

Application Acceptance Test Report

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

Project: zFAS Series

| | |
|-------------------------|-----------------------|
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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 |
|-----------------------|---|------------------------------------|
| CtApObjectFusionLight | SWC-X320-I3.1.1-P41.5_20180808134400-S15.0_20180821130259 | Failed, but still 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% | 20 | 90.9% | 6 | 85.7% | 31 | 88.6% |
| Not executed test cases | 1 | 16.7% | 2 | 9.1% | 1 | 14.3% | 4 | 11.4% |
| Passed test cases | 5 | 83.3% | 19 | 86.4% | 5 | 71.4% | 29 | 82.9% |
| Failed test cases | 0 | 0% | 1 | 4.5% | 1 | 14.3% | 2 | 5.7% |

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 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 existence of the libraries in 02_libs folder. At least one library should exist in this folder. Existence 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 | 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. |
| 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 | Passed, integrate | 0 forbidden symbols found. See unagreed symbols in unagreed_symbols_CtApObjectFusionLight.txt | No bug references. |
| 21 | RTE interface usage check | Checks if all RTE interface are used | PRIO_C | 2019-09-10 17:17:00 - 2019-09-10 17:18 | 78 | 78.00% of RTE interfaces not used, 22.00% used. See unused RTE interfaces in unused_rte_CtApObjectFusionLight.txt See RTE symbols statistics table in used_categories_stats_CtApObjectFusionLight.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 | | 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 | 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 | | | |
| 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 | Passed, integrate | | 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 | Passed, integrate | | No 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 | 2019-09-10 17:17:00 - 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 |
|-------|---------------------------------------|--|----------|--|---------------------|--|--------------------|
| 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 | 1 | No dataset files in Audi/Default subfolder. | No bug references. |
| 33 | Dataset version check | Checks the version found in every hex file against the version stated in RN | PRIO_A | | Not Executed | No dataset files in Audi/Default subfolder. Test cannot be 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 | No dataset files in Audi/Default subfolder. Test cannot be executed. | |
| 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 | 2/31 | | |

Table 3 Test Case Results

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

²Ratio 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 | CtApObjectFusionLight |
| Version | SWC-X320-I3.1.1-P41.5_20180808134400-S15.0_20180821130259 |
| ASIL Level | QM |
| Host | APH |
| Description | |

Table 4 Tested SWC

| Name | Version | Comment |
|--|---------|---------|
| libCtApObjectFusionLight_BDL_1.0.0.a | | |
| libCtApObjectFusionLight_Implementation_1.0.0.a | | |
| libCtApObjectFusionLight_ServerRunnables_1.0.0.a | | |
| libPALib_1.0.0.a | | |

Table 5 Tested Release Content

2.2 Test Output Artefacts generated by the Integrator

| Name | Version | Comment |
|---|---------|--|
| AATR_TTTech_CtApObjectFusionLight.xml | 2.0.2 | automatic creation |
| used_rte_CtApObjectFusionLight.txt | | File containing list of used RTE interfaces with its categories |
| AAT_release_notes20190910171546.log | | File containing all information about checks in AAT process |
| bad_memory_sections_CtApObjectFusionLight.txt | | File containing information about bad memory sections |
| used_symbols_CtApObjectFusionLight.txt | | File containing all used symbols in swc libraries |
| used_categories_stats_CtApObjectFusionLight.txt | | File containing statistic table of used RTE symbols in swc libraries |

| | | |
|--|--|--|
| unused_rte_CtApObjectFusionLight.txt | | File containing list of unused RTE interfaces with its categories |
| unagreed_symbols_CtApObjectFusionLight.txt | | File containing all unagreed symbols in swc libraries |
| white_CtApObjectFusionLight.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 | 785341 |

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:

* Ab Release Z220 kann ueber den Datensatz des Roadgraph Light (CtApRoadGraphLight), konkret CtApRoadGraph_PiDsRoadGraphDataSet_DeRoadgraphRGData.hex, zwischen Routing von WLA- und Objektfusions-Objekten umgeschaltet werden. Der Standardfall, dessen Datensatz zu dieser Lieferung an TTTech geliefert wird, ist dabei das Routing von WLA-Objekten. Beide Datensaeetze werden als hex-Dateien im Exchange-Ordner im zFAS-SVN eingecheckt.