

Set the [TM generating TC] exe rate  
 File: H\_FCP\_DHS\_1032.xls  
 Author: S. Manganelli



## Procedure Summary

### Objectives

This procedure is used to modify the limit for how many execution slots may be used by TM generating TCs during a particular period. This limit is called the "TM generating TC rate" and TC(8,4,10,7) is used to switch between a high and a low TM generating TC rate:

- In high rate, the maximum number of execution slots used for TM generating TCs are TM\_GEN\_TC\_RATE\_HI\_VALUE per SW cycle.
- In low rate, the maximum number of execution slots used for TM generating TCs are 1 per TM\_GEN\_TC\_RATE\_LO\_VALUE SW cycles.

NOTE: The rate will be reset to high at each PM board reset.

For more information see the info sheet at end of procedure.

### Summary of Constraints

No execution constraint. Note that there is no TM to verify the current status, so only service 1 can be used.

### Spacecraft Configuration

#### Start of Procedure

Some TM generation TC rate

#### End of Procedure

Modified TM generation TC rate

### Reference File(s)

#### Input Command Sequences

#### Output Command Sequences

HFD1032B  
 HFD1032C

### Referenced Displays

ANDs GRDs SLDs

### Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
06/01/09		1	Created	S. Manganelli	
06/01/09		2	config control	S. Manganelli	
06/01/09		3		S. Manganelli	

Status : Version 5 - Unchanged  
 Last Checkin: 03/05/09

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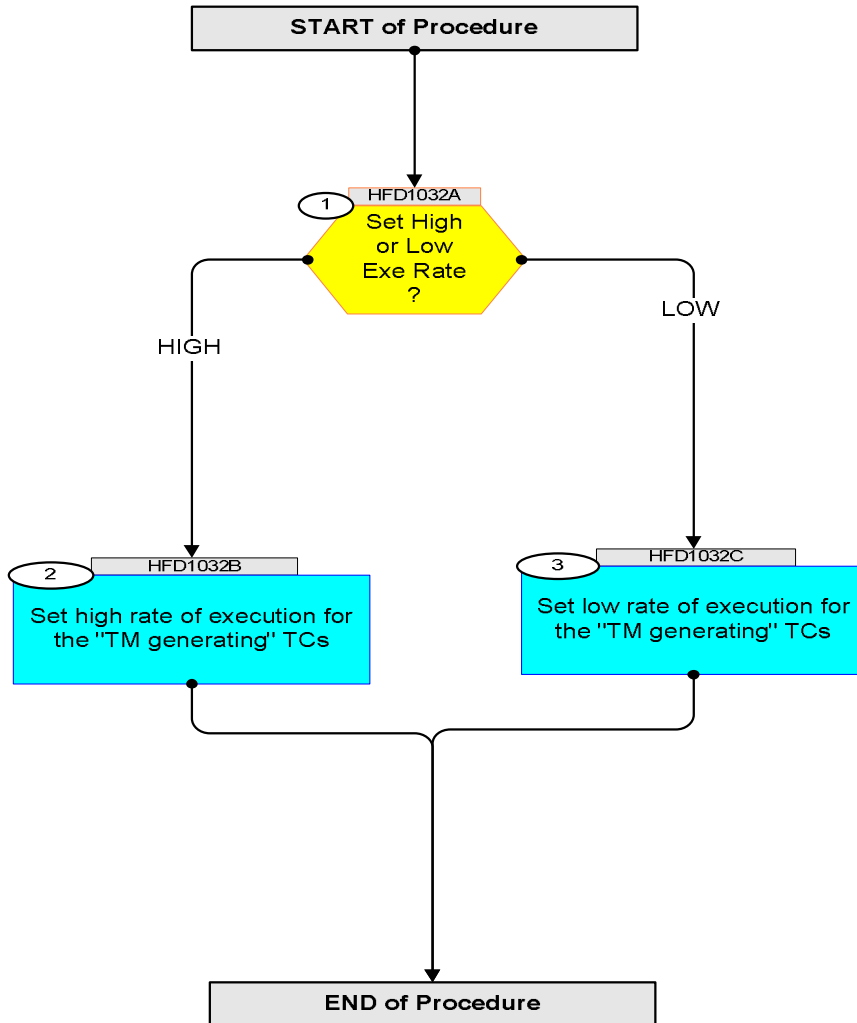


