

**NASA GSFC FLIGHT SOFTWARE SYSTEMS BRANCH**

**FSW VERSION DESCRIPTION DOCUMENT**

**CFS CS APPLICATION**

**BUILD: CS 2.4.1**

**RELEASE DATE: 6/24/2019**

## 1.0 FSW VERSION DESCRIPTION

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### 1.1 PURPOSE AND SUMMARY

This build is a minor build of the Checksum (CS) 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-904	CS must be tested with cFE 6.6	
GSFCCFS-944	Fix CS compilation errors/warnings with cFE 6.6	Building CS with cFE 6.6 generates several warnings/errors

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-964	CS test CS_BackgroundTables_Test_Miscompare failing when some tests do not run
GSFCCFS-963	CS Unit tests run failure because of stack smashing
GSFCCFS-962	CS app referencing incorrect ut_assert stubs
GSFCCFS-952	Checksum errors after restarting app
GSFCCFS-951	ES - RegisteredTasks Counter Does Not Decrement When Child Tasks are Exited
GSFCCFS-929	CS CRC values may lead to confusion
GSFCCFS-927	CS Build Warnings
GSFCCFS-926	CS Suggest additional platform config options
GSFCCFS-754	CS: Fix compiler error using with the latest build scripts
GSFCCFS-741	Stack smashing via CFE_SB_InitMsg in CS unit test

## 2.0 DELIVERED PRODUCTS

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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**

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This software can be found in the CS GitHub repository under the tag “CS-2.4.1”.

**ACRONYMS**

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