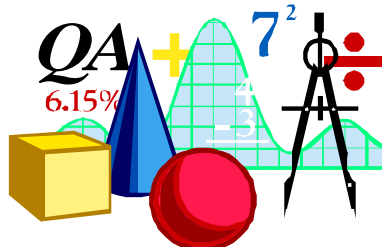


TEST PLAN PROCEDURE



Kaye Validator AVS Software

Version 1.2.3

Test Plan

PROCEDURE

Control No. EDN 524

Revision: A

AUTHOR

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KAYE

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1.0 Purpose

The Test Plan defines the overall product test strategy for the Kaye Validator Advance Validation System (AVS) version 1.2.3

2.0 Scope

The following table is a summary of the major defect fixes being tested. More specific detail and traceability can be seen in the **EDN 524 -A Appendix to Kaye Validator AVS 1.2.3 Test Plan Rev A**. The full detail can be found in the test cases. This table establishes traceability from spec to test case.

- SPEC: Specification refers to the Software Requirements Document
- SECTION: defines the section of the specification
- REQUIREMENT: summary of the test requirement
- TEST CASE: QA Test Case where the validation testing is documented
- TESTER: Group responsible for conducting the test

SRD	SECTION	REQUIREMENT	TEST CASE	TEST CASE SECTION	TESTER
SRD039 Rev D	4.1	Defect# 2165 - Map drive file operations (Sync IN/Out/Archive/Upload Doc, File Convert) are not working with mapped drives or network path.	EDN 521	5.3.1	QA
SRD039 Rev D	4.2	Defect# 2288 - Password expiration not working on users imported by Synchronization.	EDN 521	5.3.2	QA
SRD039 Rev D	4.3	Defect# 2297 - Upgrade installation of new build gets rid of old version's User list/Asset/Setups/Qual/Cal details in the new build launch.	EDN 521	5.3.3	QA
SRD039 Rev D	4.4	Defect# 2299 – Developer license (Unable to upgrade AVS SW build 1.0 (1.2.0.25/28) version to build 1.2 (1.2.0.21) throwing an error message in between.	EDN 521	5.3.4	QA
SRD039 Rev D	4.5	Defect# 2290 - Discrepancy in total Alethality value in Summary and Detailed report when Lethality is defined based on temp conditions.	EDN 521	5.3.5	QA
SRD039 Rev D	4.5	Defect 2325 - Garbage data and undefined relay events are displayed in Reports for Qual study when Exposure Stop condition is set to Exp Time and Qual start, Exp Start and Qual	EDN 525	5.3.6	QA
SRD039 Rev D	4.5	Defect 2352 - Garbage data is displayed in Reports for Qual study when sensor type is configured as TC (0.1).	EDN 525	5.3.7	QA
SRD039 Rev D	4.5	Defect 2327 - Discrepancy in total ALethality value in Summary and Detailed report when Lethality is defined to exposure cycle and Exp Start/End when configured as Cycle	EDN 525	5.3.8	QA
SRD039 Rev D	4.5	Defect 2328 - Discrepancy in total ALethality value in Summary and Detailed report when Lethality is defined to Entire cycle and Exp Start/End when configured as Cycle Time	EDN 525	5.3.9	QA

