

## LFR-FSW - Bug #117

### Gestion de SEQUENCE\_CNT dans les TM\_LFR\_\*

09/04/2014 04:59 PM - Gerald Saule

<b>Status:</b>	Closed	<b>Start date:</b>	09/04/2014
<b>Priority:</b>	Immediate	<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>	2.00 hours
<b>revision:</b>	r114		

#### Description

Le champ SEQUENCE\_CNT des TM correspond au nombre de TM pour chaque couple (PACKET\_ID,DESTINATION\_ID).

Il y a un pb d'homogénéité lors de l'implémentation de cette affectation:

-Pour PACKET\_ID=0xcfc et DESTINATION\_ID: GROUND = 0 (TM\_LFR\_SCIENCE\_SBM1\_CWF\_F1), la premier paquet est en SEQUENCE\_CNT=0.

-Pour les autres couples, le premier paquet est en SEQUENCE\_CNT=1.

#### Les SEQUENCE\_CNT doivent commencer à 0 dès la première TM (cf. mail Philippe Plasson 4/06/2014)

D'autre part, il y a aussi un pb sur le pivot pour TM\_LFR\_SCIENCE\_SBM1\_CWF\_F1 (PACKET\_ID=0xcfc, DESTINATION\_ID: GROUND = 0): après SEQUENCE\_CNT=255, on repasse malheureusement à SEQUENCE\_CNT=0.

#### Contexte:

LPPMON: Version=0.2.2 Branch=default Changeset=835955994d5f

Carte mini-LFR: LFR-172200 dev V1.0; No série III (sans connecteurs sub-click)

Vhdl: mini-lfr\_0.1.9

Brique Star-Dundee S/N <illisible>.

Soft:1.0.0.5 (variante sur carte finale)

TEST CASE = SVS-0019

Req = SSS-CP-FS-590

RPW-SYS-IDB-00067-LES\_Issue2\_Rev2

RPW-SYS-MEB-LFR-ICD-00097 Issue2\_Rev2

RPW-SYS-SSS-00013-LES + Annex\_Release\_Definition Issue2\_rev2

#### History

##### #1 - 02/05/2014 02:07 PM - paul leroy

- Status changed from New to Resolved

- Assignee changed from paul leroy to bruno katra

fsw >= 1.0.0.6

Le compteur de TM\_LFR\_SCIENCE\_SBM1\_CWF\_F1 commence maintenant à 1.

Le passage de 255 à 256 se fait correctement. Je pense qu'à ce niveau, le bug était côté analyse et pas côté flight software. Il faut vérifier l'analyse du champ sequence\_cnt.

Pendant les tests, il apparaît que des paquets TM sont perdus par la brique Star Dundee. La vérification effectuée avec la brique GRESB montre que la brique Star Dundee est en cause. Le problème vient soit de la brique soit de son utilisation par le RMAPPlugin. Je crée une nouvelle issue ([#149](#)) pour cet aspect qu'il faudra élucider.

**#2 - 13/05/2014 11:36 AM - Veronique bouzid**

- Status changed from Resolved to Feedback

- Assignee changed from bruno katra to paul leroy

Le test SVS-0019 a été rejoué.

La gestion des SEQUENCE\_CNT est correcte excepté pour la famille des BP où SEQUENCE\_CNT=0

