SOLAR ORBITER RPW ROC

RSS3VC Test Report

ROC-TST-VAL-RPT-00083-LES

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Acronym List

Acronym	Definition

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1 General

1.1 Scope of the document

This document is the test report of the ROC Software System release 3 Validation Campaign (RSS3VC). It contains the results of tests, which were executed during the validation campaign.

1.2 Applicable Documents

Tab. 1.1: Applicable documents

Mark	Reference/Iss/Rev	Title of the document	Authors	Date
AD1	ROC-GEN-SYS-PLN-00040-LES/2/1	ROC Verification and Validation Plan (RVVP)	Sonny Lion	DD/MM/YYYY
AD2	ROC-GEN-SYS-PLN-00069-LES/1/0	ROC Pipelines Test Plan	Sonny Lion	DD/MM/YYYY
AD3	ROC-GEN-SYS-PLN-00070-LES/1/0	ROC MUSIC Test Plan	Sonny Lion	DD/MM/YYYY
AD4	ROC-GEN-SYS-PLN-XXXX-LES/1/0	RSS3VC Test Plan	Xavier Bonnin	DD/MM/YYYY

1.3 Reference Documents

This document is based on the documents listed in the following table:

Tab. 1.2: Reference documents

Mark	Reference/Iss/Rev	Title of the document	Authors	Date
RD1				
RD2				
RD3				
RD4				
RD5				
RD6				

1.4 About this document

1.4.1 Access policy

The present document is accessible without any restriction.

Any modification of this document must be approved by the RPW Ground Segment Project Manager before publication.

1.4.2 Terminology

All terms used in this document, and which are not listed in the table below must follow the definition in [AD4].

2 Test configuration

2.1 Requirements and Documents

The RSS3VC requirements and documents are given in [AD4].

2.2 Input Data

The RSS3VC input data are given in [AD4].

2.3 Execution Pre- and Post-Conditions

The RSS3VC pre/post conditions are given in [AD4].

2.4 Entry and Exit Criteria

The RSS3VC entry and exit criteria are given in [AD4].

2.5 Hardware / Environment

The MUSIC FIGARO and FAUST software was tested on the test platform located on the roc-dev.obspm.fr server, as specified in the ROC MUSIC Test Plan [AD3].

A specific environment was also prepared to test the RODP on the roc-dev.obspm.fr server, as specified in the ROC Pipeline Test Plan [AD2].

2.6 Software or Sub-Systems used

The RSS3VC tests were executed for the following software:

- MUSIC-FIGARO prototype V0.0.1 version
- MUSIC-FAUST prototype V0.0.1 version

The following software was not tested:

- RODP preliminary V0.1.0 version

2.7 Personnel

Table below lists the responsibility of people that were involved in the RSS3VC tests.

Tab. 2.1: RSS3VC test responsibility

Entity	Role description	Name	Email
CNES	ROC quality support (metric analysis with Sonarqube)	Dominique Bagot	dominique.bagot@obspm.fr
ROC	RPW Ground Segment Operation Engineer (FIGARO/FAUST beta-tester)	Diane Bérard	diane.berad@obspm.fr
ROC	RPW Ground Segment Project Manager	Xavier Bonnin	xavier.bonnin@obspm.fr
ROC	RPW Ground Segment Software Validation Engineer	Sonny Lion	sonny.lion@obspm.fr
ROC	RPW Ground Segment Software Engineer (RODP tester)	Quynh Nhu Nguyen	quynh-nhu.nguyen@obspm.fr
ROC	RPW Ground Segment Product Assurance Manager	Stéphane Papais	Stephane.PAPAIS@nexeya.com
CNES	RPW ground segment development support	Desi Raulin	desi.raulin@cnes.fr

3 Overview of Tests Results

3.1 Summary table

The RSS3VC tests were performed at LESIA (Meudon, France) between the 17th and 20th of December 2018.

