

## LFR-FSW - Bug #477

### R3 \*\*\* fields HK\_LFR\_LAST\_REJ\_TC\_ID and HK\_LFR\_LAST\_REJ\_TC\_TYPE erroneous in TM\_LFR\_HK

27/07/2015 01:50 PM - Veronique bouzid

<b>Status:</b>	Closed	<b>Start date:</b>	27/07/2015
<b>Priority:</b>	Urgent	<b>Due date:</b>	
<b>Assignee:</b>	Veronique bouzid	<b>% Done:</b>	0%
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>		<b>Spent time:</b>	0.00 hour
<b>revision:</b>	r0		

#### Description

Depuis la version 3.0.0.x, il semble que la gestion des commandes rejetées soient devenues erronées.

Les informations inscrites dans les TM\_LFR\_HK concernant ce rejet sont

HK\_LFR\_REJ\_TC\_CNT  
HK\_LFR\_LAST\_REJ\_TC\_ID  
HK\_LFR\_LAST\_REJ\_TC\_TYPE  
HK\_LFR\_LAST\_REJ\_TC\_SUBTYPE  
HK\_LFR\_LAST\_REJ\_TC\_TIME

les champs erronés sont

HK\_LFR\_LAST\_REJ\_TC\_ID  
HK\_LFR\_LAST\_REJ\_TC\_TYPE

C'est observé sur

TM\_LFR\_TC\_EXE\_NOT\_EXECUTABLE  
TM\_LFR\_TC\_EXE\_CORRUPTED

Le test utilisé est /opt/VALIDATION\_R3/lfrverif/LFR\_SVS/SVS-0003/loop\_tm\_lfr\_tc\_exe.py mais n'importe quel test rejetant une TC met en évidence le bug.

le fichier de log est /home/validation/data/R3/3.0.0.3/SVS-0003/2015\_06\_04-15\_48\_35-Detail.txt

15:46:37.265176, **TC\_LFR\_ENTER\_MODE** (CP\_LFR\_MODE=0), CCSDS\_VERSION\_NUMBER = 0, PACKET\_TYPE: TC\_PACKET = 1, DATA\_FIELD\_HEADER\_FLAG: WITH\_HEADER = 1, PROCESS\_ID: RPW\_PID\_2 = 76, PACKET\_CATEGORY: PRIVATE\_SCIENCE\_OR\_TELECOMMAND = 12, (**PACKET\_ID=0x1ccc**), SEGMENTATION\_GROUPING\_FLAG: STANDALONE\_PACKET = 3, SEQUENCE\_CNT=6565, (PACKET\_SEQUENCE\_CONTROL=0xd9a5), PACKET\_LENGTH=13, CCSDS\_SECONDARY\_HEADER\_FLAG=0, PUS\_VERSION = 1, ACK\_EXECUTION\_COMPLETION=1, ACK\_EXECUTION\_PROGRESS=0, ACK\_EXECUTION\_START=0, ACK\_ACCEPTANCE=1, **SERVICE\_TYPE: EQ\_CONFIGURATION = 181, SERVICE\_SUBTYPE: ENTER\_MODE = 41**, SOURCE\_ID: MISSION\_TIMELINE = 110, SPARE=0, CP\_LFR\_MODE: STANDBY = 0, CP\_LFR\_ENTER\_MODE\_TIME=0x000000000000, CRC = 0x1419

15:46:37.284992, **TM\_LFR\_TC\_EXE\_NOT\_EXECUTABLE**, CCSDS\_VERSION\_NUMBER = 0, PACKET\_TYPE: TM\_PACKET = 0, DATA\_FIELD\_HEADER\_FLAG: WITH\_HEADER = 1, PROCESS\_ID: RPW\_PID\_2 = 76, PACKET\_CATEGORY: ACKNOWLEDGE = 1, (PACKET\_ID=0xcc1), SEGMENTATION\_GROUPING\_FLAG: STANDALONE\_PACKET = 3, SEQUENCE\_CNT=0, (PACKET\_SEQUENCE\_CONTROL=0xc000), PACKET\_LENGTH=19, SPARE\_1=0, PUS\_VERSION = 1, SPARE\_2=0, SERVICE\_TYPE: TELECOMMAND\_VERIFICATION = 1, SERVICE\_SUBTYPE: TC\_EXECUTION\_COMPLETION\_FAILURE = 8, DESTINATION\_ID: MISSION\_TIMELINE = 110, TIME=0x8000001d2365, PA\_RPW\_TC\_FAILURE\_CODE: TC\_NOT\_EXE = 42000, PA\_RPW\_TELECOMMAND\_PKT\_ID=0x1ccc, PA\_RPW\_PKT\_SEQ\_CONTROL=0xd9a5, PA\_RPW\_TC\_SERVICE=181, PA\_RPW\_TC\_SUBTYPE=41, HK\_LFR\_MODE: STANDBY = 0, HK\_LFR\_DPU\_SPW\_ENABLED: ENABLED = 1, HK\_LFR\_DPU\_SPW\_LINK\_STATE: RUN = 5, SPARE=0, SY\_LFR\_WATCHDOG\_ENABLED: DISABLED = 0, HK\_LFR\_CALIB\_ENABLED: DISABLED = 0, HK\_LFR\_RESET\_CAUSE: UNKNOWN\_CAUSE = 0