TM\_LFR\_SCIENCE\_NORMAL\_BP1\_F0 TM\_LFR\_SCIENCE\_NORMAL\_BP1\_F1 TM\_LFR\_SCIENCE\_NORMAL\_BP1\_F2  
TM\_LFR\_SCIENCE\_NORMAL\_BP2\_F0 TM\_LFR\_SCIENCE\_NORMAL\_BP2\_F1 TM\_LFR\_SCIENCE\_NORMAL\_BP2\_F2  
TM\_LFR\_SCIENCE\_BURST\_BP1\_F0 TM\_LFR\_SCIENCE\_BURST\_BP1\_F1  
TM\_LFR\_SCIENCE\_BURST\_BP2\_F0 TM\_LFR\_SCIENCE\_BURST\_BP2\_F1  
TM\_LFR\_SCIENCE\_SBM1\_BP1\_F0 TM\_LFR\_SCIENCE\_SBM1\_BP1\_F1  
TM\_LFR\_SCIENCE\_SBM1\_BP2\_F0 TM\_LFR\_SCIENCE\_SBM1\_BP2\_F1  
TM\_LFR\_SCIENCE\_SBM2\_BP1\_F0 TM\_LFR\_SCIENCE\_SBM2\_BP1\_F1  
TM\_LFR\_SCIENCE\_SBM2\_BP2\_F0 TM\_LFR\_SCIENCE\_SBM2\_BP2\_F1

Ici un exemple extrait du fichier 2014\_05\_07-16\_31\_43-Detail.txt après post-traitement

16:06:25.852599, TM\_LFR\_SCIENCE\_NORMAL\_SWF\_F0, PACKET\_ID=0xccc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=19  
16:06:26.153318, TM\_LFR\_SCIENCE\_NORMAL\_SWF\_F1, PACKET\_ID=0xccc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=20  
16:06:26.453487, TM\_LFR\_SCIENCE\_NORMAL\_SWF\_F1, PACKET\_ID=0xccc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=21  
**16:06:26.55209, TM\_LFR\_SCIENCE\_NORMAL\_BP1\_F0, PACKET\_ID=0xccc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=0**  
**16:06:26.56484, TM\_LFR\_SCIENCE\_NORMAL\_BP1\_F1, PACKET\_ID=0xccc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=0**  
**16:06:26.596044, TM\_LFR\_SCIENCE\_NORMAL\_BP1\_F2, PACKET\_ID=0xccc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=0**  
16:06:26.770523, TM\_LFR\_SCIENCE\_NORMAL\_SWF\_F1, PACKET\_ID=0xccc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=22  
16:06:27.063365, TM\_LFR\_SCIENCE\_NORMAL\_SWF\_F1, PACKET\_ID=0xccc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=23

Au sujet des HK, on a observé la perte de 2 paquets HK sur 1968 paquets générés par le test.

J'ai écrit un script pour extraire les SEQUENCE\_CNT et ensuite un prog en idl qui identifie les trous.

Paul propose de rejouer ce test sur la brique GRESB. Voir pt 149.

J'ai joué le test SVS-0090 qui génère 7494 paquets et aucune perte n'est observée.

**#3 - 15/05/2014 10:54 AM - paul leroy**

- Status changed from Feedback to Resolved

- Assignee changed from paul leroy to bruno katra

fsw >= 1.0.0.7

bug identifié et corrigé

Les paquets ASM et BP ont maintenant leur paramètre sequence\_cnt correctement incrémenté.

**#4 - 04/06/2014 12:43 PM - bruno katra**

Demande de précisions à P.Plasson par mail le 4/06 :

Bonjour Philippe, juste un petit éclaircissement sur le requirement SSS-CP-FS-590.

SSS-CP-FS-590 :

The RPW Flight Software shall maintain, for each couple of APID and Destination ID, a TM sequence counter incremented by 1 when a packet is released.

- The sequence counters shall wrap around from  $2^{14}-1$  to zero.
- The sequence counter shall start at zero at startup.

Nous avons un petit dilemme d'interprétation :

"The sequence counter shall start at zero at startup"

et

"sequence counter incremented by 1 when a packet is released"

voudrait dire que le compteur est initialisé à 0 mais incrémenté de 1 lorsque la TM est délivrée i.e. le premier paquet TM d'un couple APID/Dest.ID après lancement initial du soft de vol aura un SEQUENCE\_CNT = 1.