The expected testcases [AD4] as well as some automated tests [AD3] were executed for the MUSIC FIGARO and FAUST tools. The testcases related to the RODP were not completed, since no operational instance of the RODP was ready to be used.

Detailed tests results are listed in the section 4.

Tab. 3.1: General statistics

Application	ID	Status
RODP	ROC-DATA_PROD-010-LZ-01	NOT RUN
RODP	ROC-DATA_PROD-020-L0-01	NOT RUN
RODP	ROC-DATA_PROD-030-L1-01	NOT RUN
RODP	ROC-DATA_PROD-040-HK-01	NOT RUN
Faust	ROC-RPW_COM-050-STP_PROD-01	NOK
Figaro	ROC-RPW_COM-100-SEQ_PROD-01	OK
Figaro	ROC-RPW_COM-110-SEQ_TEST-01	OK
Music	Automated tests	POK

Statistics about tests:

- 25% of tests OK,
- 12.5% of tests NOK
- 12.5% of tests Partial OK (POK)
- 50% of tests NOT RUN (NR)
- 0% of tests NOT COMPLETED (NC)

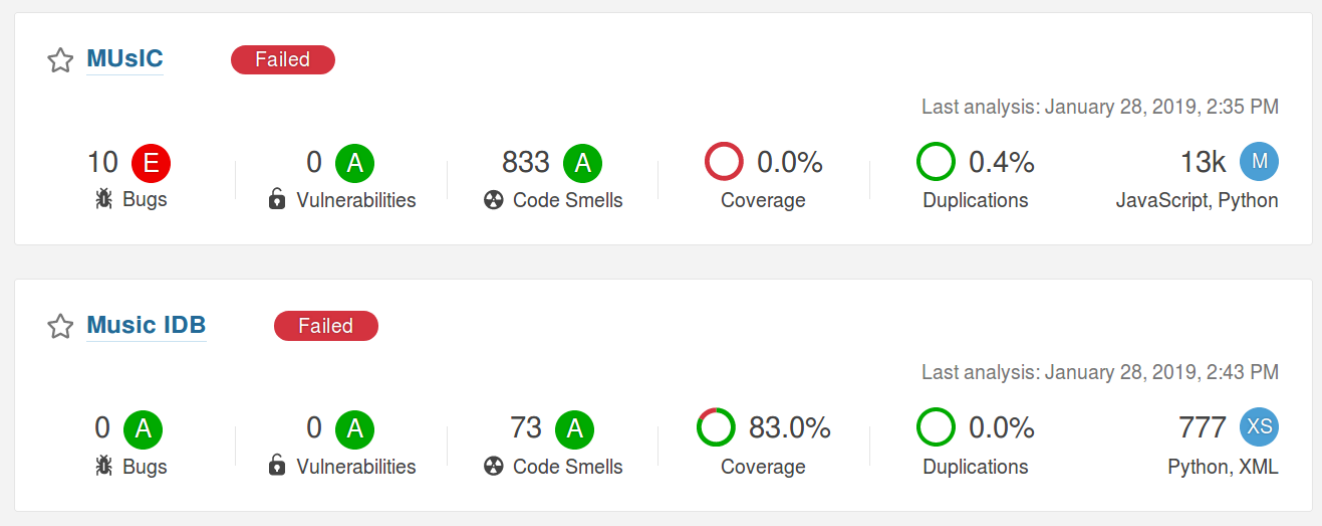

Fig. 3.1: SonarQube Quality Report

3.1.1 MUSIC-FIGARO

All test cases for FIGARO passed and the interface meets the minimum requirements for sequence creation. Some performance issues were encountered during the usage of packets with a lot of parameters. Optimizations are planed for the next releases to facilitate the operators work.

3.1.2 MUSIC-FAUST

None of the test cases passed for FAUST. The application must be completely revised to allow scenario creation and IOR/PDOR exports.

3.1.3 RODP

Developments are still ongoing and tests have been postponed to a later date.