15:46:37.342316, **TM\_LFR\_HK**, CCSDS\_VERSION\_NUMBER = 0, PACKET\_TYPE: TM\_PACKET = 0, DATA\_FIELD\_HEADER\_FLAG: WITH\_HEADER = 1, PROCESS\_ID: RPW\_PID\_2 = 76, PACKET\_CATEGORY: HK\_ROUTINE = 4, (PACKET\_ID=0xcc4), SEGMENTATION\_GROUPING\_FLAG: STANDALONE\_PACKET = 3, SEQUENCE\_CNT=27, (PACKET\_SEQUENCE\_CONTROL=0xc01b), PACKET\_LENGTH=129, SPARE\_1=0, PUS\_VERSION = 1, SPARE\_2=0, SERVICE\_TYPE: HOUSEKEEPING\_AND\_DIAGNOSTIC\_DATA\_REPORTING = 3, SERVICE\_SUBTYPE: HK\_PARAMETER\_REPORT = 25, DESTINATION\_ID: GROUND = 0, TIME=0x8000001d31f3, PA\_LFR\_HK\_REPORT\_SID: LFR\_HK\_SID = 1, HK\_LFR\_MODE: STANDBY = 0, HK\_LFR\_DPU\_SPW\_ENABLED: ENABLED = 1, HK\_LFR\_DPU\_SPW\_LINK\_STATE: RUN = 5, SPARE=0x0, HK\_LFR\_SC\_POTENTIEL\_FLAG: OFF = 0,

HK\_LFR\_MAG\_FIELDS\_FLAG: OFF = 0, SY\_LFR\_WATCHDOG\_ENABLED: DISABLED = 0, HK\_LFR\_CALIB\_ENABLED: DISABLED = 0, HK\_LFR\_RESET\_CAUSE: UNKNOWN\_CAUSE = 0, SY\_LFR\_SW\_VERSION\_N1=3, SY\_LFR\_SW\_VERSION\_N2=0, SY\_LFR\_SW\_VERSION\_N3=0, SY\_LFR\_SW\_VERSION\_N4=3, SY\_LFR\_FPGA\_VERSION\_N1=1, SY\_LFR\_FPGA\_VERSION\_N2=1, SY\_LFR\_FPGA\_VERSION\_N3=68, HK\_LFR\_CPU\_LOAD=0.392156862745, HK\_LFR\_CPU\_LOAD\_MAX=1.96078431373, HK\_LFR\_CPU\_LOAD\_AVE=0.0, HK\_LFR\_Q\_SD\_FIFO\_SIZE\_MAX=1, HK\_LFR\_Q\_SD\_FIFO\_SIZE=50, HK\_LFR\_Q\_RV\_FIFO\_SIZE\_MAX=1, HK\_LFR\_Q\_RV\_FIFO\_SIZE=10, HK\_LFR\_Q\_P0\_FIFO\_SIZE\_MAX=0, HK\_LFR\_Q\_P0\_FIFO\_SIZE=10, HK\_LFR\_Q\_P1\_FIFO\_SIZE\_MAX=0, HK\_LFR\_Q\_P1\_FIFO\_SIZE=10, HK\_LFR\_Q\_P2\_FIFO\_SIZE\_MAX=0, HK\_LFR\_Q\_P2\_FIFO\_SIZE=5, HK\_LFR\_UPDATE\_INFO\_TC\_CNT=0, HK\_LFR\_UPDATE\_TIME\_TC\_CNT=0, HK\_LFR\_EXE\_TC\_CNT=0, HK\_LFR\_REJ\_TC\_CNT=1, HK\_LFR\_LAST\_EXE\_TC\_ID=0x0, HK\_LFR\_LAST\_EXE\_TC\_TYPE=0, HK\_LFR\_LAST\_EXE\_TC\_SUBTYPE=0, HK\_LFR\_LAST\_EXE\_TC\_TIME=0x000000000000, **HK\_LFR\_LAST\_REJ\_TC\_ID=0x1c00**, **HK\_LFR\_LAST\_REJ\_TC\_TYPE=0**, HK\_LFR\_LAST\_REJ\_TC\_SUBTYPE=41, HK\_LFR\_LAST\_REJ\_TC\_TIME=0x8000001d2365,