Par contre, une fois le compteur arrivé au bout ( $2^{14}-1$ ) on reviendra bien à 0 i.e. le 16384ème paquet TM d'un couple APID/Dest.ID après lancement initial du soft de vol aura un SEQUENCE\_CNT = 0.

Notre interprétation est-elle correcte?

Merci d'avance de ta réponse.

Bruno

**REPONSE P.PLASSON :**

Bonjour Bruno,

Le premier paquet TM d'un couple APID/Dest.ID après lancement initial du soft de vol doit avoir un SEQUENCE\_CNT = 0.

Cordialement,

Philippe

**#5 - 04/06/2014 05:43 PM - bruno katra**

- Description updated

#6 - 06/06/2014 02:01 PM - bruno katra

- Assignee changed from bruno katra to paul leroy

REPONSE P.PLASSON CONCERNANT LE SEQUENCE\_CNT:

Bonjour Bruno,

Le premier paquet TM d'un couple APID/Dest.ID après lancement initial du soft de vol doit avoir un SEQUENCE\_CNT = 0.

Cordialement,

Philippe

---

Or actuellement tous couples APID/Dest.ID suivants ont SEQUENCE\_CNT=1 la première fois :

Packet Name	APID	DESTINATION ID
TM_LFR_TC*	0x0cc1	
[0,110,111,112,113,120,121,122,15,14,11,254]		
TM_LFR_HK	0x0cc4	0 (GROUND)
TM_LFR_PARAMETER_DUMP	0x0cc9	0
TM_LFR_SCIENCE_L1	0x0ccc	0
TM_LFR_SCIENCE_L2	0x0cfc	0 (Mode SBMx)

-----  
Contexte:

LPPMON: Version=0.2.2 Branch=default Changeset=835955994d5f

Carte mini-LFR: LFR-172200 dev V1.0; No série 5

Vhdl: mini-lfr\_0.1.9

Brique Star-Dundee S/N 46120065

Soft:1.0.0.7 (variante sur carte finale)

TEST CASE = SVS-0019

Req = SSS-CP-FS-590

RPW-SYS-IDB-00067-LES\_Issue2\_Rev2

RPW-SYS-MEB-LFR-ICD-00097 Issue2\_Rev2

RPW-SYS-SSS-00013-LES + Annex\_Release\_Definition Issue2\_rev2

**#7 - 10/06/2014 12:31 PM - bruno katra**

- Priority changed from Normal to Immediate

**#8 - 11/06/2014 02:09 PM - bruno katra**

- Status changed from Resolved to Feedback

**#9 - 12/06/2014 08:09 AM - paul leroy**

- Status changed from Feedback to Resolved

- Assignee changed from paul leroy to bruno katra

fsw >= 1.0.0.9

modification du traitement des SEQUENCE\_CNT pour que la valeur du paramètre dans le premier paquet émis soit égale à 0.

