

# Application Acceptance Test Report

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

Project: zFAS Series

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|                         |                   |
|-------------------------|-------------------|
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| <b>SW-C:</b>            | CtCdEDRPIDriving  |

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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  |
|------------------|---|-----------------------------|
| CtCdEDRPIDriving | SWC-0350-I3.1.1-P50.0_20190313230239-S12.4_20190515113650 | 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          | 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            | 6          | 100% | 18         | 81.8% | 6          | 85.7% | 30    | 85.7% |
| Failed test cases            | 0          | 0%   | 3          | 13.6% | 1          | 14.3% | 4     | 11.4% |

Table 2 Statistics

## 1.3 Test Case Results

| TC ID | Test Case                                   | Test Case Description   | Priority | Executed at                         | Result <sup>1</sup> | 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 17:19 | 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 17:19 | 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 17:19 | 1                   | There are undocumented files/folders in Data folder: [20181228104950.SSH.CtCdEDRPIDriving_build.log, 20190515104734.SSH.CtCdEDRPIDriving_build.log, edrpctool-12.0.0-RELEASE.jar, edrpctool-12.1.0-RELEASE.jar]! | 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 17:19 | 1                   | There are undocumented files/folders in Data folder: [20181228104950.SSH.CtCdEDRPIDriving_build.log, 20190515104734.SSH.CtCdEDRPIDriving_build.log, edrpctool-12.0.0-RELEASE.jar, edrpctool-12.1.0-RELEASE.jar]! | 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 17:19 | 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 17:19 | 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 17:19 | 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 <sup>1</sup> | Explanation/Comment | Bug References     |
|-------|--|--|----------|-------------------------------------|---------------------|---------------------|--------------------|
|       | BUILD LOG files                                |  |          | 2019-09-10 17:19                    |                     |                     |                    |
| 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 17:19 | 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 17:19 | 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 17:19 | 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   | 2019-09-10 17:15 - 2019-09-10 17:19 | Passed, integrate   |                     | 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 17:19 | 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 17:19 | 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 17:19 | Passed, integrate   |                     | No bug references. |

| TC ID | Test Case                         | Test Case Description  | Priority | Executed at                            | Result <sup>1</sup> | 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 17:19    | 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 17:19    | 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 17:19    | 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 17:19    | 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 17:19 | Passed, integrate   | 0 forbidden symbols found.<br>See unagreed symbols in unagreed_symbols_CtCdEDRPiDriving.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 17:19 | 222                 | 70.00% of RTE interfaces not used, 30.00% used.<br><br>See unused RTE interfaces in unused_rte_CtCdEDRPiDriving.txt<br>See RTE symbols statistics table in used_categories_stats_CtCdEDRPiDriving.txt<br>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 17:19 | 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 <sup>1</sup> | Explanation/Comment                            | Bug References     |
|-------|------------------------------|--|----------|--|---------------------|--|--------------------|
|       |                              | format)are valid XML file by the xml standards and by the XML Schema.  |          | 2019-09-10 17:19                       |                     |  |                    |
| 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 17:19 | 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 17:19 | 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 17:19 | 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 17:19 | 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 17:19 | 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 17:19 | 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.   | PRIO_C   | 2019-09-10 17:17:00 -                  | Passed, integrate   |  | No bug references. |



| TC ID | Test Case                             | Test Case Description  | Priority | Executed at                            | Result <sup>1</sup> | Explanation/Comment  | Bug References     |
|-------|---------------------------------------|--|----------|--|---------------------|--|--------------------|
|       |                                       | Both data is given by supplier in Release Notes.   |          | 2019-09-10 17:19                       |                     |  |                    |
| 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 17:19 | 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 17:19 | 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 17:19 | 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 17:19 | 2                   | List of not used mandatory compiler flags: -pedantic-errors, -c<br>List of not used mandatory linker flags: -pedantic-errors | No bug references. |
|       |                                       |  |          | Sum <sup>2</sup>                       | 4/34                |  |                    |

Table 3 Test Case Results

<sup>1</sup>If test case fails, number of errors are shown in this column

<sup>2</sup>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

|                    |   |
|--------------------|---|
| <b>Name</b>        | CtCdEDRPiDriving  |
| <b>Version</b>     | SWC-0350-I3.1.1-P50.0_20190313230239-S12.4_20190515113650 |
| <b>ASIL Level</b>  | QM  |
| <b>Host</b>        | SSH   |
| <b>Description</b> |   |