ici pour TM\_LFR\_TC\_EXE\_CORRUPTED

15:46:39.285341, TC\_LFR\_RESET, CCSDS\_VERSION\_NUMBER = 0, PACKET\_TYPE: TC\_PACKET = 1, DATA\_FIELD\_HEADER\_FLAG: WITH\_HEADER = 1, PROCESS\_ID: RPW\_PID\_2 = 76, PACKET\_CATEGORY: PRIVATE\_SCIENCE\_OR\_TELECOMMAND = 12, (PACKET\_ID=0x1ccc), SEGMENTATION\_GROUPING\_FLAG: STANDALONE\_PACKET = 3, SEQUENCE\_CNT=153, (PACKET\_SEQUENCE\_CONTROL=0xc099), PACKET\_LENGTH=5, CCSDS\_SECONDARY\_HEADER\_FLAG=0, PUS\_VERSION = 1, ACK\_EXECUTION\_COMPLETION=1, ACK\_EXECUTION\_PROGRESS=0, ACK\_EXECUTION\_START=0, ACK\_ACCEPTANCE=1, SERVICE\_TYPE: EQ\_CONFIGURATION = 181, SERVICE\_SUBTYPE: RESET = 1, SOURCE\_ID: MISSION\_TIMELINE = 110, /!\CRC = 0x1b65(exp=0x1b64)

15:46:39.30235, TM\_LFR\_TC\_EXE\_CORRUPTED, CCSDS\_VERSION\_NUMBER = 0, PACKET\_TYPE: TM\_PACKET = 0, DATA\_FIELD\_HEADER\_FLAG: WITH\_HEADER = 1, PROCESS\_ID: RPW\_PID\_2 = 76, PACKET\_CATEGORY: ACKNOWLEDGE = 1, (PACKET\_ID=0xcc1), SEGMENTATION\_GROUPING\_FLAG: STANDALONE\_PACKET = 3, SEQUENCE\_CNT=1, (PACKET\_SEQUENCE\_CONTROL=0xc001), PACKET\_LENGTH=25, SPARE\_1=0, PUS\_VERSION = 1, SPARE\_2=0, SERVICE\_TYPE: TELECOMMAND\_VERIFICATION = 1, SERVICE\_SUBTYPE: TC\_EXECUTION\_COMPLETION\_FAILURE = 8, DESTINATION\_ID: MISSION\_TIMELINE = 110, TIME=0x8000001f27a5, PA\_RPW\_TC\_FAILURE\_CODE: CORRUPTED = 42005, PA\_RPW\_TELECOMMAND\_PKT\_ID=0x1ccc, PA\_RPW\_PKT\_SEQ\_CONTROL=0xc099, PA\_RPW\_TC\_SERVICE=181, PA\_RPW\_TC\_SUBTYPE=1, PA\_RPW\_PKT\_LEN\_RCV\_VALUE=5, PA\_RPW\_PKT\_DATFIELDSIZE\_CNT=5, PA\_RPW\_RCV\_CRC=0x1b65, PA\_RPW\_COMPUTED\_CRC=0x1b64

15:46:39.342327, **TM\_LFR\_HK**, CCSDS\_VERSION\_NUMBER = 0, PACKET\_TYPE: TM\_PACKET = 0, DATA\_FIELD\_HEADER\_FLAG: WITH\_HEADER = 1, PROCESS\_ID: RPW\_PID\_2 = 76, PACKET\_CATEGORY: HK\_ROUTINE = 4, (PACKET\_ID=0xcc4), SEGMENTATION\_GROUPING\_FLAG: STANDALONE\_PACKET = 3, SEQUENCE\_CNT=29, (PACKET\_SEQUENCE\_CONTROL=0xc01d), PACKET\_LENGTH=129, SPARE\_1=0, PUS\_VERSION = 1, SPARE\_2=0, SERVICE\_TYPE: HOUSEKEEPING\_AND\_DIAGNOSTIC\_DATA\_REPORTING = 3, SERVICE\_SUBTYPE: HK\_PARAMETER\_REPORT = 25, DESTINATION\_ID: GROUND = 0, TIME=0x8000001f31f4, PA\_LFR\_HK\_REPORT\_SID: LFR\_HK\_SID = 1, HK\_LFR\_MODE: STANDBY = 0, HK\_LFR\_DPU\_SPW\_ENABLED: ENABLED = 1, HK\_LFR\_DPU\_SPW\_LINK\_STATE: RUN = 5, SPARE=0x0, HK\_LFR\_SC\_POTENTIEL\_FLAG: OFF = 0, HK\_LFR\_MAG\_FIELDS\_FLAG: OFF = 0, SY\_LFR\_WATCHDOG\_ENABLED: DISABLED = 0, HK\_LFR\_CALIB\_ENABLED: DISABLED = 0, HK\_LFR\_RESET\_CAUSE: UNKNOWN\_CAUSE = 0, SY\_LFR\_SW\_VERSION\_N1=3, SY\_LFR\_SW\_VERSION\_N2=0, SY\_LFR\_SW\_VERSION\_N3=0, SY\_LFR\_SW\_VERSION\_N4=3, SY\_LFR\_FPGA\_VERSION\_N1=1, SY\_LFR\_FPGA\_VERSION\_N2=1, SY\_LFR\_FPGA\_VERSION\_N3=68, HK\_LFR\_CPU\_LOAD=0.392156862745, HK\_LFR\_CPU\_LOAD\_MAX=1.96078431373, HK\_LFR\_CPU\_LOAD\_AVE=0.0, HK\_LFR\_Q\_SD\_FIFO\_SIZE\_MAX=1, HK\_LFR\_Q\_SD\_FIFO\_SIZE=50, HK\_LFR\_Q\_RV\_FIFO\_SIZE\_MAX=1, HK\_LFR\_Q\_RV\_FIFO\_SIZE=10, HK\_LFR\_Q\_P0\_FIFO\_SIZE\_MAX=0, HK\_LFR\_Q\_P0\_FIFO\_SIZE=10, HK\_LFR\_Q\_P1\_FIFO\_SIZE\_MAX=0, HK\_LFR\_Q\_P1\_FIFO\_SIZE=10, HK\_LFR\_Q\_P2\_FIFO\_SIZE\_MAX=0, HK\_LFR\_Q\_P2\_FIFO\_SIZE=5, HK\_LFR\_UPDATE\_INFO\_TC\_CNT=0, HK\_LFR\_UPDATE\_TIME\_TC\_CNT=0, HK\_LFR\_EXE\_TC\_CNT=0, HK\_LFR\_REJ\_TC\_CNT=2, HK\_LFR\_LAST\_EXE\_TC\_ID=0x0, HK\_LFR\_LAST\_EXE\_TC\_TYPE=0, HK\_LFR\_LAST\_EXE\_TC\_SUBTYPE=0, HK\_LFR\_LAST\_EXE\_TC\_TIME=0x000000000000, **HK\_LFR\_LAST\_REJ\_TC\_ID=0x1c00**, **HK\_LFR\_LAST\_REJ\_TC\_TYPE=0**, HK\_LFR\_LAST\_REJ\_TC\_SUBTYPE=1, HK\_LFR\_LAST\_REJ\_TC\_TIME=0x8000001f27a5

