Delete OBCP
File: H_FCP_OBS_7102.xls
Author: lstefanov-hp

Procedure Summary

Objectives

This Herschel OBSM nominal procedure is used to delete an OBCP stored in SSMM on-board. The corresponding entries are removed from both on-board (when TC(18,2) is executed) and ground (using OCL compiler command) Symbol Tables.

Summary of Constraints

An OBCP can be deleted only if its status is 'Stopped.'

The ASW function "OBCP Management" is responsible of deleting OBCPs. No OBCP can be deleted when the function is Stopped.

Default status of the function: "Stopped".

When the function is stopped, it does not accept any other telecommands than the:
- Start Function TC(8,1,107);
- Report Function Status TC(8,5,107).

Thus, if the function is stopped this procedure cannot be executed.

Spacecraft Configuration

Start of Procedure

CDMU in Nominal configuration, that is:
- PM A or B ON (nominally A)
- TM Encoder/OBT A or B active (nominally A)
- RM A and B enabled
- MM A and B ON

"OBCP Management" function Stopped or Running

End of Procedure

CDMU in Nominal configuration:
- PM A or B ON (nominally A)
- TM Encoder/OBT A or B active (nominally A)
- RM A and B enabled
- MM A and B ON

"OBCP Management" function Running
Selected OBCP deleted

Reference File(s)

Input Command Sequences

Output Command Sequences

OFCP7102

Referenced Displays

ANDs **GRDs** **SLDs**

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ZAZAI999 (None)
ZAZ4Q999

Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
18/06/08		1	Created	lstefanov-hp	
18/06/08	1	2	1. corrected typo in TC Sequence Name	lstefanov-hp	
01/04/09		3	1. steps 2, 5, 7 and 11 updated in line with DB for CDMS OBS v.3.8.2 2. steps 4 and 10 updated: TC Control Flags changed to Enable PTVs and EV	lstefanov-hp	
13/04/09	2.3	4	1. step 8.2 updated: call to proc. H_FCP_DHS_3046 replaced by call to H_FCP_DHS_3042	lstefanov-hp	

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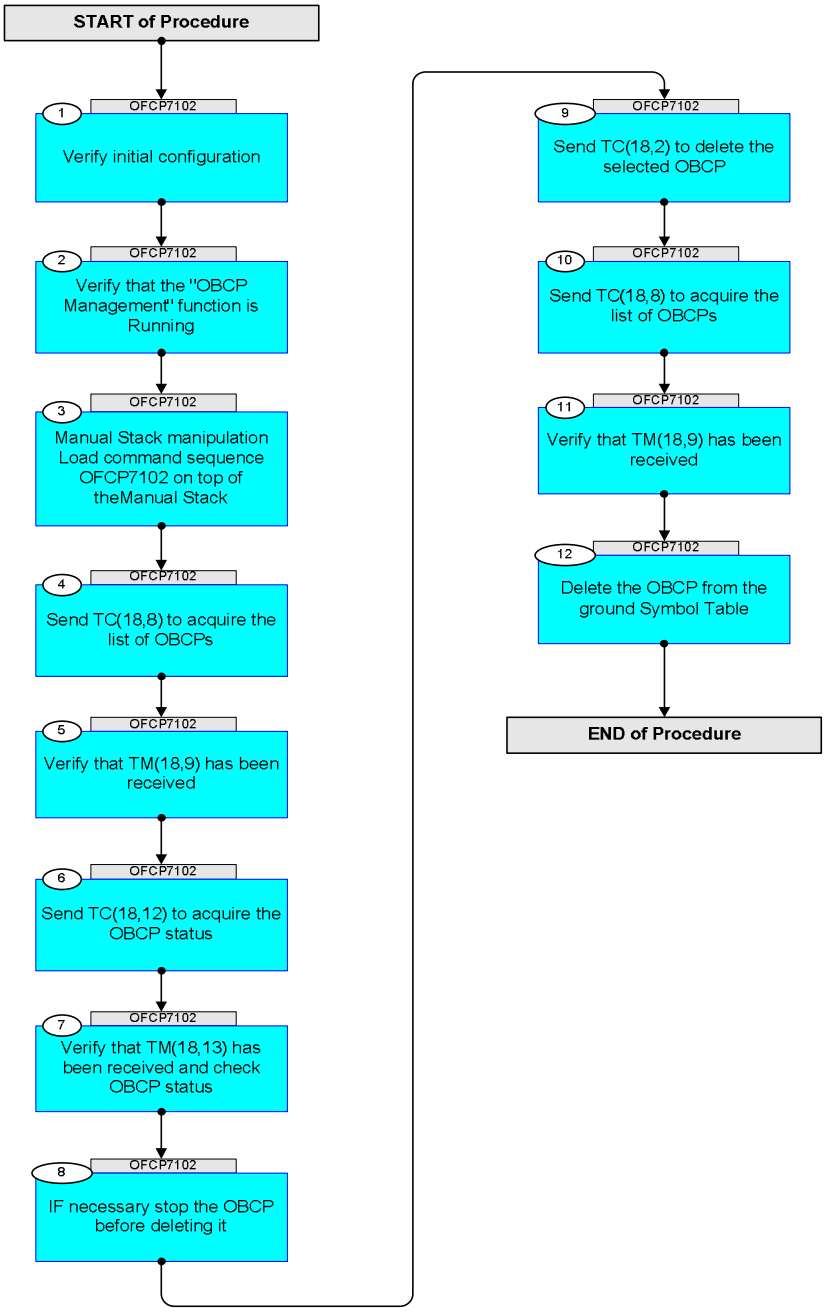
Procedure Flowchart Overview



