

HifiManCmd_OBS_SEU_check
 File: H_FCP_HIF_CSEU.xls
 Author: R. Biggins



Procedure Summary

Objectives

The objective of this procedure is to check the ICU memory areas.

Based on procedure:
 HifiManCmd_OBS_SEU_check (v2)

Summary of Constraints

This test is correct for the OBSW version 6.5.3

Spacecraft Configuration

Start of Procedure

End of Procedure

Reference File(s)

Input Command Sequences

Output Command Sequences
 HFCSEU

Referenced Displays

ANDs GRDs SLDs
 ZAZ9C999

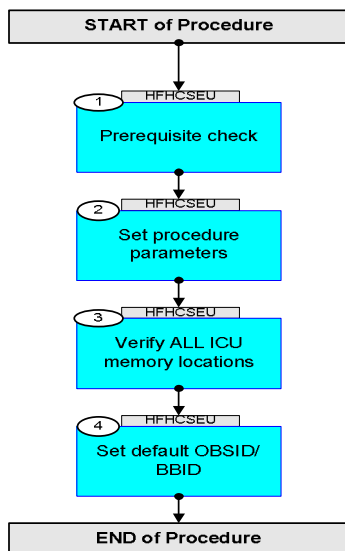
Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
24/08/2010		1	Created	R. Biggins	
10/02/2011		2	Updated for software version 6.5.2	R. Biggins	
01/06/2011	3.1	3	Updated for software version 6.5.3	R. Biggins	

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Procedure Flowchart Overview



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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
Beginning of Procedure				
TC Seq. Name : HFCSEU (ICU memory check) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
1		Prerequisite check		Next Step: 2
1.1		HSC/ICC input		<input type="checkbox"/>
		Verify that the HSC/ICC has supplied a valid OBSID value: OBS_ID = 0xnnnn nnnn		
2		Set procedure parameters		Next Step: 3
	ET=+ UT=+00.00.00	HIFI_Set_OBS_ID Command Parameter(s) : HIFI_BB_ID HP001197 HIFI_OBS_ID HP000197 TC Control Flags : GBM IL DSE --Y -- -- Subsch. ID : 70 Det. descr. : Set Observation-ID and Building-Block-ID	HC014289	
		Verify Telemetry BB_ID_per_hk HM004190	= 1EF20001 <hex>	AND=ZAZ9C999
		Verify Telemetry OBS_ID_per_hk HM003190	OBS_ID	AND=ZAZ9C999
3		Verify ALL ICU memory locations		Next Step: 4