Table 4 Tested SWC

| Name                                  | Version | Comment |
|---------------------------------------|---------|---------|
| libCtCdEDRPiDriving_BDL.a             |         |         |
| libCtCdEDRPiDriving_Implementation.a  |         |         |
| libCtCdEDRPiDriving_ServerRunnables.a |         |         |

Table 5 Tested Release Content

### 2.2 Test Output Artefacts generated by the Integrator

| Name                                       | Version | Comment  |
|--|---------|--|
| AATR_TTTech_CtCdEDRPiDriving.xml           | 2.0.2   | automatic creation   |
| unused_rte_CtCdEDRPiDriving.txt            |         | File containing list of unused RTE interfaces with its categories    |
| used_categories_stats_CtCdEDRPiDriving.txt |         | File containing statistic table of used RTE symbols in swc libraries |
| used_rte_CtCdEDRPiDriving.txt              |         | File containing list of used RTE interfaces with its categories      |
| AAT_release_notes20190910171546.log        |         | File containing all information about checks in AAT process          |
| unagreed_symbols_CtCdEDRPiDriving.txt      |         | File containing all unagreed symbols in swc libraries                |
| used_symbols_CtCdEDRPiDriving.txt          |         | File containing all used symbols in swc libraries                    |
| white_CtCdEDRPiDriving.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  | 785335  |

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:

- \* The EDR data files are stored on SSH NAND flash in the root filesystem of partition /mmc0:1 and can be read out via FTP (see document "SDE-SSH") and the "DAF readout" feature to SDCard/USB Stick on the MIB
- \* There EDR PC Tool is located in the "05\_data" directory. Please note the readme file "edrpctool-readme.txt".
- \* The following persistent files - each with its specific filename - are handled by the EDR Piloted Driving SWC:
  - \* 1. <TriggerID>\_EDR\_{PP|TJP|SVC}<TriggerName>[\_WP].dat - Signal data files - deleted/written in case of a trigger
  - \* 2. edr\_pidriving.log - Log file (text file) - read at startup; written when last activity state if last activity state of a function is set; written at end of clamp15 cycle
  - \* 4. edr\_pidriving.dsc and edr\_pidriving.dsc.bck - Ringbuffer descriptor file: This file saves metadata about the ringbuffer state (slot usage, write protection etc.) - .dsc read at startup; both files written in case of any trigger
  - \* 5. edr\_pidriving.cnt and edr\_pidriving.cnt.bck - Counter file (text file) - stores the DE counter, KL15 counter and other counters; stores the log of activation/deactivation of parking pilot and traffic jam pilot - .cnt read at startup; both files written at end of clamp15 cycle