**#10 - 16/06/2014 08:36 AM - Veronique bouzid**

- Status changed from Resolved to Feedback

- Assignee changed from bruno katra to paul leroy

Test rejoué en 1.0.0.9:Ttj pas conforme

**Pour les HK ,**

1- le SEQUENCE\_CNT des HK commence bien à 0 mais c'est la dummy-hk

2- Le SEQUENCE\_CNT ne s'incrémente plus

15:01:10.91966 TM\_LFR\_HK (PACKET\_ID=0xcc4) SEQUENCE\_CNT=0 DESTINATION\_ID: GROUND = 0

15:01:12.829795 TM\_LFR\_HK (PACKET\_ID=0xcc4) SEQUENCE\_CNT=0 DESTINATION\_ID: GROUND = 0

15:01:13.830461 TM\_LFR\_HK (PACKET\_ID=0xcc4) SEQUENCE\_CNT=0 DESTINATION\_ID: GROUND = 0

15:01:14.836327 TM\_LFR\_HK (PACKET\_ID=0xcc4) SEQUENCE\_CNT=0 DESTINATION\_ID: GROUND = 0

15:01:15.829693 TM\_LFR\_HK (PACKET\_ID=0xcc4) SEQUENCE\_CNT=0 DESTINATION\_ID: GROUND = 0

**Pour les TM\_LFR\_EXE\_SUCCESS (INCONSISTENT, NOT\_EXECUTABLE,NOT\_IMPLEMENTED) (PACKET\_ID=0xcc1)**

1- le SEQUENCE\_CNT commence bien à 0

2- Le SEQUENCE\_CNT s'incrémente bien de 1 correctement

15:01:11.40512, TM\_LFR\_TC\_EXE\_SUCCESS, PACKET\_ID=0xcc1, DESTINATION\_ID: TC\_SEQUENCES = 111, SEQUENCE\_CNT=0

15:01:11.605252, TM\_LFR\_TC\_EXE\_SUCCESS, PACKET\_ID=0xcc1, DESTINATION\_ID: TC\_SEQUENCES = 111, SEQUENCE\_CNT=1

15:01:11.805927, TM\_LFR\_TC\_EXE\_SUCCESS, PACKET\_ID=0xcc1, DESTINATION\_ID: RECOVERY\_ACTION\_CMD = 112, SEQUENCE\_CNT=0

15:01:12.00831, TM\_LFR\_TC\_EXE\_SUCCESS, PACKET\_ID=0xcc1, DESTINATION\_ID: RECOVERY\_ACTION\_CMD = 112, SEQUENCE\_CNT=1

15:01:12.209312, TM\_LFR\_TC\_EXE\_SUCCESS, PACKET\_ID=0xcc1, DESTINATION\_ID: RECOVERY\_ACTION\_CMD = 112, SEQUENCE\_CNT=2

15:01:12.410186, TM\_LFR\_TC\_EXE\_SUCCESS, PACKET\_ID=0xcc1, DESTINATION\_ID: BACKUP\_MISSION\_TIMELINE = 113, SEQUENCE\_CNT=0

15:01:12.610766, TM\_LFR\_TC\_EXE\_SUCCESS, PACKET\_ID=0xcc1, DESTINATION\_ID: BACKUP\_MISSION\_TIMELINE = 113, SEQUENCE\_CNT=1

15:01:12.811838, TM\_LFR\_TC\_EXE\_SUCCESS, PACKET\_ID=0xcc1, DESTINATION\_ID: BACKUP\_MISSION\_TIMELINE = 113, SEQUENCE\_CNT=2

**il faut que je verifie pour les autres type EXE (INCONSISTENT, NOT\_EXECUTABLE,NOT\_IMPLEMENTED) ++**

**Pour les TM\_LFR\_PARAMETER\_DUMP (PACKET\_ID=0xcc9)**

1- la sequence commence à ZERO

2- Le SEQUENCE\_CNT ne s'incrémente plus (AVANT c 'était bon)

15:03:10.670414, TM\_LFR\_PARAMETER\_DUMP, PACKET\_ID=0xcc9, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=0

15:03:10.870168, TM\_LFR\_PARAMETER\_DUMP, PACKET\_ID=0xcc9, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=0

15:03:11.08649, TM\_LFR\_PARAMETER\_DUMP, PACKET\_ID=0xcc9, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=0

**Pour les SCIENCE DATA**

1- la sequence ne commence pas a ZERO

2- les sequences par packet id ne sont pas corrects, ici on voit que les TM\_LFR\_SCIENCE\_BURST\_BP1\_F0 (PACKET\_ID=0xccc) sont comptabilisés avec les paquets PACKET\_ID=0xcfc

15:02:18.473355, TM\_LFR\_SCIENCE\_SBM1\_BP1\_F0, PACKET\_ID=0xcfc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=1

15:02:18.748081, TM\_LFR\_SCIENCE\_SBM1\_BP1\_F0, PACKET\_ID=0xcfc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=2

15:02:22.88329, TM\_LFR\_SCIENCE\_BURST\_BP1\_F0, PACKET\_ID=0xccc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=3

