

REVISIONS

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NAME	DATE	MASSACHUSETTS INSTITUTE OF TECHNOLOGY CENTER FOR SPACE RESEARCH			
Drawn: <i>R. Blozie</i> <i>R. Blozie</i>	03/31/97	S/W Verification Run Test Procedures			
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LIST OF UNDETERMINED ITEMS

1.

PROCEDURES FOR SW VERIFICATION REPORT GENERATION

1.0 Scope

This procedure establishes the specific duties that individuals will follow for producing test reports as specified in SDM10.

1.1 Identification

Test reports are generally produced as a result of running a test script. This test report format is based in the one specified in SDM10 and contains the following:

DATE RUN	Date report was produced.
REPORT PART NUMBER	“36-57303.xxyy..y” where <i>xx</i> is the test procedure number and <i>yy..y</i> represent the test script extension.
REPORT NUMBER	36-01510.xxxx as indicated in the Verification Procedure.
TEST SCRIPT	Test script part number.
SCRIPT FILE	The path and file name of the test script.
WORKING DIRECTORY	Path where test was run.
PROCEDURE PARAGRAPHS VERIFIED	Test Procedure paragraphs verified by this report.
CEI PARAGRAPHS VERIFIED	The CEI paragraphs verified as found in the Test Procedure.
SOFTWARE VERSION	The version of ACIS software on which the test script was run.
IPCL VERSION	Version of IP&CL test script used.
HARDWARE CONFIGURATION	Identify BEP, FEP, DEA boards, CCDs as to number and whether engineering or flight.
HOST	The host on which the test script was run.
TEST CONDUCTOR	Who ran the test.
RCS STATUS	RCS status of test script.
DESCRIPTION	A Description of what requirements the test report covers.
SUMMARY OF TEST RESULTS	Either PASSED or FAILED.
NUMBER OF TEST THAT FAILED	Number of tests that FAILED
NUMBER OF DEVIATIONS	Identify requirements that could not be tested because of test resource limitations
DETAILED TEST RESULTS	Identify which test procedure test steps passed and which ones failed. On none failed, NONE must be printed.

1.2 Responsibilities

1.2.1 Developer of test procedures

1. Produce test procedures to verify various paragraphs in the SRS. The purpose of these test procedures is to frame the test to specify what is to be verified.
2. In the test procedure, where the developer can use his/her discretion use words like "it is suggested" or "may" or "could" are used
3. Review and keep track of the reports that are run and sign as cognizant engineer.
4. Give the test report to the Project Engineer.

1.2.2 Developer of test scripts

1. Produce test scripts using the test procedure, and referenced documents in the test procedure.
2. Each test case within a test script must be easily traceable to a test procedure test paragraph.
3. The test script should produce a test report as specified in the introduction above. In addition, each PASS/FAIL statement in the test procedure must be easily tractable to a similar statement in the test report.
4. Set up the test files structure. The highest level of the directory shall include the filename found in "§1.1 Introduction" of the test procedure.
5. The file structure shall be as follows:

filename	contents
aux	contains misc. stuff
images	contains images used in test
RCS	revision control directory for scripts
reports	contains the reports
scripts	contains the scripts that produced the reports
telemetry	contains the telemetry that was used to produce the report

1.2.3 The Test Conductor

1. Follows the procedures in section 3.0 below.

1.2.4 The Project Engineer

1. Review the test report to see if the hardware and software version used is sufficient to verify the requirement.
2. If the test is sufficient, sign as project engineer in the quality line of the report and give the report to the Document Administrator.

1.2.5 Document Administrator

1. If there is a REPORT NUMBER indicated on the cover of the test report the report is filed with the acceptance data package.
2. If there no REPORT NUMBER. it is filed with the Software Verification Test reports.

2.0 Applicable Documents

Documents		Titles
1	36-01202 Rev A	Product Assurance and Safety Plan for ACIS
2	36-01206	ACIS Configuration Management Plan
3	ACDB	ACIS Configuration Database

3.0 Testing Procedures

1. Ensure that the version of the ACIS software is the one desired—before the test script is run, check the software version in the start-up message before patches are installed.
2. At the beginning of the day check the version of hardware: Is it engineering or flight.
3. Ensure that you as the test conductor are running from your log-in id.
4. Ensure that the images and aux directories contain the data required for the test.
5. Get to scripts directory `~alan/VER_PROCS/filename/scripts` or other developers' script environment providing that the directory form follows §1.2.2.5 above.
6. Run the test. The current version will automatically be check out of RCS.
7. Examine the report
 - a. If failures are present, spend up to an hour and ensure that the failure is not due to operator error.
 - b. If failures are present and no operator error, save the *aux*, *images*, *scripts*, *telemetry* and *report* directories as *yymmddaux*, *yymmddimages*, etc.
 - c. IF failures are present and no operator error, fill out a software trouble report.
 - d. If no failures print the report
 - i. Check that the report, test script and procedures numbers agree.
 - ii. Check that the SOFTWARE VERSION is correct.
 - iii. Check that the HARDWARE VERSION is correct.
 - iv. Check that the RCS STATUS reflects the test script run.
 - v. Check that the SUMMARY OF TEST RESULTS is PASSED and that the detailed reports covers all the test procedure steps as specified in the test script.
 - vi. Give the report to SQA.
8. Go on to the next test.