Parfois les 2 champs sont renseignés mais avec des valeurs erronées

15:46:40.342321, **TM\_LFR\_HK**, CCSDS\_VERSION\_NUMBER = 0, PACKET\_TYPE: TM\_PACKET = 0, DATA\_FIELD\_HEADER\_FLAG: WITH\_HEADER = 1, PROCESS\_ID: RPW\_PID\_2 = 76, PACKET\_CATEGORY: HK\_ROUTINE = 4, (PACKET\_ID=0xcc4), SEGMENTATION\_GROUPING\_FLAG: STANDALONE\_PACKET = 3, SEQUENCE\_CNT=30, (PACKET\_SEQUENCE\_CONTROL=0xc01e), PACKET\_LENGTH=129, SPARE\_1=0, PUS\_VERSION = 1, SPARE\_2=0, SERVICE\_TYPE: HOUSEKEEPING\_AND\_DIAGNOSTIC\_DATA\_REPORTING = 3, SERVICE\_SUBTYPE: HK\_PARAMETER\_REPORT = 25, DESTINATION\_ID: GROUND = 0, TIME=0x8000002031f4, PA\_LFR\_HK\_REPORT\_SID: LFR\_HK\_SID = 1, HK\_LFR\_MODE: STANDBY = 0, HK\_LFR\_DPU\_SPW\_ENABLED: ENABLED = 1, HK\_LFR\_DPU\_SPW\_LINK\_STATE: RUN = 5, SPARE=0x0, HK\_LFR\_SC\_POTENTIEL\_FLAG: OFF = 0, HK\_LFR\_MAG\_FIELDS\_FLAG: OFF = 0, SY\_LFR\_WATCHDOG\_ENABLED: DISABLED = 0, HK\_LFR\_CALIB\_ENABLED: DISABLED = 0, HK\_LFR\_RESET\_CAUSE: UNKNOWN\_CAUSE = 0, SY\_LFR\_SW\_VERSION\_N1=3, SY\_LFR\_SW\_VERSION\_N2=0, SY\_LFR\_SW\_VERSION\_N3=0, SY\_LFR\_SW\_VERSION\_N4=3, SY\_LFR\_FPGA\_VERSION\_N1=1, SY\_LFR\_FPGA\_VERSION\_N2=1, SY\_LFR\_FPGA\_VERSION\_N3=68,

