProvidedData_DeLCSSystemState
Rte_IRead_ROBFmain_PpPFProvidedData_DeTotalSysRestartCnt
Rte_IRead_ROBFmain_PpPFProvidedData_DeVARHWVariant
Rte_IStatus_ROBFmain_PpCalibFailMV_DeFailsafeMV
Rte_IStatus_ROBFmain_PpCalibFailMV_DeMXBCalibrationStatusMV
Rte_IStatus_ROBFmain_PpDsUltraSonicProcessingDataSet_DeUlsmFenceCfg
Rte_IStatus_ROBFmain_PpPFHwMeasurements_DeTHS
Rte_IStatus_ROBFmain_PpPFHwMeasurements_DeVBAT_MAIN
Rte_IStatus_ROBFmain_PpPFProvidedData_DeCurConsecutiveSysRestartCnt
Rte_IStatus_ROBFmain_PpPFProvidedData_DeIFSETVersion
Rte_IStatus_ROBFmain_PpPFProvidedData_DeLCSAPHState
Rte_IStatus_ROBFmain_PpPFProvidedData_DeLCSMVHState
Rte_IStatus_ROBFmain_PpPFProvidedData_DeLCSSRHState
Rte_IStatus_ROBFmain_PpPFProvidedData_DeLCSSSHState
Rte_IStatus_ROBFmain_PpPFProvidedData_DeLCSSystemState
Rte_IStatus_ROBFmain_PpPFProvidedData_DeTotalSysRestartCnt
Rte_IStatus_ROBFmain_PpPFProvidedData_DeVARHWVariant
Rte_IsUpdated_CtApObjectFusion_PpDiagGlobalRead_DeDeactivate_hardware_in_the_loop_mode_0x0BEA
Rte_IsUpdated_CtApObjectFusion_PpDiagGlobalRead_DePlatform_zFAS_hil_mode_0x0500
Rte_IsUpdated_CtApObjectFusion_PpDiagGlobalRead_DeRoller_Test_Stand_Mode_0x04FB
Rte_IsUpdated_CtApObjectFusion_PpDiagObjectFusionRead_DeDeactivate_hardware_in_the_loop_mode_0x0BEA
Rte_IsUpdated_CtApObjectFusion_PpDiagObjectFusionRead_DePlatform_zFAS_hil_mode_0x0500
Rte_IsUpdated_CtApObjectFusion_PpDiagObjectFusionRead_DeRoller_Test_Stand_Mode_0x04FB
Rte_Read_CtApObjectFusion_PpDiagGlobalRead_DeDeactivate_hardware_in_the_loop_mode_0x0BEA
Rte_Read_CtApObjectFusion_PpDiagGlobalRead_DePlatform_zFAS_hil_mode_0x0500
Rte_Read_CtApObjectFusion_PpDiagGlobalRead_DeRoller_Test_Stand_Mode_0x04FB
Rte_Read_CtApObjectFusion_PpDiagObjectFusionRead_DeDeactivate_hardware_in_the_loop_mode_0x0BEA
Rte_Read_CtApObjectFusion_PpDiagObjectFusionRead_DePlatform_zFAS_hil_mode_0x0500
Rte_Read_CtApObjectFusion_PpDiagObjectFusionRead_DeRoller_Test_Stand_Mode_0x04FB
Rte_Receive_CtApObjectFusion_PpDiagGlobalRead_DeFSPCleared