
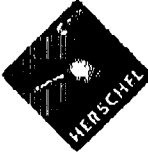



SPIRE-ALC-COM-001545

   <b>FAX</b>	<b>Alcatel Space Industries</b> <b>Herschel Planck project office</b> OS/M/H Fax + 33 4 92 92 30 10 Tel Secretary: + 33 4 92 92 30 88	Nb pages 2/4
	Date 19/02/03	Référence HP-ASP-LT-2727

Dear Sir and Madam,

In the frame of the CDR of PLM EGSE, a number of questions have been raised concerning PIPE protocol and EGSE ICD document.

In order to dispatch these points to all the parties involved, please find hereafter the clarifications/modifications discussed during this meeting. All these points will be included in the next issue of EGSE ICD (HP-1-ASPI-0121).

This fax closes the four referenced Als.

1. **Al#0198-57 "RC-ID field length and type : ASP to specify the characteristics of this field"**

**Al#0199-73 "ASP to verify the correct type/sub-type for RC packet and to update EGSE ICD accordingly"**

Service type (3,25) does not exist for TC (RC) (error in EGSE ICD).

In order to be compliant with PS-ICD, RC packets will use Service Type **8**, Sub-type **4** (*Perform Activity of Function*).

In this Service :

- 'Function ID' field will contain the RC identifier.
- 'Activity ID' field could be used freely by SCOE contractor (if needed).
- 'SID' field will indicate the presence of RC parameter(s) (if needed)

The format of RC\_ID parameter shall be 'enumerated 8 bits' (Parameter Code (PTC,PFC)=(2,8))

**Extract of PS-ICD :**

**Perform Activity of Function (8,4)**

Telecommand Packet, Application Data:

<b>Function ID</b>	<b>Activity ID</b>	<b>SID</b>	<b>Parameter</b>
<i>Enumerated 8 bits</i>	<i>Enumerated 8 bits</i>	<i>Enumerated 2 octets</i>	<i>Any</i>

←-----Optional-----→

**Function ID (FID):**

The Function ID, together with the Activity ID and the Application ID in the packet header, defines the exact actual activity of the function.

**Activity ID:**


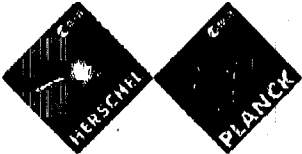
This indicates which activity of the specified Application Function is to be performed.

**SID:**

The Structure ID defines the presence and the fixed structure of the Parameter Field which follows. If SID = zero no parameters are sent.

**Parameter:**

A number of data structures compliant with the Structure Rules according to Appendix 6. The parameters are used to configure the specific instance of the execution of the Function.

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→ IFRQT-0200 will be re-worded as follow :


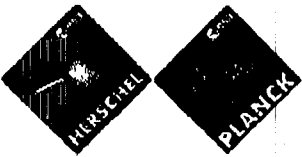
PIPE structure	Field Description	Size	Values	TYPE
Header	Refer to Table 4 page 27 with : Message ID = Refer to Table 11 page 34			
Body	Source Packet Header	Refer to Table 8 page 32		
	Data field header	Refer to Table 9 page 32 with : Packet Type = 0x08 Packet sub-type = 0x04		
	<b>Application data</b>	<b>Parameter list</b>		
	Function ID	1 byte	RC identifier	Enum
	Activity ID	1 byte		Enum
	SID	2 bytes		Enum
	Parameter	variable	Optional	Any
Packet error control	2 bytes	Not Used		integer

2. AI#0198-58

- **"Application SW stopping : it is confirmed that this must not be possible via remote command from CCS. Only local user can stop the SCOE running SW. ASP to update accordingly EGSE ICD"**
  - When this action is asked by the operator (in local mode only), the SCOE software shall stop all its processes in the right order. When action is finished, the computer shall be under OS control.
  - Last Common RC (Stop the running ...) in table 12 (IFRQT-0246) **will be deleted**
- **"ASP will remove IFRQT-0042 and IFRQT-0043 in next issue of EGSE ICD"**
  - IFRQT-0042 (EGSE application Software shall manage two levels of priority of PIPE messages ...) **will be deleted**
  - IFRQT-0043 (... application software shall foresee to manage a buffer for each kind of PIPE message) **will be deleted**
- **"5 second timeout : SSBV suggests to implement a similar timeout also for write process. EGSE ICD will reflect this SSBV proposal"**
  - This 5 second timeout will be applied also for the transmit side (i.e. SCOE's have to be able to write all data of a message within 5 seconds, otherwise error). This is essentially applicable for SCOE's sending a big amount of data to CCS (TM/TC DFE and CDMU DFE)

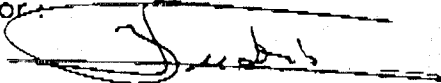
3. IFRQT-0246 : Common SCOE Mandatory Commands :

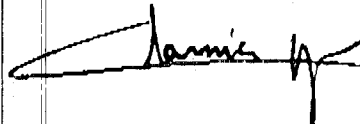
There are no global assignments for RC\_ID nor pre-defined datafield structures, these are to be defined by the SCOE manufacturer



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4. RC\_ID allocation :  
Each SCOE manufacturer can choose freely the allocation of the RC-ID field.
5. Section 4.3.1 : Specific SCOE Commands  
The lists of commands listed in section 4.3.1 are just suggestions. The contractor is free to define additional commands.
6. Section 4.6.3 : Specific SCOE Messages  
The lists of RM status listed in section 4.6.3 are just suggestions. The contractor is free to define additional status. However it should include at least the information specified in requirement IFRQT-0562-1 (common RM parameters).  
RM HK datafields is defined by the subcontractor.
7. IFRQT-0080 : Watchdog RM message (60 sec timeout)  
For clarification : this watchdog message is only send from SCOE's to CCS. It is not mutual, i.e. no watchdog message will be transmitted by CCS towards the SCOE's.
8. IFRQT-0201 : All RC not to be hard coded in SCOE  
Only the RC\_IDs need to be configurable.
9. Section 4.1.1 : RM packet size limited to 1024 bytes  
For Periodic RM Packets messages, Type and Sub-Type fields are fixed to (3,25). According to PS\_ICD the Source Data field of these packets contains the SID (Structure Identifier). By using this SID, it could be possible to have more than 1024 bytes of RM parameters.  
The combination of APID/Type/Sub-type/SID fields solely identify the list of parameters of the packet.
10. IFRQT-0803 → RC Acceptance Report - Success :
  - Remaining length shall be 0x1C instead of 0x16
  - Packet length field of Source Packet Header shall be 0x0F instead of 0x0B
11. IFRQT-0140 : Time Field of RM packets  
The time reference is the TAI Epoch of 1958 January 1.  
The field "coarse time" is 4 octets of number of second (full scale = approximately 136 years)

Best regards.

Author: 

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<b>Object : Update of EGSE ICD n° H-P-1-ASPI-IS-0121</b> Closure of AI#0198-59, AI#0198-57, AI#0198-58 Closure of AI#0199-73	

Ref 1 : H-P-MI-AI-0198

Ref 2 : H-P-MI-AI-0199