SRD039 Rev D	4.5	Defect 2329 - Discrepancy in total ALethality value in Summary and Detailed report when Lethality is defined to During Entire cycle and Exp Start/End	EDN 525	5.3.10	QA
SRD039 Rev D	4.5	Defect 2331 - Discrepancy in total ALethality value in Summary and Detailed report when Lethality is defined to Entire Cycle in the below defined setup.	EDN 525	5.3.11	QA
SRD039 Rev D	4.5	Defect 2332 - Discrepancy in total ALethality value in Summary and Detailed report when Lethality is defined to Exposure Cycle in the below defined setup.	EDN 525	5.3.12	QA
SRD039 Rev D	4.5	Defect 2333 - Discrepancy in total ALeth value in Summary and Detailed report when Lethality is defined to Exposure Cycle in the below defined setup.	EDN 525	5.3.13	QA
SRD039 Rev D	4.5	Defect 2334 - Discrepancy in total ALeth value in Summary and Detailed report when Lethality is defined to Entire Cycle in the below defined setup.	EDN 525	5.3.14	QA
SRD039 Rev D	4.5	Defect 2335 - Discrepancy in total ALethality value in Summary and Detailed report when Lethality is defined to During Exposure Cycle and Exp Start/End when configured as Manual and Qual Start/Stop configured to manual.	EDN 525	5.3.15	QA
SRD039 Rev D	4.5	Defect 2336 - Discrepancy in total ALethality value in Summary and Detailed report when Lethality is defined to During Entire Cycle and Exp Start/End when configured as Min Temp Condition and Qual Start/Stop configured to Temp Condition.	EDN 525	5.3.16	QA
SRD039 Rev D	4.5	Defect 2337 - Discrepancy in total ALethality value in Summary and Detailed report when Lethality is defined to During Exposure Cycle and Exp Start/End when configured as Min Temp Condition and Qual Start/Stop configured to Temp Condition.	EDN 525	5.3.17	QA
SRD039 Rev D	4.5	Defect 2338 - Discrepancy in total ALethality value in Summary and Detailed report when Lethality is defined to Exposure Cycle in the below defined setup.	EDN 525	5.3.18	QA
SRD039 Rev D	4.5	Defect 2339 - Discrepancy in total ALethality value in Summary and Detailed report when Lethality is defined to During Exposure Cycle and Exp Start as Manual and Expo End configured as Exp Time and Qual Start as Manual and Qual Stop configured to Cycle time.	EDN 525	5.3.19	QA
SRD039 Rev D	4.5	Defect 2340 - Discrepancy in total ALethality value in Summary and Detailed report when Lethality is defined to During Entire Cycle and Exp Start as Manual and Expo End configured as Exp Time and	EDN 525	5.3.20	QA

		Qual Start as Manual and Qual Stop configured to Cycle time.			
SRD039 Rev D	4.5	Defect 2341 - Discrepancy in total ALeth value in Summary and Detailed report when Lethality is defined to Entire Cycle in the below defined setup.	EDN 525	5.3.21	QA
SRD039 Rev D	4.5	Defect 2342 - Discrepancy in total ALethality value in Summary and Detailed report when Lethality is defined to During Entire Cycle and Exp Start as Cycle Time and Expo End configured as Exp Time and Qual Start as Manual and Qual Stop configured to Cycle time.	EDN 525	5.3.22	QA
SRD039 Rev D	4.5	Defect 2343 - Discrepancy in total ALeth value in Summary and Detailed report when Lethality is defined to Entire Cycle in the below defined setup.	EDN 525	5.3.23	QA
SRD039 Rev D	4.5	Defect 2344 - Discrepancy in total ALeth value in Summary and Detailed report when Lethality is defined to Exposure Cycle in the below defined setup.	EDN 525	5.3.24	QA
SRD039 Rev D	4.5	Defect 2345 - Discrepancy in total ALethality value in Summary and Detailed report when Lethality is defined to During Exposure Cycle and Exp Start as Cycle Time and Expo End configured as Exp Time and Qual Start as Manual and Qual Stop configured to Cycle time.	EDN 525	5.3.25	QA

Note: "Test Case Section" column from 5.3.6 to 5.3.25 of EDN 524 comes under section 4.5 of SRD039 Rev D. These defects are sub-defects of defect 2290.