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	ET=+ UT=+00.00.00	HIFI_Set_OBS_ID HIFI_Set_OBS_ID Command Parameter(s) : HIFI_BB_ID HP001197 HIFI_OBS_ID HP000197 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 70 Det. descr. : Set Observation-ID and Building-Block-ID	HC014289 1EFB0001 <hex> OBS_ID	
	ET=+ UT=+00.00.01	HIFI_Housekeeping_off HIFI_Housekeeping_off Subsch. ID : 70 Det. descr. : Disables the periodic Housekeeping generation	HC006289	
		NOTE: Verification of the following memory areas should be done by HIFI		
	ET=+ UT=+00.00.05	Check PM-low HIFI_check_PM_memory Command Parameter(s) : HIF_check_start HP231197 HIF_check_end HP232197 HIF_check_crc HP233197 Subsch. ID : 70 Det. descr. : Compares checksum of specified PM memory with specified value	HC169289 5600 <hex> 18E1E <hex> 6260 <hex>	
		Memory check is correct if TM(1,7) generated		
	ET=+ UT=+00.00.05	Check PM-high HIFI_check_PM_memory Command Parameter(s) : HIF_check_start HP231197 HIF_check_end HP232197 HIF_check_crc HP233197 Subsch. ID : 70 Det. descr. : Compares checksum of specified PM memory with specified value	HC169289 455FF <hex> 58E1D <hex> 6260 <hex>	
		Memory check is correct if TM(1,7) generated		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch												
	ET=+ UT=+00.00.05	<p>Check BSW</p> <p style="text-align: right;">HIFI_check_PM_memory</p> <p>Command Parameter(s) :</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">HIF_check_start</td> <td style="width: 20%;">HP231197</td> <td style="width: 20%;">100 <hex></td> <td style="width: 30%;"></td> </tr> <tr> <td>HIF_check_end</td> <td>HP232197</td> <td>1554 <hex></td> <td></td> </tr> <tr> <td>HIF_check_crc</td> <td>HP233197</td> <td>2AE0 <hex></td> <td></td> </tr> </table> <p>Subsch. ID : 70 Det. descr. : Compares checksum of specified PM memory with specified value</p>	HIF_check_start	HP231197	100 <hex>		HIF_check_end	HP232197	1554 <hex>		HIF_check_crc	HP233197	2AE0 <hex>		HC169289	
HIF_check_start	HP231197	100 <hex>														
HIF_check_end	HP232197	1554 <hex>														
HIF_check_crc	HP233197	2AE0 <hex>														
		Memory check is correct if TM(1,7) generated														
	ET=+ UT=+00.00.05	<p>Check DRAM location 1</p> <p style="text-align: right;">HIFI_check_memory</p> <p>Command Parameter(s) :</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">OBS_mem_id</td> <td style="width: 20%;">HP002197</td> <td style="width: 20%;">DM</td> <td style="width: 30%;"></td> </tr> <tr> <td>OBS_mem_start</td> <td>HP003197</td> <td>B4C3 <hex></td> <td></td> </tr> <tr> <td>OBS_mem_length</td> <td>HP004197</td> <td>300 <hex></td> <td></td> </tr> </table> <p>Subsch. ID : 70 Det. descr. : Requests CRC of any memory (LCU-ICU ICU-PRAM, ICU-DRAM)</p>	OBS_mem_id	HP002197	DM		OBS_mem_start	HP003197	B4C3 <hex>		OBS_mem_length	HP004197	300 <hex>		HC005289	
OBS_mem_id	HP002197	DM														
OBS_mem_start	HP003197	B4C3 <hex>														
OBS_mem_length	HP004197	300 <hex>														
		Expected checksum is: 24537 <dec>														
	ET=+ UT=+00.00.05	<p>Check DRAM location 2</p> <p style="text-align: right;">HIFI_check_memory</p> <p>Command Parameter(s) :</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">OBS_mem_id</td> <td style="width: 20%;">HP002197</td> <td style="width: 20%;">DM</td> <td style="width: 30%;"></td> </tr> <tr> <td>OBS_mem_start</td> <td>HP003197</td> <td>DFB1 <hex></td> <td></td> </tr> <tr> <td>OBS_mem_length</td> <td>HP004197</td> <td>291 <hex></td> <td></td> </tr> </table> <p>Subsch. ID : 70 Det. descr. : Requests CRC of any memory (LCU-ICU ICU-PRAM, ICU-DRAM)</p>	OBS_mem_id	HP002197	DM		OBS_mem_start	HP003197	DFB1 <hex>		OBS_mem_length	HP004197	291 <hex>		HC005289	
OBS_mem_id	HP002197	DM														
OBS_mem_start	HP003197	DFB1 <hex>														
OBS_mem_length	HP004197	291 <hex>														
		Expected checksum is: 53645 <dec>														
	ET=+ UT=+00.00.05	<p>Check DRAM location 3</p> <p style="text-align: right;">HIFI_check_memory</p> <p>Command Parameter(s) :</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">OBS_mem_id</td> <td style="width: 20%;">HP002197</td> <td style="width: 20%;">DM</td> <td style="width: 30%;"></td> </tr> <tr> <td>OBS_mem_start</td> <td>HP003197</td> <td>BFB1 <hex></td> <td></td> </tr> <tr> <td>OBS_mem_length</td> <td>HP004197</td> <td>8 <hex></td> <td></td> </tr> </table> <p>Subsch. ID : 70 Det. descr. : Requests CRC of any memory (LCU-ICU ICU-PRAM, ICU-DRAM)</p>	OBS_mem_id	HP002197	DM		OBS_mem_start	HP003197	BFB1 <hex>		OBS_mem_length	HP004197	8 <hex>		HC005289	
OBS_mem_id	HP002197	DM														
OBS_mem_start	HP003197	BFB1 <hex>														
OBS_mem_length	HP004197	8 <hex>														
		Expected checksum is: 15773 <dec>														