  - \* 6. <TriggerID>\_EDR\_{PP|TJP|SVC}<TriggerName>[\_WP].incomplete - Temporary file signalling that NVRAM storage of the corresponding .dat file is not yet complete - written and deleted in case of a trigger
  - \* 7. edr\_pidriving\_act\_pp.txt, edr\_pidriving\_act\_pp.txt.bck, edr\_pidriving\_act\_pp.crc, edr\_pidriving\_act\_tjp.txt, edr\_pidriving\_act\_tjp.txt.bck, edr\_pidriving\_act\_tjp.crc, edr\_pidriving\_act\_kd.txt, edr\_pidriving\_act\_kd.txt.bck, edr\_pidriving\_act\_kd.crc- Store the log of activation/deactivation of functions - .txt files read at startup; all files written at end of clamp15 cycle
  - \* File size of .dat files for 40 seconds recording duration: PP: 907.606 bytes | TJP: 3.560.855 bytes | Service mode: 30.803.530 bytes
- \* The following DTCs are implemented but set to FAILED only if EDR is activated: 1. Functional NVM access error, 0x040001; 2. EDR data memory full, 0x040003; 3. DAF Test mode active, 0x040004; 4. Unplausible dataset CtCdEDRPiDriving, 0x040005; 5. EDR storage Life expectancy reached, 0x040006
- \* The following RoutineControls are implemented: 1. EDR Loeschen von Dateien, 0x05F8; 2. EDR Dateien Schreibschutz aendern, 0x1013; 3. EDR Messwerte aktualisieren, 0x1017; 4. EDR PiloFa Trigger, 0x1018
- \* The following Anpassknaele are implemented: 1. EDR Testmodus aktiv, 0x0BE4; 2. EDR Testmodus deaktivieren, 0x0BE5
- \* The following Messwerte (measurement values) are implemented: 0x170A and 0x173C
- \* Release V12.4.0: \* Fixed KPMs: - 7775926 [EDR] Converted Mib PMD Readout data stored in wrong dir - 7775889 [EDR] Converted Mib APH recorder data stored in SSH dir - 7812958 [EDR] Log entries missing in general logfile Release V12.3.0: \* Fixed KPMs: - 7662802 [EDR] K-matrix init/error interpretation Release V12.2.0: \* Fixed KPMs: - 7662798 [DAF] Fall-back for longitude gps location degree - 7662799 [DAF] No mixture gps location values - 7662802 [EDR] K-matrix init/error interpretation - 7662801 [EDR] Double fallback Gps location Release V12.1.0: \* Fixed KPMs: - 7537080 [EDR] ND.UTC internally evaluated as signedInt32 \* CRs: - [ZFAS-1926] TJP-failure storage within DAF \* Updated PC Tool version to V12.1.0 Release V12.0.0: \* Updated SIL libraries to new IF-SET V3.1.1. \* SWC updated with new IF-SET V3.1.1. \* Added fallback to MM coordinates. \* Data set version updated to 12.0. Change log V11.4.0 vs. V11.3.0: Added general log msg for KL-30 reset (EDR KL-30 reset detected in KL-15 cycle: ) \* Fixed KPMs: - no KMPs were found Change log V11.3.0 vs. V11.2.0: \* Fixed KPMs: 7406922 Fixed [EDR] Async data handling nvram and counter 7500518 Fixed [EDR] May not send PP-CamTrigger in degraded state Change log V11.2.0 vs. V11.1.0: \* Fixed KPMs:

7484275 Fixed [EDR] Power supply trigger wrong ignored message 7406922 Fixed [EDR] Async data handling nvm and counter Change log V11.1.0 vs. V11.0.0: - Reworked log messages for DTCs and InhiBit - Delpha\_State signal source updated from PpParkControl2EDR to PpParkMAStatus \*Fixed KPMs 7445100 Fixed [EDR] Inhibit-bit true not logged in general log 7316765 Fixed [EDR] IF-Set naming not fulfilled by EDR-PC-Tool Change log V11.0.0 vs. V10.0.0 \*Fixed KPMs 7432792 Fixed [EDR] General trigger should not fire continuously 7316765 Fixed [EDR] IF-Set naming not fulfilled by EDR-PC-Tool 7432773 Fixed [EDR] Dat file storage not mapped correctly 7432807 Fixed [EDR] Wrong crc in some Parken signal files Change log V10.0.0 vs. V9.1.0: \* adapted to new ifset (no impact on EDR) - no new signals to record or remove from recording \* Dataset change: - Introduced parameter for blind spot handling \* Fixed KPMs: 7406579 Fixed [EDR] automatic gen. logfile deletion init/error 7366658 Fixed [EDR] SupplyFault Trigger de-bounce no information 7406922 Fixed [EDR] Async data handling nvm and counter (as agreed in telco with Audi if last active state was PP or TJP read from persistancy cnt is incremented by 1) 7406254 Fixed [EDR] Automatic dat file deletion not working 7328246 Not EDR [STP][EDR]: Interface to STP Porterror InhibitBit Change log V9.1.0 vs. V9.0.0: \* Dataset change: - Introduced parameter for CR1530 separated DE and NDE delays defined in dataset \* Fixed KPMs: 7380700 Fixed [EDR] Deact. logging delay additional file storage 7406579 Partly [EDR] automatic gen. logfile deletion init/error (01.01.2017 sanity check is still open) 7406922 Partly [EDR] Async data handling nvm and counter (Missing persistent counter file storage on KL30-off. Not defined in requirements) 7406254 Partly [EDR] Automatic dat file deletion not working (01.01.2017 sanity check is still open) Change log V8.6.0 vs. V8.5.0: \* Fixed KPMs: - 7370535 [EDR] Wrong PDU state mapped to EDR State - 7366741 [EDR] missing PDU status signals in Parken profile - 7366619 [EDR] degradation mode trigger storage - 7366658 [EDR] SupplyFault Trigger de-bounce no information - 7366709 [EDR] Lower priority fctn activation not stored - 7364458 [EDR] automatic deletion logfile entries - 7364512 [EDR] WriteProtection Toggling trigger cascade - 7341710 [EDR] multiple escalation level entries occur \* CRs: - 127001 [EDR][SSH][CR1530] Add trigger delay for DE and NDE events \* Issues: - 127530 [EDR][SSH][CR1278] Fix GPS precision to six digits after decimal point \* Dataset change: - Introduced parameter for CR1530 Change log V8.5.0 vs. V8.4.0: \* Fixed KPMs: - 7243868 [EDR] ODIS readout 0x173C important info cut-off - 7315474 [EDR] Parken\_aktives\_System condition dependency - 7320468 [EDR] MWB 0x173C contains wrong funct act entries - 7341710 [EDR] multiple escalation level entries occur \* CRs: - 126422 [EDR][SSH][CR1278] Change of "Escalation level logging" feature - log esc. level for any STP\_Status value change \* Issues: - 126431 [EDR][SSH] Fix wrong PP signal recording source - 126614 [EDR][SSH] Startup data - do not print zero values Change log V8.4.0 vs. V8.3.0: \* Fixed KPMs: - 7243868 [EDR] ODIS readout 0x173C important info cut-off - 7315474 [EDR] Parken\_aktives\_System condition dependency - 7320468 [EDR] MWB 0x173C contains wrong funct act entries - 7323857 [EDR] GPS entries unclear, reset entries manipulated - 7341776 [EDR] Intensive logging caused by DE counter = 1 \* CRs: - 122133 [EDR][SSH][CR1278] Deployment Event has to store the full recording buffer duration (up to 60s) - 122140 [EDR][SSH][CR1278] Information that can be used to track down the driver must not be stored in general log file \* Issues: - 124712 [EDR][SSH] Fix MISRA violations - 125017 [EDR][SSH] Provide measurements for SYS-0280+ / finish optimisation - 123394 [EDR][SSH] Rework 3 cycles high - 3 cycles low implementation when relaying trigger to TVM on SRH - 125346 [EDR][SSH] dat file / act-deact deletion: Wait indefinitely until GPS time becomes available - 125353 [EDR][SSH] KD ringbuffer violation with incomplete files Change log V8.3.0 vs. V8.2.0: \* Fixed KPMs: - 6921163 [EDR]: Edr\_pidriving.log file data not plausible - 7223643 [EDR]PiloFa no trigger after inactive function - 7285567 [EDR] fctn. deactivations have wrong timestamps - 7296528 [EDR] SWC version differs in MWB 173C - 7296631 [EDR] HW variant information missing general Log - 7296708 [EDR] Diag TJP activation stored in fctn logfile \* CRs: - 122143 [EDR][SSH][CR1278] Act/Deact log entries have to be deleted 6 months after creation - 122169 [EDR][SSH][CR1278] .dat files have to be deleted 3 years after creation - 122171 [EDR][SSH][CR1278] If one (or more) escalation levels of function STP are reached an act/deac log entry shall be written \* Issues: - 124259 [EDR][SSH] Parameters p\_n\_PP\_activated\_EDR, p\_n\_TJP\_activated\_EDR, p\_n\_testmode\_activated\_EDR not used in code - 124477 [EDR][SSH] Interpret 3Hz signal shift correctly in PDF and ATDF exports - 123707 [EDR][SSH] Optimize EDR runtime to meet 400us budget (peaks) - 124832 [EDR][SSH] Message "NVRAM

