Enable/Disable write to CDMU CPU and COCOS registers or EEPROM
File: C_CRP_OBS_1100.xls
Author: Liviu Stefanov

Procedure Summary

Objectives

This Herschel and Planck common OBSM contingency procedure is used to Enable or Disable the write access to the CDMU CPU and COCOS registers or EEPROM. The write access via TC(6,2) or TC(8,4,7,1) is enabled/disabled.

Note: The write access to CDMU ASW/BSW code and constants can be Enabled/Disabled using procedure C_CRP_OBS_1102.

Summary of Constraints

n/a

Spacecraft Configuration

Start of Procedure

CDMU in operational mode
- Write access to CDMU CPU and COCOS registers or EEPROM Enabled or Disabled

End of Procedure

CDMU in operational mode
- Write access to CDMU CPU and COCOS registers or EEPROM Disabled or Enabled

Reference File(s)

Input Command Sequences

Output Command Sequences

OCRP110A
OCRP110B
OCRP110C
OCRP110D

Referenced Displays

ANDs **GRDs** **SLDs**
ZAD51999

Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
30/01/08	1	1	Created	lstefanov-hp	

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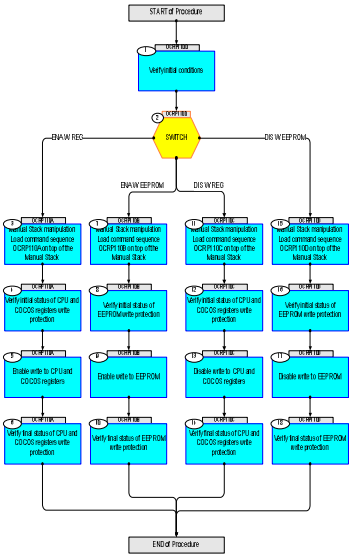
Procedure Flowchart Overview



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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
		Beginning of Procedure			
	OCRP1100	*TC Seq. Name :* OCRP1100 (ENA/DIS W EEPROM/REG) Enable/Disable write to CDMU CPU and COCOS registers or EEPROM *TimeTag Type:* *Sub Schedule ID:*			
1		Verify initial conditions		Next Step: 2	
		Check: - CDMU in operational mode - ENA/DIS status of write access to CDMU CPU and COCOS registers and EEPROM			
1.1		Check CDMU in operational mode			
1.2		Check write protection status			
		Note: Note that the parameters CPU/COCOS and EEPROM write protection status (doughters of **DID_BSW_MEM_ACCESS**) are part of the **default CDMU diagnostic packet** (**BSW1**); thus to acquire these parameters the packet **must be enabled**.			
		Note: Following TM check assumes **write** access to CPU and COCOS registers and EEPROM is **Disabled**.			
		Verify Telemetry **CpuCocosWrtProt** **DEL0G160**	**= ENABLED**	AND=ZAD51999	
		Verify Telemetry **EEPromWriteProt** **DEL0J160**	**= ENABLED**	AND=ZAD51999	
2		SWITCH type: [Switch]		Next Step: ENA W EEPROM 7 DIS W REG 11 ENA W REG 3 DIS W EEPROM 15	
		End of Sequence			
	OCRP110A	*TC Seq. Name :* OCRP110A (ENA W CDMU REGISTERS) Enable write to CDMU CPU and COCOS registers *TimeTag Type: N* *Sub Schedule ID:*			

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
3		Manual Stack manipulation Load command sequence OCRP110A on top of the Manual Stack		Next Step: 4	
3.1		Sequence data FP: N/A TT: N/A			
4		Verify initial status of CPU and COCOS registers write protection		Next Step: 5	
		Note: Protection Enabled = Write access Disabled Protection Disabled = Write access Enabled			
		Note: Note that the parameter CPU/COCOS write protection status (doughter of **DID_BSW_MEM_ACCESS**) is part of the **default CDMU diagnostic packet** (**BSW1**); thus to acquire this parameter the packet **must be enabled**.			
		Verify Telemetry **CpuCocosWrtProt DEL0G160**	**= ENABLED**	AND=ZAD51999	
5		Enable write to CPU and COCOS registers		Next Step: 6	
		Uplink TC with **ARM GO**			
		Execute Telecommand **EnableRegWrite**	**DC803180**	**TC**	
		TC Control Flags : **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : Enable write to CPU and COCOS register			
6		Verify final status of CPU and COCOS registers write protection		Next Step: END	
		Note: Protection Enabled = Write access Disabled Protection Disabled = Write access Enabled			
		Note: Note that the parameter CPU/COCOS write protection status (doughter of **DID_BSW_MEM_ACCESS**) is part of the **default CDMU diagnostic packet** (**BSW1**); thus to acquire this parameter the packet **must be enabled**.			
		Verify Telemetry **CpuCocosWrtProt DEL0G160**	**= DISABLED**	AND=ZAD51999	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
		End of Sequence			
	OCRP110B	*TC Seq. Name :* OCRP110B (ENA W CDMU EEPROM) Enable write to CDMU EEPROM *TimeTag Type: N* *Sub Schedule ID:* □			
7		Manual Stack manipulation Load command sequence OCRP110B on top of the Manual Stack		Next Step: 8	
7.1		Sequence data FP: N/A TT: N/A			
8		Verify initial status of EEPROM write protection		Next Step: 9	
		Note: Protection Enabled = Write access Disabled Protection Disabled = Write access Enabled			
		Note: Note that the parameter EEPROM write protection status (doughter of **DID_BSW_MEM_ACCESS**) is part of the **default CDMU diagnostic packet** (**BSW1**); thus to acquire this parameter the packet **must be enabled**.			
		Verify Telemetry **EEPromWriteProt** **DEL0J160**	**= ENABLED**	AND=ZAD51999	
9		Enable write to EEPROM		Next Step: 10	
		Uplink TC with **ARM GO**			
		Execute Telecommand **EnableEEWrite** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : Enable write to EEPROM	**DC806180**	**TC**	
10		Verify final status of EEPROM write protection		Next Step: END	
		Note: Protection Enabled = Write access Disabled Protection Disabled = Write access Enabled			

