NASA GSFC FLIGHT SOFTWARE SYSTEMS BRANCH

FSW VERSION DESCRIPTION DOCUMENT

CFS LC APPLICATION

BUILD: LC 2.1.1

RELEASE DATE: 6/25/2019

1.0 FSW VERSION DESCRIPTION

1.1 PURPOSE AND SUMMARY

This build is a minor build of the Limit Checker (LC) application to provide compatibility with cFE 6.6. This build provides compatibility with cFE 6.6, compatibility with the CMake build system, and some minor code cleanup.

1.2 NEW/CHANGED FUNCTIONALITY IN THIS VERSION

Table 1.2-1 identifies the DCRs that have been implemented in this FSW version. For each DCR the "Key" column shows the corresponding DCR in the GSFC cFS tracking system.

Table 1.2-1 – DCRs Implemented in this Version

Key	Summary	Description
GSFCCFS-767	move lc to ut_assert test framework	LC should have their test frameworks ported to ut_assert to be in-line with the main infrastructure.
GSFCCFS-901	LC must be tested with cFE 6.6	
GSFCCFS-947	Fix LC compilation error with cFE 6.6	Building LC with cFE 6.6 generates an error

No new functionality was added in this build.

1.3 MISSING PLANNED FEATURES AND KNOWN PROBLEMS

Table 1.3-1 identifies currently open DCRs that are not addressed in this build.

Any workarounds that may apply are identified.

Refer to the Delivery Letter for any additional DCRs submitted after preparation of this VDD.

Table 1.3-1 – Currently open DCRs

Key	Summary
GSFCCFS-935	LC: remove "type" from event IDs
GSFCCFS-772	LC: Add requirement for handling byte-swapped inputs
GSFCCFS-770	LC - platform-endian bytes
GSFCCFS-769	LC - more deterministic behavior
GSFCCFS-768	LC: support 64-bit types
GSFCCFS-753	LC - improve events, generate debug events
GSFCCFS-744	LC Transitions Active Action Points to Passive When Application is in Passive Mode

2.0 DELIVERED PRODUCTS

Table 2-1 identifies the locations of FSW products relevant to this FSW Build. The version or date of the Build and where the product can be located are provided. Changes from a previous VDD are identified.

Table 2-1 – Delivered Products and their Locations

Software Element	Changed with this Version?	New Version or Date	Location
Source Code of this FSW Build	Yes		
Unit Test Results	No		

4.0 CONFIGURATION SUMMARY AND VERSION IDENTIFICATION

This software can be found in the LC GitHub repository under the tag “LC-2.1.1”.

ACRONYMS

ACS ..... Attitude Control System
C&DH..... Command and Data Handling
cFS..... Core Flight System
CM ..... Configuration Management
COTS ..... Commercial Off-The-Shelf
DCR ..... Discrepancy/Change Request
ETU..... Engineering Test Unit
FSB..... Flight Software Branch
FSW ..... Flight Software
I&T ..... Integration & Test
LC..... Limit Checker
RTOS ..... Real-Time Operating System
T&C..... Telemetry and Command
URL..... Universal Resource Locator
VDD ..... Version Description Document