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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
Beginning of Procedure					
	OFCP7102	*TC Seq. Name :* OFCP7102 (DeleteObcp) Delete OBCP *TimeTag Type: N* *Sub Schedule ID:*			
1		Verify initial configuration		Next Step: 2	
		Check CDMU Nominal configuration: - PM A or B ON (nominally A) - TM Encoder/OBT A or B active (nominally A) - RM A and B enabled - MM A and B ON			
2		Verify that the "OBCP Management" function is Running		Next Step: 3	
		Verify Telemetry **ObcpSts DEH36170**	**= Running**	AND=ZAZAI999	
2.1		IF "OBCP Management" function NOT Running THEN Start the OBCP function via H_FCP_DHS_3046			
		H_FCP_DHS_3046 Start or stop the whole OBCP function			
3		Manual Stack manipulation Load command sequence OFCP7102 on top of theManual Stack		Next Step: 4	
3.1		Sequence data FP: ObcpId TT: N/A			
		Set the value of the Formal Parameter **ObcpId** to the value of the ID of the selected OBCP.			
4		Send TC(18,8) to acquire the list of OBCPs		Next Step: 5	
		Uplink TC with **ARM GO**			

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
		Execute Telecommand **ReptOnBoardObcps** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : TEMPLATE Report list of on-board OBCPs TC(18,8)	**DCT76170**	**TC**	
		Note: Following successful execution of TC(18,8), a report Type **(18,9)** is generated.			
5		Verify that TM(18,9) has been received		Next Step: 6	
		Verify Packet Reception TM 18-9 List of on-board Procedures Packet Mnemonic : OnBrdObcpLst APID : 16 Type : 18 Subtype : 9 PI1 : PI2 :			
		Verify Telemetry **N_Repetition** **DE014170**			
		The following parameter is repeated N times			
		Verify Telemetry **ProcedureID** **DE293170**		(None)	
6		Send TC(18,12) to acquire the OBCP status		Next Step: 7	
		Note: The OBCP cannot be deleted if its status is 'Active' or 'Suspended'. In this case, the deletion request is ignored and the OBCP has to be stopped before sending TC(18,2).			
		Uplink TC with **ARM GO**			
		Execute Telecommand **ReptObcpStatus** *Command Parameter(s) :* **ObcpId** **DH135170** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : TEMPLATE Report OBCP Status and Parameters TC(18,12)	**DCT78170** **ObcpId**	**TC**	
		Note: Following successful execution of TC(18,12), a report Type **(18,13)** is generated.			
7		Verify that TM(18,13) has been received and check OBCP status		Next Step: 8	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
		Verify Packet Reception TM 18-13 OBCP Status Report Packet Mnemonic : ObcpStsRpt APID : 16 Type : 18 Subtype : 13 PI1 : PI2 :			
7.1		Check: - OBCP status			
		Note: Following TM checks assume that the OBCP status is 'Stopped'			
		Verify Telemetry **ProcedureID DE293170**	**= ObcpId**	AND=ZAZ4Q999	
		Verify Telemetry **OBCPStatus DEZA8170**	**= Stopped**	(None)	
8		IF necessary stop the OBCP before deleting it		Next Step: 9	
8.1		IF OBCP status not 'Stopped'			
		Verify Telemetry **OBCPStatus DEZA8170**	**<> Stopped**	(None)	
8.2		THEN Stop the selected OBCP			
		Execute procedure **H_FCP_DHS_3042**			
		H_FCP_DHS_3042 Start or stop an OBCP OBCP_ID ObcpId ObcpId			
9		Send TC(18,2) to delete the selected OBCP		Next Step: 10	
		Note: When this request is received, the specified on-board procedure is deleted from the list of loaded on-board procedures and the area occupied by the procedure code is cleared.			

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
		Execute Telecommand **DeleteObcp** *Command Parameter(s) :* **ObcpId** **DH135170** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : TEMPLATE Delete OBCP TC(18,2)	**DCT70170** **ObcpId**	**TC**	
10		Send TC(18,8) to acquire the list of OBCPs		Next Step: 11	
		Uplink TC with **ARM GO**			
		Execute Telecommand **ReptOnBoardObcps** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : TEMPLATE Report list of on-board OBCPs TC(18,8)	**DCT76170**	**TC**	
		Note: Following successful execution of TC(18,8), a report Type **(18,9)** is generated.			
11		Verify that TM(18,9) has been received		Next Step: 12	
		Verify Packet Reception TM 18-9 List of on-board Procedures Packet Mnemonic : OnBrdObcpLst APID : 16 Type : 18 Subtype : 9 PI1 : PI2 :			
		Verify Telemetry **N_Repetition** **DE014170**			
		The following parameter is repeated N times			
		Verify Telemetry **ProcedureID** **DE293170**		(None)	
12		Delete the OBCP from the ground Symbol Table		Next Step: END	
		Note: The Symbol Table allows dynamically linking at runtime an OBCP to the RTL functions and OBCPs that it calls/starts.			

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		Note: Two Symbol Tables are separately maintained: - One on-board, updated by the interpreter whenever an OBCP is loaded/deleted - One on-ground, updated by the compiler whenever an OBCP is compiled/deleted **It is user responsibility that ground and on-board Symbol Tables are consistent.**			
		Execute **OCL compiler command** ***ocl -del ObcpId*** on the OBCP Development Environment (**OBCP DE**) machine where ObcpId is the value of the ID of the OBCP deleted via TC(18,2).			
		End of Sequence			
		End of Procedure			