3.2 Impact of the test environment

Due to a delay in the development, the FIGARO and FAUST applications had to be deployed and tested separately. The other specificities of the test environment are summarized in the following table.

Tab. 3.2: Specificity of the test environment

IDB version/source	4.3.3_MEB_PFM/PALISADE
IDB database engine	Postgres
Application database engine	SQLite
Web server	Django
JavaScript compilation mode	Development

4 Detailed Tests Results

4.1 ROC-DATA_PROD-010-LZ

Requirements: REQ-ROC-CIRD-0040

Version: 1

Created By: X. Bonnin

Reviewed By: S. Lion

Test Case Description: Test the production of RPW LZ data files

Tab. 4.1: ROC-DATA_PROD-010-LZ Prerequisites

#	Prerequisites
1	A running test instance of RODP on roc-dev server with specific input/output folders
2	The script “run_roc-data_prod-010-LZ-01_V01.sh” is ready to be run
3	
4	

Tab. 4.2: ROC-DATA_PROD-010-LZ Test Data

#	Test Data
1	Set of RPW DDS “simulated” data input files (available in TBD)
2	Set of RPW LZ “expected” data output files (available in TBD)
3	
4	

Test Scenario: Verify that the RODP produces RPW LZ files as expected

Tab. 4.3: ROC-DATA_PROD-010-LZ Test Steps

#	Step Details	ID of specification(s)	Expected Results	Actual Results	Status
1	Navigate to Jenkins and check the associated automated test report		All tests should pass		
2	Run the "run_roc-data_prod-010-LZ-01_V01.sh" script		The script generate LZ files into TBD folder. A log file named "run_roc-data_prod-010-LZ-01_V01.log" should be found in TBD.		
3					
4					

4.2 ROC-DATA_PROD-020-L0

Requirements: REQ-ROC-CIRD-0050

Version: 1

Created By: X. Bonnin

Reviewed By: S. Lion

Test Case Description: Test the production of RPW L0 data files

Tab. 4.4: ROC-DATA_PROD-020-L0 Prerequisites

#	Prerequisites
1	A running test instance of RODP on roc-dev server with specific input/output folders
2	The script "run_roc-data_prod-020-LZ-01_V01.sh" is ready to be run
3	
4	

Tab. 4.5: ROC-DATA_PROD-020-L0 Test Data

#	Test Data
1	Set of RPW LZ "simulated" data output files (available in TBD)
2	Set of RPW L0 "expected" data output files (available in TBD)
3	
4	

Test Scenario: Verify that the RODP produces RPW L0 files as expected

Tab. 4.6: ROC-DATA_PROD-020-L0 Test Steps

#	Step Details	ID of specification(s)	Expected Results	Actual Results	Status
1	Navigate to Jenkins and check the associated automated test report		All tests should pass		
2	Run the "run_roc-data_prod-020-L0-01_V01.sh" script		The script generate L0 files into TBD folder. A log file named "run_roc-data_prod-020-L0-01_V01.log" should be found in TBD.		
3					
4					

4.3 ROC-DATA_PROD-030-L1

Requirements: REQ-ROC-CIRD-0060

Version: 1

Created By: X. Bonnin

Reviewed By: S. Lion

Test Case Description: Test the production of RPW L1 data files

Tab. 4.7: ROC-DATA_PROD-030-L1 Prerequisites

#	Prerequisites
1	A running test instance of RODP on roc-dev server with specific input/output folders
2	The script "run_roc-data_prod-030-L1-01_V01.sh" is ready to be run
3	
4	

Tab. 4.8: ROC-DATA_PROD-030-L1 Test Data

#	Test Data
1	Set of RPW L0 “simulated” data output files (available in TBD)
2	Set of RPW L1 “expected” data output files (available in TBD)
3	
4	

