PRODUCT INFORMATION

1 PRODUCT NAME
FLIGHT SOFTWARE

2 PART NUMBER
n/a

3 PRODUCT TYPE
- Software

4 CCSDS RECOMMENDATION(S) OR CCSDS AGENCY STANDARD(S) TO WHICH PRODUCT CONFORMS
CCSDS 101.0-B-3 Telemetry Channel Coding
CCSDS 102.0-B-4 Packet Telemetry
CCSDS 201.0-B-2 Telecommand Part 1 -- Channel Service
CCSDS 202.0-B-2 Telecommand Part 2 -- Data Routing Service
CCSDS 701.0-B-2 Advanced Orbiting Systems, Networks and Data Links: Architectural Specifications

5 APPLICABLE DOMAIN:
- On-Board Data Systems

6 FUNCTIONAL DESCRIPTION OF PRODUCT IN TERMS OF RELEVANT CCSDS RECOMMENDATION(S)
The flight software is a custom-developed suite of embedded software tasks designed to perform on-board Command & Data Handling (C&DH) and Attitude Control System (ACS) functions.

The C&DH components provide command ingest and telemetry output of data in CCSDS-compliant format, as well as other software and communication services (health & safety, inter-task communications, data storage, etc.).

The ACS component provides spacecraft guidance, navigation and control capabilities. Incoming and outgoing commands are processed as CCSDS-compliant command packets, and data and telemetry are processed as CCSDS-compliant telemetry packets.

All inter-task communications (on the same processor and between processors over a communications bus) is performed via CCSDS-compliant data and command packets.

7 PERFORMANCE CHARACTERISTICS
- General
  o Special performance characteristics

None

  o Areas of non-conformance or deviations from relevant Recommendation(s)
None

- Software:
  - System requirements

  System requirements vary depending on the requirements, design and capabilities of the specific mission/spacecraft.

8  PHYSICAL CHARACTERISTICS (HARDWARE)

n/a

9  PROPRIETARY INTERFACES/SYSTEM ENVIRONMENTS

None

10  ILLUSTRATIONS (OPTIONAL)

None

11  HERITAGE (IF APPLICABLE):

- Earth Orbiter-1 (ACS Flight Software)
- SMEX-Lite (C&DH and ACS Flight Software)

12  COMPANY NAME

the Hammers Company, Inc.

13  POINT(S) OF CONTACT/WEB SITE

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14  ADDRESS INFORMATION/

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