

Enable or disable TC routing to an APID
 File: H_FCP_DHS_3056.xls
 Author: S. Manganelli



Procedure Summary

Objectives

This procedure describes the steps needed to enable or disable routing of TC packets to a particular APID from a particular source.

Summary of Constraints

Default state for all TCs is: "Enabled".

For TC(8,4,10,5) to CDMU the routing is never disabled.

Note that the enable/disable of the TC routing towards an APID could also affect the behaviour of the OBCPs.

Spacecraft Configuration

Start of Procedure

- CDMU in default 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

End of Procedure

- CDMU in default 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

Reference File(s)

Input Command Sequences

Output Command Sequences

HFD3056

Referenced Displays

ANDs GRDs SLDs
 (None)

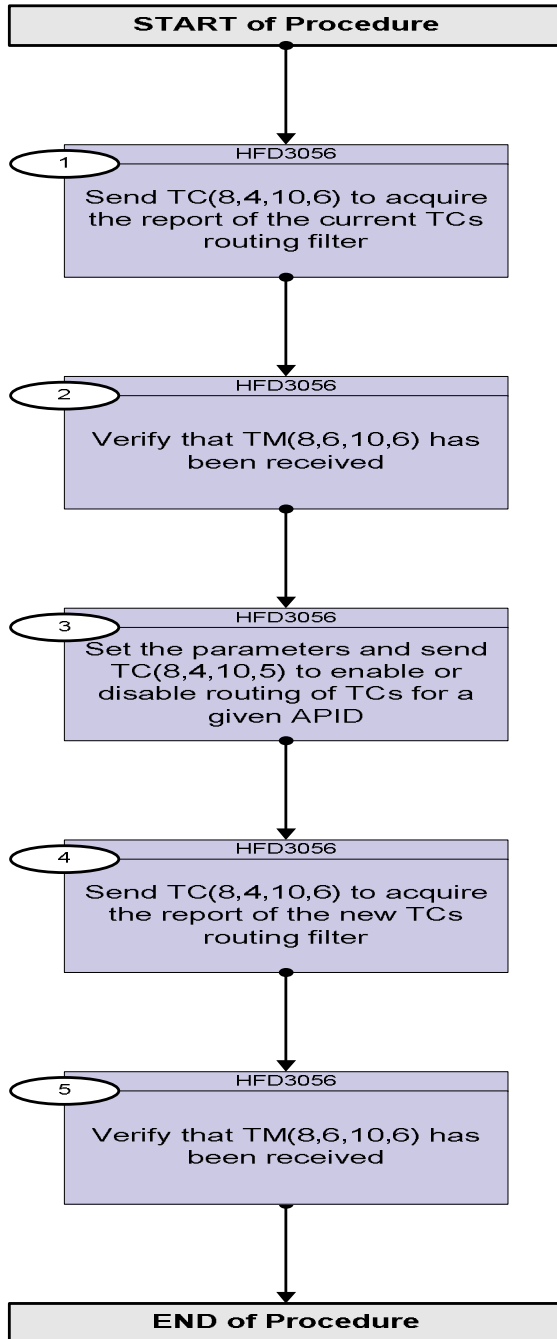
Configuration Control Information

| DATE | FOP ISSUE | VERSION | MODIFICATION DESCRIPTION | AUTHOR | SPR REF |
|----------|-----------|---------|----------------------------------|---------------|---------|
| 06/11/07 | | 1 | Created | cmevi-hp | |
| 10/06/08 | 1 | 2 | TC Flag and Seq Properly changed | S. Manganelli | |
| 11/12/08 | 2 | 3 | Checked against OBSW 3_6_2 | 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 :HFD3056 (TC routing to APID) | | | | |
| TimeTag Type: N Sub Schedule ID: □ | | | | |
| 1 | | Send TC(8,4,10,6) to acquire the report of the current TCs routing filter | | Next Step: 2 |
| | | When this TC is received, a TM(8,6,10,6) is generated. | | |
| | | Execute Telecommand ReportTcRoutingFilter TC Control Flags : Subsch. ID : 10 Det. descr. : Report TC Routing Filter | DC807180 GBM IL DSE --Y -- --- | |
| 2 | | Verify that TM(8,6,10,6) has been received | | Next Step: 3 |
| | | Verify Packet Reception TC Routing Filter Report Packet Details: | (8,6)-0802 APID: 16 Type: 8 Subtype: 6 PI1: 2566 PI2: 41 | |
| | | Verify Telemetry FUN DE001161 | | (None) |
| | | Verify Telemetry ACT DE002161 | | (None) |
| | | Verify Telemetry SID DE003161 | | (None) |
| | | Verify Telemetry N DE009161 | | (None) |
| | | The following parameters are repeated N times | | |
| | | Verify Telemetry TC_APIID DE010161 | | (None) |
| | | Verify Telemetry TC_SRC DE011161 | | (None) |
| | | Verify Telemetry EOD DE012161 | | (None) |