Test Scenario: Verify that the RODP produces RPW L1 files as expected

Tab. 4.9: ROC-DATA_PROD-030-L1 Test Steps

#	Step Details	ID of specification(s)	Expected Results	Actual Results	Status
1	Navigate to Jenkins and check the associated automated test report		All tests should pass		
2	Run the “run_roc-data_prod-030-L1-01_V01.sh” script		The script generate L1 files into TBD folder. A log file named “run_roc-data_prod-030-L1-01_V01.log” should be found in TBD.		
3					
4					

4.4 ROC-DATA_PROD-040-HK

Requirements: REQ-ROC-CIRD-0090

Version: 1

Created By: X. Bonnin

Reviewed By: S. Lion

Test Case Description: Test the production of RPW HK “digest” data files

Tab. 4.10: ROC-DATA_PROD-040-HK Prerequisites

#	Prerequisites
1	A running test instance of RODP on roc-dev server with specific input/output folders
2	The script “run_roc-data_prod-040-HK-01_V01.sh” is ready to be run
3	
4	

Tab. 4.11: ROC-DATA_PROD-040-HK Test Data

#	Test Data
1	Set of RPW L0 “simulated” data output files (available in TBD)
2	Set of RPW HK “expected” data output files (available in TBD)
3	
4	

Test Scenario: Verify that the RODP produces RPW HK “digest” files as expected

Tab. 4.12: ROC-DATA_PROD-040-HK Test Steps

#	Step Details	ID of specification(s)	Expected Results	Actual Results	Status
1	Navigate to Jenkins and check the associated automated test report		All tests should pass		
2	Run the “run_roc-data_prod-040-HK-01_V01.sh” script		The script generate L0 files into TBD folder. A log file named “run_roc-data_prod-040-HK-01_V01.log” should be found in TBD.		
3					
4					

4.5 ROC-RPW_COM-050-STP_PROD-01

Requirements: REQ-ROC-CIRD-0260

Version: 1

Created By: X. Bonnin

Reviewed By: S. Lion

Test Case Description: Test the production of STP IOR XML file for RPW

Tab. 4.13: ROC-RPW_COM-050-STP_PROD-01 Prerequisites

#	Prerequisites
1	A running instance of MUSIC V0.0.1 on roc-dev:8000
2	Access to Firefox/Chrome/Chromium Browser
3	
4	

Tab. 4.14: ROC-RPW_COM-050-STP_PROD-01 Test Data

#	Test Data
1	Ior file IOR_S_S068F04_SRPW_1.SOL available (https://gitlab.obspm.fr/ROC/OpsLib-Test/blob/master/Tests/SOC/E2E/0th/IORs_E2E0th_v1.5/IOR_S_S068_SRPW_1/IOR_S_S068F04_SRPW_1.SOL)
2	E-FECS files (https://rpw.lesia.obspm.fr/roc/data/private/devtest/esa/sov/E2E-0/)
3	Sequences AIWF035C, AIWF035B, AIWF037C in Figaro
4	

Test Scenario: Verify that the user can export STP IOR XML file with the ROC tool

Tab. 4.15: ROC-RPW_COM-050-STP_PROD-01 Test Steps

#	Step Details	ID of specification(s)	Expected Results	Actual Results	Status
1	Navigate to http://roc-dev:8000/app/faust/		The Faust application should open	http://roc-dev:8000/app/faust/ opens and works	pass
2	Create a scenario named 'rss3vc-rpw_com-050-stp_prod-01_test'		The operator should be able to create a scenario with multiple sequences and parameters	Scenario rss3vc-rpw_com-050-stp_prod-01_test created	pass
3	Fill in the scenario with the expected sequences		After a short time, the STP IOR should appear as a XML page	Impossible to change the timings of each sequence. No possibility to prepare the scenario	fail
4	Export the scenario as IOR		The file should appear in the computer's file system	Export impossible : the windows to export is empty	fail
5	Compute the difference with the IOR file from test_data.		The new IOR should match the given one	No file to compare with	not executed