not available for 5s - DTC 40001 set to failed" is printed to UART (and log file?) every 5s Change log V8.2.0 vs. V8.1.0: \* Fixed KPMs: - 7189155 [EDR] Wrong timestamps in gen./activation logfiles (added KL 15 counter) - 7296502 [EDR] Activation condition Parken\_aktives\_System \* CRs: - 122170 [EDR][SSH][CR1278] All act/deact log entries have to contain 'real GPS location' - 115468 [EDR][SSH][CR1278] New requirements for signal status byte INVALID and INAVAILABLE - 122137 [EDR][SSH][CR1278] Triggers in delay structure are not allowed to be deleted - 122136 [EDR][SSH][CR1278] STP after-activity-off-recording has priority over a potential activation of PP function \* Issues: - 114577 [EDR][SSH] Optimization: Read only data from RTE that is needed for the specific function - 122293 [EDR][SSH] p\_t\_consecutive\_triggers only applies for PP (not for STP) - 122175 [EDR][SSH] Set EDR DTCs only if EDR is active - 123297 [EDR][SSH] EDR shall not access NVM at all if NVM is not available Change log V8.1.0 vs. V8.0.0: \* Fixed KPMs: - 7273186 [EDR] critical persistency state never left - 7273184 [EDR] wrong assignments in function activation log \* Issues: - 123029 [EDR][SSH] EDR shall not access NVM in PER\_BUSY when NVM is unavailable -122575 [EDR][SSH] When readdir is used filename size must be checked -122578 [EDR][SSH] Fix copy/paste error "T\_EDR\_NvmWriteTask" logging -122667 [EDR][SSH] If 0x173C returns data even without mmc access put active/deactive info into MWB data -123030 [EDR][SSH] Separate SWC version from File format version -122574 [EDR][SSH] When logging out EDR coding bit also log out EDR\_Rte\_Data.Diag\_Coding\_EDR\_TPL\_Image\_Data -122576 [EDR][SSH] Log entering and leaving the init runnable on UART and edrpidriving.log -122577 [EDR][SSH] All UART logging directly in the init runnable shall be done with ERROR level -122665 [EDR][SSH] Log out active/deactive log lines with ERROR level Change log V8.0.0 vs. V7.6.3b: \* Fixed KPMs: - 7212357 [EDR] DAF data handling incorrect (NVM slots full) - 7221717 [EDR] FIFO logic of dat file storage has deficit - 7220940 [EDR] misleading port naming DeManeuver - 7223643 [EDRPiloFa] no trigger after inactive function - 7225974 [EDR] monotonic trigger id overflow - 7235685 [EDR] Toggling WP leads to wrong dtc validation - 7238921 [EDR] DE counter independent of activation - 7242774 [EDR] ODIS 'erase all dat files' not implemented - 7243868 [EDR] ODIS readout 0x173C important info cut-off \* CRs: - [EDR][SSH][CR1121] PP active/inactive handling shall be changed (DeParkenAktiv alone not sufficient) \* Issues: - [EDR][SSH] Add logging to UART and log file that answer to EthCom is sent -[EDR][SSH] Inhibit bit is only allowed to go LOW if NVRAM is available - [EDR-S] Set DTCs only if EDR is active - [EDR-S] Move setting inhibit bit to the beginning of the main runnable - [EDR-S] Adapt to new IFSET as soon as X270 is available - [EDR][SSH] When readdir is used filename size must be checked - [EDR][SSH] Change EDR\_NVM\_DTC\_DELAY to 5s Change log V7.6.3b vs. V7.6.3: \* Fixed KPMs: - 7147531 [EDR] Storage slot limitation SSH can be bypassed - 7208781 [EDR] general logfile startup section deviation - 7212317 [EDR] DataSet with version 0.0 tested plausible - 7212357 [EDR] DAF data handling incorrect (NVM slots full) \* Fixed production issue: - [EDR] DTC 40003 has to be set to PASSED or FAILED correctly Change log V7.6.3 vs. V7.6.2: \* Removed 3 outdated TJP signals from recording: - deEA\_Sollbeschleunigung: Also reported via KPM 7193701: outdated: removed from recording. - deSTP\_Primaeranz: outdated: removed from recording. - deEPB\_Status\_02: outdated: removed from recording. \* Removed 3 FR PDU status bytes for PP profile: - deStatus\_LRR1SensorHeader02 - deStatus\_LS1SensorHeader - deStatus\_SWA01 \* Fixed recording of the following FR PDU status bytes for TJP: - ACC07, BRBU02, ESP15, ESP28, ESP33, Getriebe11, HAL01, LHEPS01, LHEPS02, LHEPS03, LHEPS04, LRR1WZO, Motor35, STP01, TCIKG01, TCIKG02, TCIPS Change log V7.6.2 vs. V7.6.1e: \* Fixed KPM "[EDR] wrong sampling freq. for some TJP signals" (7201330) Change log V7.6.1e vs. V7.6.1d: \* Changed back INIT/IDLE signal from 0x02 to 0xFF \* Fixed KPM "[EDR] signals in \*.dat-File w/ status 'UNUSED\_2'" (7184958) Change log V7.6.1d vs. V7.6.1c: \* Fixed MIB readout communication to EthCom -> changing back INIT/IDLE signal from 0xFF to 0x02 Change log V7.6.1c vs. V7.6.1b: \* "-1U" removed from memset statement of saving logfile Change log V7.6.1b vs. V7.6.1a: \* Fixed signal 11 in shutdown during NM stress tests Change log V7.6.1a vs. V7.6.1: \* KPM 7189155 \* KPM 7187207 Change log V7.6.1 vs. V7.6: \* Signals Dt\_RECORD\_ParkGatewayHMImaneuver::DeCurrentManeuver::DeType, ::DeStep, ::DeDirection and ::DeSide are recorded now correctly from struct Dt\_RECORD\_ParkGatewayHMImaneuver::DeCurrentManeuver, not from Dt\_RECORD\_ParkGatewayHMImaneuver. In the internal recording structure EDR names the signals