HK\_LFR\_CPU\_LOAD=0.392156862745, HK\_LFR\_CPU\_LOAD\_MAX=1.96078431373, HK\_LFR\_CPU\_LOAD\_AVE=0.0,  
HK\_LFR\_Q\_SD\_FIFO\_SIZE\_MAX=1, HK\_LFR\_Q\_SD\_FIFO\_SIZE=50, HK\_LFR\_Q\_RV\_FIFO\_SIZE\_MAX=1,  
HK\_LFR\_Q\_RV\_FIFO\_SIZE=10, HK\_LFR\_Q\_P0\_FIFO\_SIZE\_MAX=0, HK\_LFR\_Q\_P0\_FIFO\_SIZE=10,  
HK\_LFR\_Q\_P1\_FIFO\_SIZE\_MAX=0, HK\_LFR\_Q\_P1\_FIFO\_SIZE=10, HK\_LFR\_Q\_P2\_FIFO\_SIZE\_MAX=0,  
HK\_LFR\_Q\_P2\_FIFO\_SIZE=5, HK\_LFR\_UPDATE\_INFO\_TC\_CNT=0, HK\_LFR\_UPDATE\_TIME\_TC\_CNT=0,  
HK\_LFR\_EXE\_TC\_CNT=3, HK\_LFR\_REJ\_TC\_CNT=4, HK\_LFR\_LAST\_EXE\_TC\_ID=0x1ccc,  
HK\_LFR\_LAST\_EXE\_TC\_TYPE=181, HK\_LFR\_LAST\_EXE\_TC\_SUBTYPE=19,  
HK\_LFR\_LAST\_EXE\_TC\_TIME=0x8000002024d5, **HK\_LFR\_LAST\_REJ\_TC\_ID=0x1cb5**, **HK\_LFR\_LAST\_REJ\_TC\_TYPE=19**,  
HK\_LFR\_LAST\_REJ\_TC\_SUBTYPE=13,

Les tests effectués sur les versions 3.0.0.4, 3.0.0.8 montrent le même bug

les tests effectués sur l'EQM en R2 sont corrects (voir  
/home/validation/data/R2-EQM/2.0.2.3/SVS-0003/2015\_05\_25-10\_26\_57-Detail.txt).

#### ATTENTION

Il faut également vérifier le comportement des autres **TM\_LFR\_TC\_EXE\_xxxx**  
comme **TM\_LFR\_TC\_EXE\_INCONSISTENT** car **TM\_LFR\_TC\_EXE\_NOT\_IMPLEMENTED** et **TM\_LFR\_TC\_EXE\_NOT\_ERROR** ne  
peuvent être testées.

Contexte du test

FSW 3.0.0.3 ou 3.0.0.8

VHDL 1.1.83 ( \_c car chgt de contrainte sur timing) ou 1.1.88

EM sans Timegen

SocExplorerEngine.getSocExplorer: Version = 0.6.2, Branch = default, Changeset = 819d0376d481

StarDundee

## History

### #1 - 27/07/2015 01:58 PM - Veronique bouzid

Le bug est observé de la même façon sur **TM\_LFR\_TC\_EXE\_INCONSISTENT**

ici la trace observé sur le script /opt/VALIDATION\_R3/lfrverif/LFR\_SVS/SVS-0019/tm\_sequence\_counter\_loop.py  
le fichier de log /home/validation/data/R3/data/R3/3.0.0.8/1.1.88/SVS-0019/2015\_07\_24-16\_03\_05-Detail.txt

15:33:37.883514, **TC\_LFR\_ENTER\_MODE** (CP\_LFR\_MODE=15), CCSDS\_VERSION\_NUMBER = 0, PACKET\_TYPE: TC\_PACKET = 1,  
DATA\_FIELD\_HEADER\_FLAG: WITH\_HEADER = 1, PROCESS\_ID: RPW\_PID\_2 = 76, PACKET\_CATEGORY:  
PRIVATE\_SCIENCE\_OR\_TELECOMMAND = 12, (**PACKET\_ID=0x1ccc**), SEGMENTATION\_GROUPING\_FLAG: STANDALONE\_PACKET = 3,  
SEQUENCE\_CNT=7855, (PACKET\_SEQUENCE\_CONTROL=0xdeadf), PACKET\_LENGTH=13, CCSDS\_SECONDARY\_HEADER\_FLAG=0,  
PUS\_VERSION = 1, ACK\_EXECUTION\_COMPLETION=1, ACK\_EXECUTION\_PROGRESS=0, ACK\_EXECUTION\_START=0,  
ACK\_ACCEPTANCE=1, **SERVICE\_TYPE: EQ\_CONFIGURATION = 181**, SERVICE\_SUBTYPE: ENTER\_MODE = 41, SOURCE\_ID:  
RPW\_INTERNAL = 254, SPARE=0, /!\CP\_LFR\_MODE: 15, CP\_LFR\_ENTER\_MODE\_TIME=0x000000000000, CRC = 0x70bf