15:02:22.895342, TM\_LFR\_SCIENCE\_BURST\_BP1\_F1, PACKET\_ID=0xccc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=4

15:02:23.49797, TM\_LFR\_SCIENCE\_SBM1\_BP1\_F0, PACKET\_ID=0xcfc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=5

15:02:23.774002, TM\_LFR\_SCIENCE\_SBM1\_BP1\_F0, PACKET\_ID=0xcfc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=6

15:02:23.904348, TM\_LFR\_SCIENCE\_SBM1\_CWF\_F1, PACKET\_ID=0xcfc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=7

15:02:23.915794, TM\_LFR\_SCIENCE\_SBM1\_CWF\_F1, PACKET\_ID=0xcfc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=8

15:02:23.919362, TM\_LFR\_SCIENCE\_SBM1\_CWF\_F1, PACKET\_ID=0xcfc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=9

15:02:23.922545, TM\_LFR\_SCIENCE\_SBM1\_CWF\_F1, PACKET\_ID=0xcfc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=10

avec PACKET\_ID=0xcc

15:02:32.708797, TM\_LFR\_SCIENCE\_NORMAL\_BP1\_F0, PACKET\_ID=0xcc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=1  
15:02:32.721777, TM\_LFR\_SCIENCE\_NORMAL\_BP1\_F1, PACKET\_ID=0xcc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=2  
15:02:32.75589, TM\_LFR\_SCIENCE\_NORMAL\_BP1\_F2, PACKET\_ID=0xcc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=3  
15:02:36.714636, TM\_LFR\_SCIENCE\_NORMAL\_BP1\_F0, PACKET\_ID=0xcc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=4  
15:02:36.721473, TM\_LFR\_SCIENCE\_NORMAL\_BP1\_F1, PACKET\_ID=0xcc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=5  
15:02:36.755311, TM\_LFR\_SCIENCE\_NORMAL\_BP1\_F2, PACKET\_ID=0xcc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=6  
15:02:40.71389, TM\_LFR\_SCIENCE\_NORMAL\_BP1\_F0, PACKET\_ID=0xcc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=7  
15:02:40.716315, TM\_LFR\_SCIENCE\_NORMAL\_BP1\_F1, PACKET\_ID=0xcc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=8  
15:02:40.755412, TM\_LFR\_SCIENCE\_NORMAL\_BP1\_F2, PACKET\_ID=0xcc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=9  
15:02:44.70514, TM\_LFR\_SCIENCE\_NORMAL\_BP1\_F0, PACKET\_ID=0xcc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=10

Voici le tableau qu'il faut respecter

**On doit avoir le compteur de séquence qui s'incrémente pour PACKET\_ID=0xcfc**

TM\_LFR\_SCIENCE\_SBM1\_CWF\_F1  
TM\_LFR\_SCIENCE\_SBM2\_CWF\_F2  
TM\_LFR\_SCIENCE\_SBM1\_BP1\_F0  
TM\_LFR\_SCIENCE\_SBM1\_BP2\_F0  
TM\_LFR\_SCIENCE\_SBM2\_BP1\_F0  
TM\_LFR\_SCIENCE\_SBM2\_BP2\_F0  
TM\_LFR\_SCIENCE\_SBM2\_BP1\_F1  
TM\_LFR\_SCIENCE\_SBM2\_BP2\_F1

**On doit avoir le compteur de séquence qui s'incrémente pour PACKET\_ID=0xcc**

TM\_LFR\_SCIENCE\_NORMAL\_\*  
TM\_LFR\_SCIENCE\_BURST\_CWF\_F2  
TM\_LFR\_SCIENCE\_BURST\_BP1\_F0  
TM\_LFR\_SCIENCE\_BURST\_BP1\_F1  
TM\_LFR\_SCIENCE\_BURST\_BP2\_F0  
TM\_LFR\_SCIENCE\_BURST\_BP2\_F1

