

CubeSat - Milestone 3

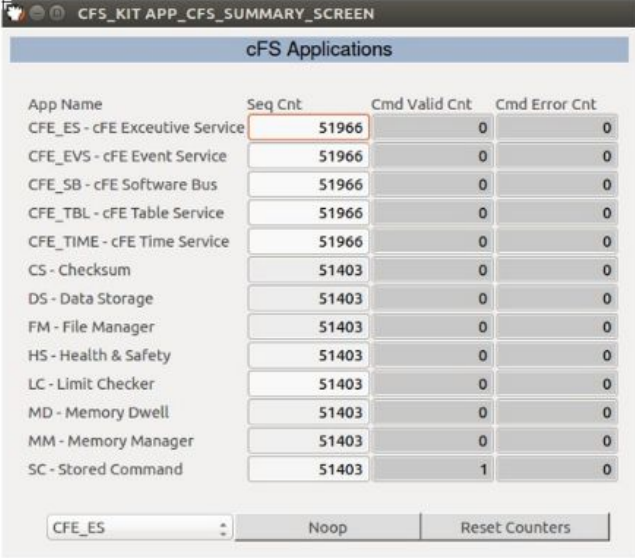
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Milestone 3 Outline

- Recovering and implementing test application
- Continue work on simulation
- Work on final application development

Test Application

- Due to a crash of the VM I was developing on, some progress was lost.
- Daily backups were made so not too damaging

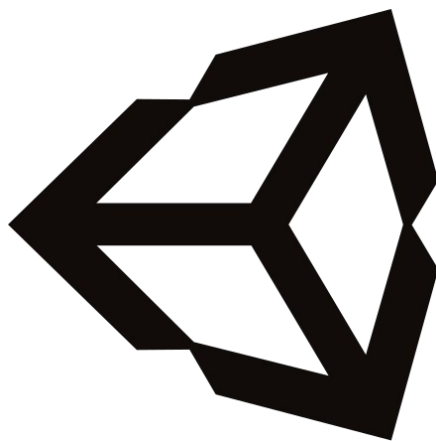


The screenshot shows a window titled "CFS_KIT APP_CFS_SUMMARY_SCREEN" with a sub-header "cFS Applications". It displays a table with four columns: "App Name", "Seq Cnt", "Cmd Valid Cnt", and "Cmd Error Cnt". The "Seq Cnt" column for the first five applications (CFE_ES through CFE_TIME) is highlighted with a red box and contains the value 51966. The "Cmd Valid Cnt" and "Cmd Error Cnt" columns for these applications all contain 0. The remaining applications (CS through SC) have a "Seq Cnt" of 51403, "Cmd Valid Cnt" of 0, and "Cmd Error Cnt" of 0, except for SC which has a "Cmd Valid Cnt" of 1. At the bottom, there is a dropdown menu set to "CFE_ES", a "Noop" button, and a "Reset Counters" button.

App Name	Seq Cnt	Cmd Valid Cnt	Cmd Error Cnt
CFE_ES - cFE Executive Service	51966	0	0
CFE_EVS - cFE Event Service	51966	0	0
CFE_SB - cFE Software Bus	51966	0	0
CFE_TBL - cFE Table Service	51966	0	0
CFE_TIME - cFE Time Service	51966	0	0
CS - Checksum	51403	0	0
DS - Data Storage	51403	0	0
FM - File Manager	51403	0	0
HS - Health & Safety	51403	0	0
LC - Limit Checker	51403	0	0
MD - Memory Dwell	51403	0	0
MM - Memory Manager	51403	0	0
SC - Stored Command	51403	1	0

Simulation Progress

- Simulation progress has been put aside to work on recovering the lost prototype & implementing sensors into working program.
 - Environmental setup is nearly complete



unity

Implementation of Final Application

- Continued work on final application
 - Application framework almost completed
 - Designing open-ended module to allow for easier addition of sensors

The image shows two side-by-side screenshots of the Packet Viewer application. The left window displays data for a packet labeled 'PREV_SUBSCRIBE_TLM_PKT', and the right window displays data for a packet labeled 'HK_TLM_PKT'. Both windows show a table of telemetry items and their values.

Left Window: Packet Viewer - Formatted Telemetry with Units

Target: CFE_SB | Packet: PREV_SUBSCRIBE_TLM_PKT

Description: SB Previous Subscriptions Packet sent in response to a SEND_PREV_SUBS command

Item	Value
1 *PACKET_TIMESECONDS:	0.000000
2 *PACKET_TIMEFORMATTED:	No Packet Time
3 *RECEIVED_TIMESECONDS:	0.000000
4 *RECEIVED_TIMEFORMATTED:	No Packet Received Time
5 *RECEIVED_COUNT:	0
6 CCSDS_STREAMID:	0x0000
7 CCSDS_SEQUENCE:	0
8 CCSDS_LENGTH:	0
9 CCSDS_SECONDS:	0
10 CCSDS_SUBSECS:	0
11 PKT_SEGMENT:	0
12 TOTAL_SEGMENTS:	0
13 ENTRIES:	0
14 ENTRY:	["0","0","0","0","0","0","0","0","0","0","0","0","0","0","0","0","0","0","0","0"]

Packet Identification

Right Window: Packet Viewer - Formatted Telemetry with Units

Packet: HK_TLM_PKT

Value
1607113314.537965
2020/12/04 12:21:54.537
1607113314.537965
2020/12/04 12:21:54.537
1260
0x0883
50518
7
4038860
56379
2
0

or the last reset counter command

Milestone 4 Plan

Tasks
Simulation
Final Application Development
Work on ground system implementation