15:33:37.891816, **TM\_LFR\_TC\_EXE\_INCONSISTENT**, CCSDS\_VERSION\_NUMBER = 0, PACKET\_TYPE: TM\_PACKET = 0,  
DATA\_FIELD\_HEADER\_FLAG: WITH\_HEADER = 1, PROCESS\_ID: RPW\_PID\_2 = 76, PACKET\_CATEGORY: ACKNOWLEDGE = 1,  
(PACKET\_ID=0xcc1), SEGMENTATION\_GROUPING\_FLAG: STANDALONE\_PACKET = 3, SEQUENCE\_CNT=288,  
(PACKET\_SEQUENCE\_CONTROL=0xc120), PACKET\_LENGTH=19, SPARE\_1=0, PUS\_VERSION = 1, SPARE\_2=0, SERVICE\_TYPE:  
TELECOMMAND\_VERIFICATION = 1, SERVICE\_SUBTYPE: TC\_EXECUTION\_COMPLETION\_FAILURE = 8, DESTINATION\_ID:  
RPW\_INTERNAL = 254, TIME=0x800000e52b59, PA\_RPW\_TELECOMMAND\_PKT\_ID=0x1ccc, PA\_RPW\_PKT\_SEQ\_CONTROL=0xdeadf,  
PA\_RPW\_TC\_FAILURE\_CODE: WRONG\_APP\_DATA = 5, PA\_RPW\_TC\_SERVICE=181, PA\_RPW\_TC\_SUBTYPE=41,  
PA\_RPW\_BYTE\_POSITION=11, PA\_RPW\_RCV\_VALUE=15

15:33:37.921575, **TM\_LFR\_HK**, CCSDS\_VERSION\_NUMBER = 0, PACKET\_TYPE: TM\_PACKET = 0, DATA\_FIELD\_HEADER\_FLAG:  
WITH\_HEADER = 1, PROCESS\_ID: RPW\_PID\_2 = 76, PACKET\_CATEGORY: HK\_ROUTINE = 4, (PACKET\_ID=0xcc4),  
SEGMENTATION\_GROUPING\_FLAG: STANDALONE\_PACKET = 3, SEQUENCE\_CNT=227, (PACKET\_SEQUENCE\_CONTROL=0xc0e3),  
PACKET\_LENGTH=129, SPARE\_1=0, PUS\_VERSION = 1, SPARE\_2=0, SERVICE\_TYPE:  
HOUSEKEEPING\_AND\_DIAGNOSTIC\_DATA\_REPORTING = 3, SERVICE\_SUBTYPE: HK\_PARAMETER\_REPORT = 25, DESTINATION\_ID:  
GROUND = 0, TIME=0x800000e533b9, PA\_LFR\_HK\_REPORT\_SID: LFR\_HK\_SID = 1, HK\_LFR\_MODE: SBM1 = 3,  
HK\_LFR\_DPU\_SPW\_ENABLED: ENABLED = 1, HK\_LFR\_DPU\_SPW\_LINK\_STATE: RUN = 5, SPARE=0x0, HK\_LFR\_SC\_POTENTIEL\_FLAG: ON  
= 1, HK\_LFR\_MAG\_FIELDS\_FLAG: OFF = 0, SY\_LFR\_WATCHDOG\_ENABLED: DISABLED = 0, HK\_LFR\_CALIB\_ENABLED: DISABLED = 0,  
HK\_LFR\_RESET\_CAUSE: UNKNOWN\_CAUSE = 0, SY\_LFR\_SW\_VERSION\_N1=3, SY\_LFR\_SW\_VERSION\_N2=0,  
SY\_LFR\_SW\_VERSION\_N3=0, SY\_LFR\_SW\_VERSION\_N4=8, SY\_LFR\_FPGA\_VERSION\_N1=1, SY\_LFR\_FPGA\_VERSION\_N2=1,  
SY\_LFR\_FPGA\_VERSION\_N3=88, HK\_LFR\_CPU\_LOAD=17.6470588235, HK\_LFR\_CPU\_LOAD\_MAX=23.9215686274,  
HK\_LFR\_CPU\_LOAD\_AVE=0.0, HK\_LFR\_Q\_SD\_FIFO\_SIZE\_MAX=4, HK\_LFR\_Q\_SD\_FIFO\_SIZE=50, HK\_LFR\_Q\_RV\_FIFO\_SIZE\_MAX=1,  
HK\_LFR\_Q\_RV\_FIFO\_SIZE=10, HK\_LFR\_Q\_P0\_FIFO\_SIZE\_MAX=1, HK\_LFR\_Q\_P0\_FIFO\_SIZE=10, HK\_LFR\_Q\_P1\_FIFO\_SIZE\_MAX=1,  
HK\_LFR\_Q\_P1\_FIFO\_SIZE=10, HK\_LFR\_Q\_P2\_FIFO\_SIZE\_MAX=1, HK\_LFR\_Q\_P2\_FIFO\_SIZE=5, HK\_LFR\_UPDATE\_INFO\_TC\_CNT=0,  
HK\_LFR\_UPDATE\_TIME\_TC\_CNT=0, HK\_LFR\_EXE\_TC\_CNT=750, HK\_LFR\_REJ\_TC\_CNT=199, HK\_LFR\_LAST\_EXE\_TC\_ID=0x1ccc,  
HK\_LFR\_LAST\_EXE\_TC\_TYPE=181, HK\_LFR\_LAST\_EXE\_TC\_SUBTYPE=27, HK\_LFR\_LAST\_EXE\_TC\_TIME=0x800000e25cd6,  
**HK\_LFR\_LAST\_REJ\_TC\_ID=0x1cb5**, **HK\_LFR\_LAST\_REJ\_TC\_TYPE=27**, HK\_LFR\_LAST\_REJ\_TC\_SUBTYPE=41,  
HK\_LFR\_LAST\_REJ\_TC\_TIME=0x800000e52b59,

## #2 - 28/09/2015 04:05 PM - paul leroy

- Status changed from New to Feedback

- Assignee changed from paul leroy to Veronique bouzid

J'ai fait le test avec 3.0.0.8, je n'observe pas le bug. J'ai envoyé un mode = 15 (INCONSISTENT) comme toi, et j'ai également demandé un mode STANDBY en étant déjà en mode STANDBY (NOT EXECUTABLE)?