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	ET=+ UT=+00.00.05	Check EEPROM location 1 HIFI_check_memory Command Parameter(s) : OBS_mem_id HP002197 OBS_mem_start HP003197 OBS_mem_length HP004197 Subsch. ID : 70 Det. descr. : Requests CRC of any memory (LCU-ICU ICU-PRAM, ICU-DRAM)	HC005289 EEPROM 0 <hex> (Def) FFFF <hex>	
		Expected checksum is: 63760 <dec>		
	ET=+ UT=+00.00.05	Check EEPROM location 2 HIFI_check_memory Command Parameter(s) : OBS_mem_id HP002197 OBS_mem_start HP003197 OBS_mem_length HP004197 Subsch. ID : 70 Det. descr. : Requests CRC of any memory (LCU-ICU ICU-PRAM, ICU-DRAM)	HC005289 EEPROM FFFF <hex> FFFF <hex>	
		Expected checksum is: 57987 <dec>		
	ET=+ UT=+00.00.05	Check EEPROM location 3 HIFI_check_memory Command Parameter(s) : OBS_mem_id HP002197 OBS_mem_start HP003197 OBS_mem_length HP004197 Subsch. ID : 70 Det. descr. : Requests CRC of any memory (LCU-ICU ICU-PRAM, ICU-DRAM)	HC005289 EEPROM 1FFFE <hex> FFFF <hex>	
		Expected checksum is: 28444 <dec>		
	ET=+ UT=+00.00.05	Check EEPROM location 4 HIFI_check_memory Command Parameter(s) : OBS_mem_id HP002197 OBS_mem_start HP003197 OBS_mem_length HP004197 Subsch. ID : 70 Det. descr. : Requests CRC of any memory (LCU-ICU ICU-PRAM, ICU-DRAM)	HC005289 EEPROM 2FFFD <hex> FFFF <hex>	
		Expected checksum is: 30938 <dec>		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+ UT=+00.00.05	Check EEPROM location 5 HIFI_check_memory Command Parameter(s) : OBS_mem_id HP002197 OBS_mem_start HP003197 OBS_mem_length HP004197 Subsch. ID : 70 Det. descr. : Requests CRC of any memory (LCU-ICU ICU-PRAM, ICU-DRAM)	HC005289 EEPROM 3FFFC <hex> 4 <hex>	
		Expected checksum is: 27146 <dec>		
	ET=+ UT=+00.00.05	HIFI_Housekeeping_on HIFI_Housekeeping_on Command Parameter(s) : HIF_HK_rate HP012197 HIF_FCU_S HP006197 HIF_LCU_S HP007197 HIF_WBSV_S HP009197 HIF_WBSH_S HP008197 HIF_HRSV_S HP011197 HIF_HRSH_S HP010197 Subsch. ID : 70 Det. descr. : Sets periodic housekeeping packet generation period	HC016289 1_pkt_per_3_s ON (Def) ON (Def) ON (Def) ON (Def) ON (Def) ON (Def)	
4		Set default OBSID/BBID		Next Step: END
	ET=+ UT=+00.00.01	HIFI_Set_OBS_ID HIFI_Set_OBS_ID Command Parameter(s) : HIFI_BB_ID HP001197 HIFI_OBS_ID HP000197 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 70 Det. descr. : Set Observation-ID and Building-Block-ID	HC014289 0 <hex> (Def) 0 <hex> (Def)	
		Verify Telemetry BB_ID_per_hk HM004190	= 0 <hex>	AND=ZAZ9C999
		Verify Telemetry OBS_ID_per_hk HM003190	= 0 <hex>	AND=ZAZ9C999
End of Procedure				