

**NASA GSFC FLIGHT SOFTWARE SYSTEMS BRANCH**

**FSW VERSION DESCRIPTION DOCUMENT**

**CFS SCH APPLICATION**

**BUILD: SCH 2.2.2**

**RELEASE DATE: 6/25/2019**

## 1.0 FSW VERSION DESCRIPTION

### 1.1 PURPOSE AND SUMMARY

This build is a minor build of the Scheduler (SCH) 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-758	SCH cmake table integration	This ticket contains an update to the SCH app to build its table files in addition to the normal SCH build.
GSFCCFS-908	SCH must be tested with cFE 6.6	
GSFCCFS-949	Fix SCH compilation errors with cFE 6.6	Building SCH with cFE 6.6 generates a compilation 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-939	SCH: remove "type" from event ID's
GSFCCFS-763	SCH - Should the Scheduler Table's Types be Configurable?
GSFCCFS-762	SCH - Consider Moving Group Macro Definitions to a Header File
GSFCCFS-757	SCH: Remove dependencies on cfe_platform_cfg
GSFCCFS-756	SCH occasionally hangs when CFS is stopped
GSFCCFS-740	SCH - Timer Configuration Issues
GSFCCFS-739	SCH - Minor Frame Interrupt Processed Before Receipt of Startup Sync
GSFCCFS-738	SCH - Does Not Protect Scheduler Table Slots from Being Commanded
GSFCCFS-735	SCH_ValidateMessageData fails for CCSDS_VER_2
GSFCCFS-732	SCH - Inaccuracies in Scheduler Minor Frame Slot Timing/Processing
GSFCCFS-729	SCH message table does not validate on little-endian architectures.

## 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 SCH GitHub repository under the tag “SCH-2.2.2”.

**ACRONYMS**

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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
RTOS .....	Real-Time Operating System
SCH.....	Scheduler
T&C.....	Telemetry and Command
URL.....	Universal Resource Locator
VDD .....	Version Description Document