J'ai regardé les HK avec LFR SGSE, ce que tu peux également essayer de faire.

Pourrais-tu vérifier que l'extraction des champs dans ton script est correcte?

## #3 - 28/09/2015 06:42 PM - Veronique bouzid

- Status changed from Feedback to Resolved

J'ai vérifié le fichier Tm.csv et les informations sont correctes.

Donc, c'est la fonction Detail de la TM\_LFR\_HK qui est en cause.

Effectivement, le fichier /opt/VALIDATION\_R3/lfrverif/common/icd/tm\_lfr\_hk\_analyze.py ne décode pas correctement les 2 champs HK\_LFR\_LAST\_REJ\_TC\_ID et HK\_LFR\_LAST\_REJ\_TC\_TYPE

```
"HK_LFR_LAST_REJ_TC_ID=" + hex(
    (tm_ccsds[59] << 8) | tm_ccsds[50]) + ', ' +
    "HK_LFR_LAST_REJ_TC_TYPE=" + str(
    (tm_ccsds[61] << 8) | tm_ccsds[52]) + ', ' +
```

J'ai donc remplacé 50 par 60 et 52 par 62.

```
"HK_LFR_LAST_REJ_TC_ID=" + hex(
    (tm_ccsds[59] << 8) | tm_ccsds[60]) + ', ' +
    "HK_LFR_LAST_REJ_TC_TYPE=" + str(
    (tm_ccsds[61] << 8) | tm_ccsds[62]) + ', ' +
```

--> test à rejouer

## #4 - 29/09/2015 12:36 PM - Veronique bouzid

- Status changed from Resolved to Closed

le bug a disparu.

La fonction en cause est utilisé dans tous les tests, le script /opt/VALIDATION\_R3/lfrverif/LFR\_SVS/SVS-0003/loop\_tm\_lfr\_tc\_exe.py a été joué pour valider la modification

Voici la trace

```
09:44:28.551515, TC_LFR_ENTER_MODE (CP_LFR_MODE=0), CCSDS_VERSION_NUMBER = 0, PACKET_TYPE: TC_PACKET = 1,
DATA_FIELD_HEADER_FLAG: WITH_HEADER = 1, PROCESS_ID: RPW_PID_2 = 76, PACKET_CATEGORY:
PRIVATE_SCIENCE_OR_TELECOMMAND = 12, (PACKET_ID=0x1ccc), SEGMENTATION_GROUPING_FLAG: STANDALONE_PACKET = 3,
SEQUENCE_CNT=10385, (PACKET_SEQUENCE_CONTROL=0xe891), PACKET_LENGTH=13, CCSDS_SECONDARY_HEADER_FLAG=0,
PUS_VERSION = 1, ACK_EXECUTION_COMPLETION=1, ACK_EXECUTION_PROGRESS=0, ACK_EXECUTION_START=0,
ACK_ACCEPTANCE=1, SERVICE_TYPE: EQ_CONFIGURATION = 181, SERVICE_SUBTYPE: ENTER_MODE = 41, SOURCE_ID:
MISSION_TIMELINE = 110, SPARE=0, CP_LFR_MODE: STANDBY = 0, CP_LFR_ENTER_MODE_TIME=0x000000000000, CRC = 0x910f
```

```
09:44:28.579472, TM_LFR_TC_EXE_NOT_EXECUTABLE, CCSDS_VERSION_NUMBER = 0, PACKET_TYPE: TM_PACKET = 0,
DATA_FIELD_HEADER_FLAG: WITH_HEADER = 1, PROCESS_ID: RPW_PID_2 = 76, PACKET_CATEGORY: ACKNOWLEDGE = 1,
(PACKET_ID=0xcc1), SEGMENTATION_GROUPING_FLAG: STANDALONE_PACKET = 3, SEQUENCE_CNT=0,
(PACKET_SEQUENCE_CONTROL=0xc000), PACKET_LENGTH=19, SPARE_1=0, PUS_VERSION = 1, SPARE_2=0, SERVICE_TYPE:
TELECOMMAND_VERIFICATION = 1, SERVICE_SUBTYPE: TC_EXECUTION_COMPLETION_FAILURE = 8, DESTINATION_ID:
MISSION_TIMELINE = 110, TIME=0x8000000b2f7a, PA_RPW_TELECOMMAND_PKT_ID=0x1ccc, PA_RPW_PKT_SEQ_CONTROL=0xe891,
PA_RPW_TC_FAILURE_CODE: TC_NOT_EXE = 42000, PA_RPW_TC_SERVICE=181, PA_RPW_TC_SUBTYPE=41, HK_LFR_MODE: STANDBY
= 0, HK_LFR_DPU_SPW_ENABLED: ENABLED = 1, HK_LFR_DPU_SPW_LINK_STATE: RUN = 5, SPARE=0, HK_LFR_SC_POTENTIAL_FLAG:
OFF = 0, HK_LFR_MAG_FIELDS_FLAG: OFF = 0, SY_LFR_WATCHDOG_ENABLED: DISABLED = 0, HK_LFR_CALIB_ENABLED: DISABLED = 0,
HK_LFR_RESET_CAUSE: UNKNOWN_CAUSE = 0
```

