Check memory area
File: H_CRP_DHS_3024.xls
Author: S. Manganelli

Procedure Summary

Objectives

This procedure describes the steps needed to check the following memory areas.
- CPU RAM
- Communication RAM
- PM PROM
- PM EEPROM

SGM is checked via dedicated procedures.

Summary of Constraints

Memory areas are Checked through TC(6,9); this TC will be delayed when there is an ongoing:
- TC(6,2) Load Memory Using Absolute Addresses
- TC(6,5) Dump Memory Using Absolute Addresses
- TC(6,9) Check Memory Using Absolute Addresses
- TC(8,4,1,1) Copy Memory

Spacecraft Configuration

Start of Procedure

n/a

End of Procedure

n/a

Reference File(s)

Input Command Sequences

Output Command Sequences

HRD3024

Referenced Displays

ANDs **GRDs** **SLDs**

Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
29/11/08	2	1	Created	S. Manganelli	

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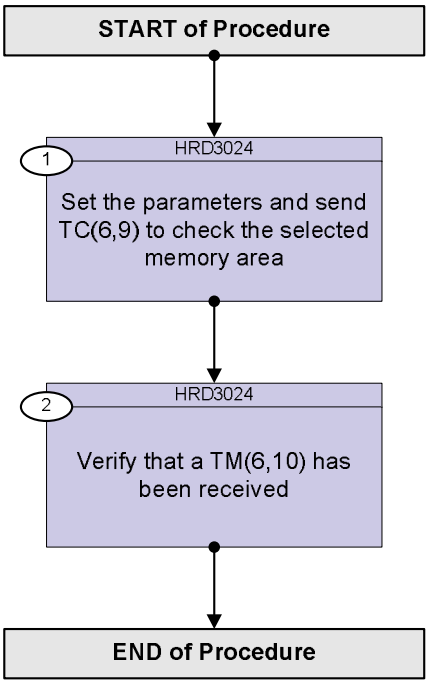
Procedure Flowchart Overview



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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Beginning of Procedure		
		TC Seq. Name :HRD3024 (Check memory area) *TimeTag Type: N* *Sub Schedule ID:* <dec> *Formal Parameter List :* <hex> Memory_ID MEM_ID= <dec> Start_Address STARTADD= N LENGTH=		
1		*Set the parameters and send TC(6,9) to check the selected memory area*		Next Step: 2
		When the CDMU receives this request it shall read and compute the checksum value of the indicated area of the memory using the CRC checksum algorithm. It then generates a report containing the checksum value computed.		
		In the TC(6,9) it is necessary to set the following parameters: **- Memory ID: identifier of the memory block of the on-board user which data shall be checked.** **- Start Address: start address (in SAUs, with the count starting from zero) within the memory block for dta to be checked.** **- N: number of SAUs on which the CRC checksum algorithm shall be applied.**		
		The fields Memory ID and Start Address are treated as one 32-bit field where the 16 least significant bits of the address is stored in Start Address and the 16 most significant bit in the Memory ID field.		
		WARNING: **The specified address range must not span over several types of memory.**		
		Execute Telecommand **ChkMem_AbsAdd** *Command Parameter(s) :* **Memory_ID DH003180** **Start_Address DH004180** **N DH105180** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : Check Memory Using Absolute Addresses	**DC603180** **MEM_ID** **STARTADD** **LENGTH**	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
2		*Verify that a TM(6,10) has been received*		Next Step: END
		Verify Packet Reception **Memory Check Report - Absolute Addresses** *Packet Details:* **APID:** **Type:** **Subtype:** **PI1:** **PI2:**	**MemChkRepAbs** **16** **6** **10**	
		Verify Packet Telemetry (Pkt = MemChkRepAbs) **Memory_ID** **DE060180**		(None)
		Verify Packet Telemetry (Pkt = MemChkRepAbs) **Start_Address** **DE061180**		(None)
		Verify Packet Telemetry (Pkt = MemChkRepAbs) **N** **DE062180**		(None)
		Verify Packet Telemetry (Pkt = MemChkRepAbs) **CheckSum** **DE064180**		(None)
		End of Procedure		