3.0 Organizational Responsibilities

The Quality Assurance organization functions independently from the Engineering organization, which is responsible for product development. QA responsibilities for system test are:

- Develop Test Plan and Test Cases to test each requirement set forth in the Functional Specification or Software Requirements Document or Product Requirements Document.
- Provide traceability between each requirement in the specification to the Test Case.
- Conduct system test in accordance to the Test Cases.
- Provide documented test results where applicable and save supporting documentation (bitmaps, files, reports, etc.) on the Quality network drive or as an attachment in HP-ALM bug tracking system.
- Log defects and verify fixes have been implemented to resolve each defect and save supporting documentation (bitmaps, files, reports, etc.) in HP-ALM bug tracking system
- Document all product problems and supply Engineering with specific data, then test and verify the fixes.
- Track all product problems to closure.
- Conduct Regression Testing.
- Issue QA Product Certificate upon completion of testing.

The Engineering organization includes Hardware, Software, Mechanical, and Configuration Management. Engineering responsibilities for system test are:

- Develop and document product Functional Specification and Software Requirements Document or Product Requirements Document.
- Review and approve the QA Test Plan
- Turnover of integrated system to QA.
- Transfer of system knowledge to QA.
- Unique identification and version control of the system under test.
- Identification of system changes during the system turnover.
- Response to reported problems and participation in problem resolution meetings.
- Sign-off on the QA Test Cases including final test results.

4.0 System Test

The functionality of the product under test is exercised through the execution of the Test Cases. Each product function tested has a written explanation as well as place for the test conductor to document actual result, reference a test result document, or indicate a pass / fail result. A Summary of all the testing is listed on **EDN 524-A Appendix to Kaye Validator AVS 1.2.3 Test Plan Rev A.xls**. The test detail is defined in the Test Cases listed below:

EDN 524-A	Appendix to Kaye Validator AVS 1.2.3 Test Plan Rev A.xls
EDN 525	Kaye Validator AVS 1.2.3 Rev. A Upgrade Test Case Rev. A

The test conductor will:

- Record all information required by the Test Case
- Record and save results (where applicable) of system test on the Quality network drive.
- Report any problems found with the system under test. Attach supporting documentation (screenshots, reports, etc.) where applicable and possible to the HP-ALM tracking system and to the Quality network drive.
- Retest fixed problems and record the results of the testing.

5.0 Problem Reporting

Any indicated failures can be referenced to the defect database. The defect record contains all information pertaining to the failure. The failure indication on the test case will only be changed if the criterion is passed during the next test. The QA defect database will save all information on the defect and its fix.

6.0 Acceptance

For all data analysis activities, a description of the methods and processes employed to arrive at the pass/fail decision must be fully documented. Where applicable, accepted Amphenol Advance Sensors or External certifying body performance standards and definitions should be referenced. Where lack of a clear standard, definition or method exists then the methodology employed must be negotiated with and approved by the test case approvers prior to case closure.

Quality department gives a recommendation at the conclusion of all testing functions. QA may at this time recommend for product release, releasing the product under the test to manufacturing.

QA may also recommend that the product not to be released and that rework and retesting be done. If the QA recommendation and meeting consensus disagree, the matter is elevated to the Product Manager.

7.0 Records

QA is responsible, if possible, for collecting documentation that supports product testing. This documentation may be in the form of reports, printouts, files, or any other type of media and saved in the HPQC tracking system and/or Quality network drive.

At the conclusion of the system test, the original signed off test cases will be stored in a fire-proof cabinet. All test data will be stored on the shared network, and will be traceable to the test case. Documentation must be stored either on site or off site for a period of at least five years after the life of the product.

8.0 Revision Level

Rev	Comment	Date
0	Initial Draft Release Version	05-June-2017
1	Updated Defect Fixes	07-June -2017
A	Initial Release	08-June-2017

Official changes to this procedure will result in reissue of the document with appropriate notation in the Revision Level space above.

This document is *Company Confidential* and unauthorized distribution is prohibited.

Test Plan Approved by:

Date: 08-June -2017

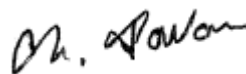
QA:



Ralf Wottrich

Date: 08-June -2017

Engineering:



Pavan Chundi

Date: 08-June -2017

Project Manager:



Raghvendra Pratap Singh

Date: 08-June -2017

Marketing:



Dennis Plante