**#11 - 16/06/2014 12:45 PM - Veronique bouzid**

Suite à l'installation d'une version temporaire

Voici les problèmes rencontrés:

**TM\_LFR\_HK**

1- Le champ SEGMENTATION\_GROUPING\_FLAG:CONTINUATION\_PACKET = 0 ce n'est pas bon, il faut SEGMENTATION\_GROUPING\_FLAG:STANDALONE\_PACKET = 3

10:19:06.010561, **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:

!CONTINUATION\_PACKET = 0, SEQUENCE\_CNT=255,

2- Le SEQUENCE\_CNT repasse à 0 une fois 255 atteint

10:19:06.010561, **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: !CONTINUATION\_PACKET = 0, **SEQUENCE\_CNT=255**,  
10:19:07.010703, **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: !CONTINUATION\_PACKET = 0, **SEQUENCE\_CNT=0**,

Par contre, le SEQUENCE\_CNT commence bien à 0 et il s'incrémente de 1.

10:14:50.994548, **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: !CONTINUATION\_PACKET = 0, **SEQUENCE\_CNT=0**,

**Pour packet PACKET\_ID=0xcc**

1- le SEQUENCE\_CNT ne commence pas à 1

0:16:01.084524, **TM\_LFR\_SCIENCE\_BURST\_BP1\_F0**, CCSDS\_VERSION\_NUMBER = 0, PACKET\_TYPE: TM\_PACKET = 0, DATA\_FIELD\_HEADER\_FLAG: WITH\_HEADER = 1, PROCESS\_ID: RPW\_PID\_2 = 76, PACKET\_CATEGORY: PRIVATE\_SCIENCE\_OR\_TELECOMMAND = 12, (PACKET\_ID=0xcc), SEGMENTATION\_GROUPING\_FLAG: STANDALONE\_PACKET = 3, **SEQUENCE\_CNT=1**, (PACKET\_SEQUENCE\_CONTROL=0xc001), PACKET\_LENGTH=217, SPARE\_1=0, PUS\_VERSION = 1, SPARE\_2=0, SERVICE\_TYPE: SCIENCE\_DATA\_TRANSFER = 21, SERVICE\_SUBTYPE: SCIENCE\_REPORT = 3, DESTINATION\_ID: GROUND = 0, TIME=0x8000004838c5, PA\_LFR\_SID\_PKT: SC\_B\_BP1\_F0 = 17, PA\_BIA\_MODE\_MUX\_SET: SET\_0 = 0, PA\_BIA\_MODE\_HV\_ENABLED: DISABLED = 0, PA\_BIA\_MODE\_BIAS1\_ENABLED: DISABLED = 0, PA\_BIA\_MODE\_BIAS2\_ENABLED: DISABLED = 0, PA\_BIA\_MODE\_BIAS3\_ENABLED: DISABLED = 0, PA\_BIA\_ON\_OFF: OFF = 0, PA\_LFR\_ACQUISITION\_TIME=0x8000004838c5, PA\_LFR\_B\_BP1\_BLK\_NR\_F0=22

Je n'ai pas de produits ASM ni de CWF\_LONG\_F3.

L'absence de produits ASM vient de mon mauvais paramétrage,

10:17:55.429341, **TC\_LFR\_LOAD\_NORMAL\_PAR**, 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=9451, (PACKET\_SEQUENCE\_CONTROL=0xe4eb), PACKET\_LENGTH=15, 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: LOAD\_NORMAL\_PARAMETERS\_1 = 13, SOURCE\_ID: MISSION\_TIMELINE = 110, **SY\_LFR\_N\_SWF\_L = 2048, SY\_LFR\_N\_SWP\_P = 16(s), SY\_LFR\_N\_ASM\_P = 4(s), SY\_LFR\_N\_BP\_P0 = 1(s), SY\_LFR\_N\_BP\_P1 = 1(s), SPARE=0x0, SY\_LFR\_N\_CWF\_LONG\_F3 = 0, SPARE=0x0, CRC = 0xbc31**