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09:44:28.596632, TM_LFR_HK, CCSDS_VERSION_NUMBER = 0, PACKET_TYPE: TM_PACKET = 0, DATA_FIELD_HEADER_FLAG:
WITH_HEADER = 1, PROCESS_ID: RPW_PID_2 = 76, PACKET_CATEGORY: HK_ROUTINE = 4, (PACKET_ID=0xcc4),
SEGMENTATION_GROUPING_FLAG: STANDALONE_PACKET = 3, SEQUENCE_CNT=9, (PACKET_SEQUENCE_CONTROL=0xc009),
PACKET_LENGTH=129, SPARE_1=0, PUS_VERSION = 1, SPARE_2=0, SERVICE_TYPE:
HOUSEKEEPING_AND_DIAGNOSTIC_DATA_REPORTING = 3, SERVICE_SUBTYPE: HK_PARAMETER_REPORT = 25, DESTINATION_ID:
GROUND = 0, TIME=0x8000000b33b8, PA_LFR_HK_REPORT_SID: LFR_HK_SID = 1, HK_LFR_MODE: STANDBY = 0,
HK_LFR_DPU_SPW_ENABLED: ENABLED = 1, HK_LFR_DPU_SPW_LINK_STATE: RUN = 5, SPARE=0x0, HK_LFR_SC_POTENTIAL_FLAG:
OFF = 0, HK_LFR_MAG_FIELDS_FLAG: OFF = 0, SY_LFR_WATCHDOG_ENABLED: DISABLED = 0, HK_LFR_CALIB_ENABLED: DISABLED = 0,
HK_LFR_RESET_CAUSE: UNKNOWN_CAUSE = 0, SY_LFR_SW_VERSION_N1=3, SY_LFR_SW_VERSION_N2=0,
SY_LFR_SW_VERSION_N3=0, SY_LFR_SW_VERSION_N4=8, SY_LFR_FPGA_VERSION_N1=1, SY_LFR_FPGA_VERSION_N2=1,
```

SY\_LFR\_FPGA\_VERSION\_N3=89, HK\_LFR\_CPU\_LOAD=0.78431372549, HK\_LFR\_CPU\_LOAD\_MAX=1.96078431373,  
HK\_LFR\_CPU\_LOAD\_AVE=0.0, HK\_LFR\_Q\_SD\_FIFO\_SIZE\_MAX=1, HK\_LFR\_Q\_SD\_FIFO\_SIZE=50, HK\_LFR\_Q\_RV\_FIFO\_SIZE\_MAX=1,  
HK\_LFR\_Q\_RV\_FIFO\_SIZE=10, HK\_LFR\_Q\_P0\_FIFO\_SIZE\_MAX=0, HK\_LFR\_Q\_P0\_FIFO\_SIZE=10, HK\_LFR\_Q\_P1\_FIFO\_SIZE\_MAX=0,  
HK\_LFR\_Q\_P1\_FIFO\_SIZE=10, HK\_LFR\_Q\_P2\_FIFO\_SIZE\_MAX=0, HK\_LFR\_Q\_P2\_FIFO\_SIZE=5, HK\_LFR\_UPDATE\_INFO\_TC\_CNT=0,  
HK\_LFR\_UPDATE\_TIME\_TC\_CNT=0, HK\_LFR\_EXE\_TC\_CNT=0, HK\_LFR\_REJ\_TC\_CNT=1, HK\_LFR\_LAST\_EXE\_TC\_ID=0x0,  
HK\_LFR\_LAST\_EXE\_TC\_TYPE=0, HK\_LFR\_LAST\_EXE\_TC\_SUBTYPE=0, HK\_LFR\_LAST\_EXE\_TC\_TIME=0x000000000000,  
**HK\_LFR\_LAST\_REJ\_TC\_ID=0x1ccc, HK\_LFR\_LAST\_REJ\_TC\_TYPE=181, HK\_LFR\_LAST\_REJ\_TC\_SUBTYPE=41,**  
HK\_LFR\_LAST\_REJ\_TC\_TIME=0x8000000b2f7a,

Conséquence

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Tous fichiers Detail.txt générés avant la modification auront ce défaut. Les fichiers Detail.txt générés à partir du 29/09/2015 sont corrects.