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| Step No. | Time | Activity/Remarks | TC/TLM | Display/ Branch | | | | | | | | | | | | | | | | |
|----------|------------|---|---------|-------------------|----------|------------|----------|----------|---------|----------|-----|----------|---------|------|--|------------|----|------------|----------|--|
| 3 | | Set the parameters and send TC(8,4,10,5) to enable or disable routing of TCs for a given APID | | Next Step: 4 | | | | | | | | | | | | | | | | |
| | | <p>In the TC(8,4,10,5) it is necessary to set the following parameters:</p> <p><u>Destination APID of routed TCs</u></p> <p><u>Source of routed TCs</u></p> <p><u>Enable/Disable</u></p> | | | | | | | | | | | | | | | | | | |
| | | Note that TC(8,4,10,5) to CDMU are always enabled. | | | | | | | | | | | | | | | | | | |
| | | <p>Execute Telecommand</p> <p style="text-align: center;">EnableDisableTcRouting</p> <p>Command Parameter(s) :</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 30%; text-align: right;">TC_APID</td> <td style="width: 20%;">DH044161</td> <td style="width: 20%;">16 <dec></td> <td style="width: 30%;"></td> </tr> <tr> <td style="text-align: right;">TC_SRC</td> <td>DH045161</td> <td>1 <dec></td> <td></td> </tr> <tr> <td style="text-align: right;">EOD</td> <td>DH009161</td> <td>0 <dec></td> <td></td> </tr> </table> <p>TC Control Flags :</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 60%;"></td> <td style="text-align: right;">GBM IL DSE</td> </tr> <tr> <td></td> <td style="text-align: right;">--Y -- ---</td> </tr> </table> <p>Subsch. ID : 10 Det. descr. : Enable/Disable TC Routing</p> | TC_APID | DH044161 | 16 <dec> | | TC_SRC | DH045161 | 1 <dec> | | EOD | DH009161 | 0 <dec> | | | GBM IL DSE | | --Y -- --- | DC006161 | |
| TC_APID | DH044161 | 16 <dec> | | | | | | | | | | | | | | | | | | |
| TC_SRC | DH045161 | 1 <dec> | | | | | | | | | | | | | | | | | | |
| EOD | DH009161 | 0 <dec> | | | | | | | | | | | | | | | | | | |
| | GBM IL DSE | | | | | | | | | | | | | | | | | | | |
| | --Y -- --- | | | | | | | | | | | | | | | | | | | |
| 4 | | Send TC(8,4,10,6) to acquire the report of the new TCs routing filter | | Next Step: 5 | | | | | | | | | | | | | | | | |
| | | When this TC is received, a TM(8,6,10,6) is generated. | | | | | | | | | | | | | | | | | | |
| | | <p>Execute Telecommand</p> <p style="text-align: center;">ReportTcRoutingFilter</p> <p>TC Control Flags :</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 60%;"></td> <td style="text-align: right;">GBM IL DSE</td> </tr> <tr> <td></td> <td style="text-align: right;">--Y -- ---</td> </tr> </table> <p>Subsch. ID : 10 Det. descr. : Report TC Routing Filter</p> | | GBM IL DSE | | --Y -- --- | DC807180 | | | | | | | | | | | | | |
| | GBM IL DSE | | | | | | | | | | | | | | | | | | | |
| | --Y -- --- | | | | | | | | | | | | | | | | | | | |
| 5 | | Verify that TM(8,6,10,6) has been received | | Next Step: END | | | | | | | | | | | | | | | | |
| | | <p>Verify Packet Reception</p> <p style="text-align: center;">TC Routing Filter Report</p> <p>Packet Details:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;"></td> <td style="text-align: right;">APID:</td> <td style="width: 50%;">16</td> </tr> <tr> <td></td> <td style="text-align: right;">Type:</td> <td>8</td> </tr> <tr> <td></td> <td style="text-align: right;">Subtype:</td> <td>6</td> </tr> <tr> <td></td> <td style="text-align: right;">PI1:</td> <td>2566</td> </tr> <tr> <td></td> <td style="text-align: right;">PI2:</td> <td>41</td> </tr> </table> | | APID: | 16 | | Type: | 8 | | Subtype: | 6 | | PI1: | 2566 | | PI2: | 41 | (8,6)-0802 | | |
| | APID: | 16 | | | | | | | | | | | | | | | | | | |
| | Type: | 8 | | | | | | | | | | | | | | | | | | |
| | Subtype: | 6 | | | | | | | | | | | | | | | | | | |
| | PI1: | 2566 | | | | | | | | | | | | | | | | | | |
| | PI2: | 41 | | | | | | | | | | | | | | | | | | |
| | | <p>Verify Telemetry</p> <p style="text-align: center;">FUN DE001161</p> | | (None) | | | | | | | | | | | | | | | | |

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|-------------------------|------|--|--------|-----------------|
| | | Verify Telemetry ACT DE002161 | | (None) |
| | | Verify Telemetry SID DE003161 | | (None) |
| | | Verify Telemetry N DE009161 | | (None) |
| | | The following parameters are repeated N times | | |
| | | Verify Telemetry TC_APID DE010161 | | (None) |
| | | Verify Telemetry TC_SRC DE011161 | | (None) |
| | | Verify Telemetry EOD DE012161 | | (None) |
| End of Procedure | | | | |