4.6 ROC-RPW_COM-100-SEQ_PROD

Requirements: REQ-ROC-CIRD-0310

Version: 1

Created By: X. Bonnin

Reviewed By: S. Lion

Test Case Description: Test the generation of RPW TC sequences

Tab. 4.16: ROC-RPW_COM-100-SEQ_PROD Prerequisites

#	Prerequisites
1	A running instance of MUSIC V0.0.1 on roc-dev:8010
2	Access to a web browser (Firefox/Chrome/Chromium)
3	
4	

Tab. 4.17: ROC-RPW_COM-100-SEQ_PROD Test Data

#	Test Data
1	The following sequence(s): AIWF035C.xls
2	
3	
4	

Test Scenario: Verify that the user can generate a TC sequence file as expected

Tab. 4.18: ROC-RPW_COM-100-SEQ_PROD Test Steps

#	Step Details	ID of specification(s)	Expected Results	Actual Results	Status
1	Navigate to http://roc-dev:8010/app/figaro/		The Figaro application should open	http://roc-dev:8010/app/figaro/ opens and works	pass
2	Create a new sequence named AIWF035C_RSS3VC		The new sequence should appear in the sequence list	Sequence AIWF035C_RSS3VC created	pass
3	Fill the sequence with the expected TCs/Packet Checks/Comments/Separtors		The operator should be able to create a complete sequence	Sequence filled in	pass
4	Export the sequence as an XLS file		The file should appear in the computer's file system	Sequence exported and available in the computer's file system as xls	pass
5	Compute the difference between AIWF035C_RSS3VC.xls and AIWF035C.xls		The new sequence should match the given one	minor differences (only in comments)	pass

4.7 ROC-INSTRU_COM-110-SEQ_TEST

Requirements: REQ-ROC-CIRD-0320

Version: 1

Created By: X. Bonnin

Reviewed By: S. Lion

Test Case Description: Test the execution of RPW TC sequences on the MEB GSE.

Tab. 4.19: ROC-INSTRU_COM-110-SEQ_TEST Prerequisites

#	Prerequisites
1	A running instance of MUSIC VX.Y.Z on roc-dev:8000
2	Access to Firefox/Chrome/Chromium Browser
3	Testcase ROC-RPW_COM-100-SEQ_PROD-01 played and successful
4	C-SGSE instance up and running

Tab. 4.20: ROC-INSTRU_COM-110-SEQ_TEST Test Data

#	Test Data
1	
2	
3	
4	

Test Scenario: Verify that the user can export STP IOR XML file with the ROC tool

Tab. 4.21: ROC-INSTRU_COM-110-SEQ_TEST Test Steps

#	Step Details	ID of specification(s)	Expected Results	Actual Results	Status
1	Navigate to http://roc-dev:8010/app/figaro/		The Figaro application should open	http://roc-dev:8010/app/figaro/ opens and works	pass
2	Select the sequence named 'AIWF035C_RSS3VC'		After a short time, the C-SGSE script should appear as a XML page	Sequence AIWF035C_RSS3VC found	pass
3	Export as C-SGSE to download the file		The file should appear in the computer's file system	Sequence exported and available in the computer's file system as c-sgse file	pass
4	Import the file in C-SGSE tools		The import should be successful	XML imported in C-SGSE	pass

4.8 MUSIC automated test report

Tab. 4.22: MUSIC automated test report

Class	Name	Status
backend.figaro.tests.FigaroApi	test_create_sequence__no_statements	passed
backend.figaro.tests.FigaroApi	test_create_sequence__unique_name	passed
backend.figaro.tests.FigaroApi	test_get_sequence_list___no_filter	passed
backend.figaro.tests.FigaroApi	test_put_sequence__all_statement_types	failure
backend.figaro.tests.FigaroApi	test_put_sequence__no_statements	failure
backend.tests.test_api.MusicApi	test_api_root	failure
backend.tv.tests.TvApi	test_get_packet_list___no_filter	failure

5 Test Review Board Declaration

No formal test review board (TRB) has been planned for the RSS3VC.

6 List of TBC/TBD/TBWS

(TBW)

7 Distribution list

(TBW)