j'ai obtenu

10:17:55.444943, **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=11, (PACKET\_SEQUENCE\_CONTROL=0xc00b), 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=0x800000ba9ede, PA\_RPW\_TC\_FAILURE\_CODE: WRONG\_APP\_DATA = 5, PA\_RPW\_TELECOMMAND\_PKT\_ID=0x1ccc, PA\_RPW\_PKT\_SEQ\_CONTROL=0xe4eb, PA\_RPW\_TC\_SERVICE=181, PA\_RPW\_TC\_SUBTYPE=13, **PA\_RPW\_BYTE\_POSITION=16, PA\_RPW\_RCV\_VALUE=1**  
EN fait, PA\_RPW\_BYTE\_POSITION=16 correspond à SY\_LFR\_N\_BP\_P0.

J'ouvre un point redmine pour moi.

Il faut également modifier le script pour obtenir des produits CWF\_LONG\_F3 ou bien utiliser le script SVS-0090 pour valider le sequence\_cnt

**Pour packet PACKET\_ID=0xcfc**

1- le SEQUENCE\_CNT ne commence pas à 1

10:15:56.673802, **TM\_LFR\_SCIENCE\_SBM1\_BP1\_F0**, CCSDS\_VERSION\_NUMBER = 0, PACKET\_TYPE: TM\_PACKET = 0, DATA\_FIELD\_HEADER\_FLAG: WITH\_HEADER = 1, PROCESS\_ID: RPW\_PID\_5 = 79, PACKET\_CATEGORY: PRIVATE\_SCIENCE\_OR\_TELECOMMAND = 12, (PACKET\_ID=0xcfc), SEGMENTATION\_GROUPING\_FLAG: STANDALONE\_PACKET = 3, **SEQUENCE\_CNT=1**,

La bonne nouvelle, les TM\_SCIENCE semblent être correctement affectées dans les bonnes séquences.

J'ai pu observer le passage SEQUENCE\_CNT=16383 vers SEQUENCE\_CNT=0

10:39:25.097842, **TM\_LFR\_SCIENCE\_SBM1\_BP1\_F0**, **PACKET\_ID=0xcfc**, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=16382  
10:39:25.379425, **TM\_LFR\_SCIENCE\_SBM1\_BP1\_F0**, PACKET\_ID=0xcfc, DESTINATION\_ID: GROUND = 0, **SEQUENCE\_CNT=16383**  
10:39:25.381991, **TM\_LFR\_SCIENCE\_SBM1\_BP2\_F0**, PACKET\_ID=0xcfc, DESTINATION\_ID: GROUND = 0, **SEQUENCE\_CNT=0**  
10:39:25.628368, **TM\_LFR\_SCIENCE\_SBM1\_CWF\_F1**, PACKET\_ID=0xcfc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=1





**#14 - 17/06/2014 12:54 PM - Veronique bouzid**

- File 2014\_06\_17-11\_32\_21-Detail.txt added

- Assignee changed from Veronique bouzid to paul leroy

Test rejoué sur 1.0.0.10

Le fichier 2014\_06\_17-11\_32\_21-Detail.txt contient le test SVS-0019. Tous les TM\_LFR\_SCIENCE sont présentes.