"DeManeuverType", "DeManeuverStep", "DeManeuverDirection", "DeManeuverSide". \* 7Hz signals are recorded now with oversampling rate of 8.33Hz instead of 6.25Hz \* Status bit "NULL\_PTR" is now only written if EDR receives value NULL from RTE call \* Solved: [issue117431] EDR background task runtime resets with Error ID 95 / FATAL/RTP Change log V7.6 vs. V7.5: \* Fixed watchdog violation when executing routine control refresh MWB \* Fixed MWB readout \* EDR shall store information about DAF readout in its logfile (changed idle signal to 0xFF from 0x02) \* Prevent deleting meta-files on EDR version change \* Reconstruct NVRAM Descriptor from files on mmc0:1 in case it is broken or corrupted \* KPM: [EDR] Read MWB via ODIS fails because of SSH files \* KPM: [EDR] 2 consec triggers do not lead to 2 dat Files \* Fixing MISRA/HIS violations

\* Future release plan: \* ZFAS-1926 - [CR] [ZFAS-1926] TJP-failure storage within DAF implementation planned for next CL3 release. -

\* PC Tool 11.2.3 supports 11.1.0, 11.2.0, 11.0.0, 10.0.0, 9.0.0, 8.1.0, 8.0.0, 7.6.3, 7.6.2, 7.6.1, 7.6.0, 7.5.0, 7.4.0, 7.3.0, 7.2.0, 7.1.0, 7.0.0, 6.3.0, 6.2.0, 4.0.2, 4.1.0, 5.0.1, 5.2.0, 6.0.0, 6.2.0, 6.3.0 file version format. List of supported file versions can be found within supportedFileFormatVersions.txt file which is generated after application is started in the same folder as the JAR file.

\* Storing times of .dat files with 40s recording time [ms]: PP: 519 | STP: 1919 | Service mode: 21360 --- Attention: Storing times can vary due to background load on the system.

\* PC Tool command line usage: "java -cp <edrPcTool.jar> -Xmx1024m com.tttech.edrpctool.EdrPiLoFaPcTool <inputfile.dat/cnt> <mode> [testVectors.bin]" | 1 - generate txt file | 2 - generate pdf file | 3 - generate adtf file; if this option is used, an additional argument shall be provided i.e. 0 - "per basic type" 1 - "per struct" | 4- compare with bin test vectors; if this option is used, additional argument shall be provided i.e. absolute path to the bin file

\* EDR is active if (DAF\_Coding\_Bit == 1 AND p\_t\_rec\_duration\_EDR > 0 AND p\_n\_OEM\_activated\_EDR == TRUE), else inactive; if EDR is active behaviour is the same as inactive except: 1) DTCs are set to FAILED if condition is fulfilled 2) Recording to RAM is started if activity is on 3) Storage to NVRAM is started if a trigger occurs in a valid condition

\* Open EDR KPMs: \* KPM-7537080 - [EDR] ND\_UTC internally evaluated as signedInt32

\* Number of compiler warnings: 1

\* Execution time of init runnable measured using ZGT timestamps: 65 4104285 40-1:38:48|EDR: Delnhibit changed to: FALSE. => 4104ms (var. D)

\* TTTech SVN Revision EDR is built of: 274744

\* Compatible dataset versions: \* Version 12.0 and above

\* File format version written by this SWC: 12.1.0