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
		Note: Note that the parameter EEPROM write protection status (doughter of **DID_BSW_MEM_ACCESS**) is part of the **default CDMU diagnostic packet** (**BSW1**); thus to acquire this parameter the packet **must be enabled**.			
		Verify Telemetry **EEPromWriteProt** **DEL0J160**	**= DISABLED**	AND=ZAD51999	
		End of Sequence			
	OCRP110C	*TC Seq. Name :* OCRP110C (DIS W CDMU REGISTERS) Disable write to CDMU CPU and COCOS registers *TimeTag Type: N* *Sub Schedule ID:*			
11		Manual Stack manipulation Load command sequence OCRP110C on top of the Manual Stack		Next Step: 12	
11.1		Sequence data FP: N/A TT: N/A			
12		Verify initial status of CPU and COCOS registers write protection		Next Step: 13	
		Note: Protection Enabled = Write access Disabled Protection Disabled = Write access Enabled			
		Note: Note that the parameter CPU/COCOS write protection status (doughter of **DID_BSW_MEM_ACCESS**) is part of the **default CDMU diagnostic packet** (**BSW1**); thus to acquire this parameter the packet **must be enabled**.			
		Verify Telemetry **CpuCocosWrtProt** **DEL0G160**	**= DISABLED**	AND=ZAD51999	
13		Disable write to CPU and COCOS registers		Next Step: 14	
		Uplink TC with **ARM GO**			
		Execute Telecommand **DisableRegWrite** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : Disable write to CPU and COCOS register	**DC801180**	**TC**	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
14		Verify final status of CPU and COCOS registers write protection		Next Step: END	
		Note: Protection Enabled = Write access Disabled Protection Disabled = Write access Enabled			
		Note: Note that the parameter CPU/COCOS write protection status (doughter of **DID_BSW_MEM_ACCESS**) is part of the **default CDMU diagnostic packet** (**BSW1**); thus to acquire this parameter the packet **must be enabled**.			
		Verify Telemetry **CpuCocosWrtProt** **DEL0G160**	**= ENABLED**	AND=ZAD51999	
		End of Sequence			
	OCRP110D	*TC Seq. Name :* OCRP110D (DIS W CDMU EEPROM) Diable write to CDMU EEPROM *TimeTag Type: N* *Sub Schedule ID:*			
15		Manual Stack manipulation Load command sequence OCRP110D on top of the Manual Stack		Next Step: 16	
15.1		Sequence data FP: N/A TT: N/A			
16		Verify initial status of EEPROM write protection		Next Step: 17	
		Note: Protection Enabled = Write access Disabled Protection Disabled = Write access Enabled			
		Note: Note that the parameter EEPROM write protection status (doughter of **DID_BSW_MEM_ACCESS**) is part of the **default CDMU diagnostic packet** (**BSW1**); thus to acquire this parameter the packet **must be enabled**.			
		Verify Telemetry **EEPromWriteProt** **DEL0J160**	**= DISABLED**	AND=ZAD51999	
17		Disable write to EEPROM		Next Step: 18	
		Uplink TC with **ARM GO**			

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
		Execute Telecommand **DisableEEWrite** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : Disable write to EEPROM	**DC805180**	**TC**	
18		Verify final status of EEPROM write protection		Next Step: END	
		Note: Protection Enabled = Write access Disabled Protection Disabled = Write access Enabled			
		Note: Note that the parameter EEPROM write protection status (doughter of **DID_BSW_MEM_ACCESS**) is part of the **default CDMU diagnostic packet** (**BSW1**); thus to acquire this parameter the packet **must be enabled**.			
		Verify Telemetry **EEPromWriteProt** **DEL0J160**	**= ENABLED**	AND=ZAD51999	
		End of Sequence			
		End of Procedure			