06/01/09	2	4	config control	S. Manganelli	
03/05/09	2.4	5	Comment added	S. Manganelli	

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### Procedure Flowchart Overview



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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch	AIT Comment
<b>Beginning of Procedure</b>					
HFD1032A TC Seq. Name :HFD1032A ( dummy ) TimeTag Type: Sub Schedule ID: <input type="checkbox"/>					
1		Set High or Low Exe Rate ? type: [Switch]		Next Step: HIGH 2 LOW 3	
End of Sequence					
HFD1032B TC Seq. Name :HFD1032B ( High ExeRate TMgenTC ) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>					
2		Set high rate of execution for the "TM generating" TCs		Next Step: END	
		Execute Telecommand <div style="text-align: right;"><b>HighTmGenTcRate</b></div> TC Control Flags : <div style="text-align: right;">GBM IL DSE --Y -- ---</div> Subsch. ID : 10 Det. descr. : Configure High TM Generating TC Rate	DC809180	TC	
End of Sequence					
HFD1032C TC Seq. Name :HFD1032C ( Low ExeRate TMgenTC ) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>					
3		Set low rate of execution for the "TM generating" TCs		Next Step: END	
		For example, this TC shall cause a <b>single</b> memory dump TM(6,6) to be generated <b>every about 4 seconds</b> . At normal rate we see about <b>4 or 5</b> memory dump TM(6,6) <b>every second</b> .			
		Execute Telecommand <div style="text-align: right;"><b>LowTmGenTcRate</b></div> TC Control Flags : <div style="text-align: right;">GBM IL DSE --Y -- ---</div> Subsch. ID : 10 Det. descr. : Configure Low TM Generating TC Rate	DC808180	TC	
End of Sequence					
<b>End of Procedure</b>					

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**INFO**

<b>Limited TM Generation</b>		
TCs that may generate any other TM than TM(1,x), TM(5,x), TM(3,25), TM(3,26), TM(8,7,4,20), TM(8,7,4,21) or TM(8,8) are defined as "TM generating TCs". If a TC is TM generating is determined from its Packet Type, Packet Subtype, Function ID and Activity ID only. (The parameters of the TC or the fact that some TCs only generate TMs in certain execution slots is not considered.) A list of all TM generating TCs is found in [CDMU-ICD §12.2] and [ACC-ICD §10.2].		
<b>CDMU LIST</b>		
TC(3,9) ReportHKPackDef		
TC(3,11) ReportDiagPackDef		
TC(6,5) DumpMem_AbsAddr		
TC(6,9) ChkMem_AbsAdd		
TC(8,4,2,2) DumpMassMem		
TC(8,4,2,3) ChkMassMem		
TC(8,4,3,3) ReportPktStrAlloc		
TC(8,4,4,2) DumpSREMMem		
TC(8,4,4,7) GetSREMReg		
TC(8,4,6,5) ReportSCBP		
TC(8,4,10,6) ReportTcRoutingFilter		
TC(14,3) ReportEnabledTm		
TC(14,6) RepDownlinkTMStorage		
TC(15,5) ReportStorageSelDef		
TC(15,12) ReportCatSelPktStore		
TC(17,1) ConnectionTest		
<b>HPSDB values at OBSW 3_6_2</b>		
CONST_SDesc	CONST_LDesc	CONST_Value
TM_GEN_TC_RATE_HI	Maximum number of TM generating TCs executed per cycle at high rate	<b>1</b>
TM_GEN_TC_RATE_LO	Minimum number of cycles between execution of TM generating TCs at low rate	<b>16</b>