**Voici les bugs qui restent**

**TM\_LFR\_HK**

1- Le SEQUENCE\_CNT commence bien à 0 mais il n'y a pas de SEQUENCE\_CNT=1

11:00:11.541031, TM\_LFR\_HK, PACKET\_ID=0xcc4, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=0 -- Dummy-hk

11:00:13.445752, TM\_LFR\_HK, PACKET\_ID=0xcc4, DESTINATION\_ID: GROUND = 0, **SEQUENCE\_CNT=0**

11:00:15.435841, TM\_LFR\_HK, PACKET\_ID=0xcc4, DESTINATION\_ID: GROUND = 0, **SEQUENCE\_CNT=2**

11:00:16.435868, TM\_LFR\_HK, PACKET\_ID=0xcc4, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=3

**Pour packet PACKET\_ID=0xcc**

1- le SEQUENCE\_CNT ne commence pas à 0

11:01:23.472966, TM\_LFR\_SCIENCE\_BURST\_BP1\_F0, PACKET\_ID=0xcc, DESTINATION\_ID: GROUND = 0, \* SEQUENCE\_CNT=1\*

11:01:33.322838, TM\_LFR\_SCIENCE\_NORMAL\_BP1\_F0, PACKET\_ID=0xcc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=2

11:01:37.322988, TM\_LFR\_SCIENCE\_NORMAL\_BP1\_F1, PACKET\_ID=0xcc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=3

**Pour packet PACKET\_ID=0xcfc**

1- le SEQUENCE\_CNT ne commence pas à 0

11:01:19.092192, TM\_LFR\_SCIENCE\_SBM1\_BP1\_F0, PACKET\_ID=0xcfc, DESTINATION\_ID: GROUND = 0, **SEQUENCE\_CNT=1**

11:01:19.342517, TM\_LFR\_SCIENCE\_SBM1\_BP1\_F0, PACKET\_ID=0xcfc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=2

11:01:24.112411, TM\_LFR\_SCIENCE\_SBM1\_BP1\_F0, PACKET\_ID=0xcfc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=3

**#15 - 17/06/2014 01:39 PM - paul leroy**

- Assignee changed from paul leroy to Veronique bouzid

fsw >= 1.0.0.11

Bug identifié et corrigé. Vérification effectuée sur un mode SBM1 avec enregistrement en CSV. Le premier paquet de type 21 a un sequence\_cnt valant 0.

**#16 - 17/06/2014 06:32 PM - Veronique bouzid**

- Status changed from Feedback to Closed

Test rejoué en 1.0.0.11

Tout est bon.

TM\_LFR\_HK

17:03:38.881752, TM\_LFR\_HK, PACKET\_ID=0xcc4, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=0 -DUMMY-HK

17:03:40.797768, TM\_LFR\_HK, PACKET\_ID=0xcc4, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=0

17:03:41.79776, TM\_LFR\_HK, PACKET\_ID=0xcc4, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=1

Pour packet PACKET\_ID=0xccc

17:04:50.813182, TM\_LFR\_SCIENCE\_BURST\_BP1\_F0, PACKET\_ID=0xccc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=0

17:04:50.868992, TM\_LFR\_SCIENCE\_BURST\_BP1\_F1, PACKET\_ID=0xccc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=1

Pour packet PACKET\_ID=0xcfc

17:04:46.381785, TM\_LFR\_SCIENCE\_SBM1\_BP1\_F0, PACKET\_ID=0xcfc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=0

17:04:46.659375, TM\_LFR\_SCIENCE\_SBM1\_BP1\_F0, PACKET\_ID=0xcfc, DESTINATION\_ID: GROUND = 0, SEQUENCE\_CNT=1

-----  
Contexte:

LPPMON: Version=0.2.2 Branch=default Changeset=835955994d5f

Carte mini-LFR: LFR-172200 dev V1.0; No série 5

Vhdl: mini-lfr\_0.1.23

Brique Star-Dundee S/N 46120065

Soft:1.0.0.11 (variante sur carte finale)

TEST CASE = SVS-0019

Req = SSS-CP-FS-590

RPW-SYS-IDB-00067-LES\_Issue2\_Rev2

RPW-SYS-MEB-LFR-ICD-00097 Issue2\_Rev2

RPW-SYS-SSS-00013-LES + Annex\_Release\_Definition Issue2\_rev2

## Files

---

2014\_06\_17-11\_32\_21-Detail.txt

23.6 MB

17/06/2014

Veronique bouzid