SPIRE-RAL-MOM-001004

Minutes of EGSE Meeting #14

RAL, CR8 R27
26-27th September 2001

Attendees: Otto Bauer (MPE) (27th only), Luc Dubbledam (SRON), Ken King (RAL), Andy Matheson (RAL), Brian Melton (ESTEC) (27th only), Dave Parker (RAL), Jeff Payne (RAL), Stefan Thuerey (ESTEC), Frederick Wechsler, Eric Wiezorrek (MPE), Stephan Veillat (ESTEC) (27th only)

1. Adoption of the agenda

Adopted

2. Minutes and Actions from last meeting

Discussion of closure of EGSE#12-10. We could not remember why this was closed!
This will be further discussed at next CDMS meeting - to be held on 9th October.

Review of Action Items
EGSE#09-06: Still Open
EGSE#09-07: Still Open - was waiting for #9-10 as it refers to the SOW of all systems
EGSE#09-09: Closed - should be on Livelink
EGSE#09-10: Still Open
EGSE#12-03: Closed - 'bug' will be explained in a s/w specification document TBW. It has been agreed earlier that if the router crashes all clients will be restarted so a warm start capability will not be implemented.
EGSE#12-04: Still Open - but version 0.92 is adequate
EGSE#12-11: Still Open - the version we have is considered to be not detailed enough. ESA believes that almost all i/f characteristics will in fact be affected by the extra components added by IFSI or the by the processor used to control the interface. Therefore the low-level interface will need to be tested. ESA added that they will check this interface on delivery, and they will need a set of data to compare their results with. This document must therefore be updated.
If IFSI do not carry out the tests, it may be acceptable for the test plan to indicate that the test will be carried out by CGS and should refer to the particular part of the CGS test plan that covers this. The relevant part of the CGS Test Report should be attached to the IFSI Test Report.
EGSE#12-14: Still Open - Acceptance Test Plan due 5th October, Test Report can only be done when Router version 1 is available - see action EGSE #12-04
EGSE#12-15: Still Open - new date 12th October
EGSE#12-16: Still Open - new date 12th October
EGSE#13-01: Still Open
EGSE#13-02: Closed - 26/09/01
EGSE#13-03: Closed - 26/09/01
EGSE#13-04: Closed
EGSE#13-05: Closed
EGSE#13-06: Closed - email 9th September - to be discussed at this meeting
EGSE#13-07: Closed - email 9th September - to be discussed at this meeting
EGSE#13-08: Closed by Erich
EGSE#13-09: Closed
EGSE#13-10: Closed by HIFI, Still Open on SPIRE
EGSE#13-11: Closed - Project will not approve

EGSE#13-12: Closed
EGSE#13-13: Closed by HFI, Obsolete for LFI - note we will look at these comments but do not considered Planck comments as requirements
EGSE#13-14: Still Open
EGSE#13-15: Still Open
EGSE#13-16: Still Open - waiting for #13-15 to be closed
EGSE#13-17: Closed by HIFI, Still Open on SPIRE, PACS

3. Acceptance Test of CDMU simulator

3.1. Caveats

presented by Dave - see annex 1

3.2. Test Plan agreement

Test Plan Accepted, but the following items were identified as not being implemented and were required for interface testing (possibly the time sync could be carried out in a different way - by sending the time sync command from the Test Control, provided high accuracy (<~few secs) is not required):

- Time Sync
- Dynamic bus profile
- Burst Mode

3.3. Acceptance Test Execution

---------- **End of first day** ----------

3.4. Continued execution of acceptance test

4. Report from Acceptance Test

Thuerey: satisfied that all nominal functionalities (apart from those given above) are working. Seems stable. More work is necessary on handling of errors. Data throughput needs to be looked at - need detailed analysis of where bottlenecks occur

Dubbeldam: impressed by stability

Wiezorrek: impressed by bus logging. Worried that IFSI were not present. Believes that CDMS Sim will be adequate for controlling the instrument.

Test was successful with 3 NCRs
Missing features:

- Time Sync - on card
- Time Sync - setting instrument time
- Dynamic bus profile
- Burst Mode
- Event message handling - asynchronous
- Error handling (low-level)
- Performance - testing and analysis with more realistic bus lists

Most of these need further definition by the CDMS WG - e.g. event telemetry, bus lists etc

Action #14-01: Dave, to write a note on possible simplifications of Bus protocol, due 5th Oct

5. Next Steps

5.1. Schedule

- Next version of CDMS Simulator required end Feb 02

5.2. Missing Features

See section 4

5.3. PS-ICD

Instruments requested that the topics that had been identified to be clarified are discussed by the Data Management WG and an agreed implementation be provided by end February
Thuerey agreed and said that a set of bus profiles would be available by then which could be used for testing

6. Status Reports

6.1. TEI

Luc presented diagrams from the TEI URD (SRON-U/HIFI/SP/2001-009), which can be found on Livelink.
TEI runs on a miniPC (C interface on Linux). Currently working on interface to the HIFI FPU test cryostat
PACS and SPIRE will use LabView to implement this interface.

Action #14-02: PACS to confirm, or otherwise, that they will insert OBSID and BBID into the telemetry generated by their test equipment, due

6.2. Router + Gateway

Problems with Gateway interface have been solved . The ICD had been issued. Luc has asked Albrecht to issue the Router Issue 1. This should have been done during the meeting.

6.3. SCOS2000

- Version 2.1e (flight operations, not egse version) is available.
- Plan was to prepare 2.1.1e, including EGSE. This has been delivered, but only works on Solaris at present. Problem with this version: still TTA version - modification needed to generate SPID is taken from database. This mod will be made within a week. So this version will be available then.
- No firm date is available yet for delivery of 2.2e, which should contain the OBS management functions available in version 2.3 (Bryan believes this will be available by end of year). HGSSE was told this version would contain all the required functionality for ILT.

Bryan recommends we install and use 2.1.1.e. now.
He will support installation at MPE first to allow integration of an EGSE system. Therefore RAL will not get SCOS2000 until after this.

Discussion of tool to provide TC history and
Action #14-03: Erich to provide an ASCII file output of TC History and OOL Data from his version of SCOS.

Action #14-04: Bryan to look into the possibility of providing software in the EGSE version of SCOS2000 to produce ASCII files for TC History and OOL Data.

6.4. Test Control

Erich:
It is not yet possible to specify the absolute release time of a command but can use relative times using wait statements.
Investigating a command line method of starting test procedures as using the GUI limits the number of procedures running in parallel to 4

6.5. MIB Editor

Luc:
The current version contains a bug (only when used with access 2000), which is solved but a new version has not been issued.
A new version of the MIB ICD (version 5) has been issued - the current MIB editor is thought to meet version 4.2 ICD.

Action#14-05: Bryan to find out which version of the MIB ICD will be used by Version 2.2e of SCOS2000

The current MIB editor was developed for Integral and it is not clear if there are any Integral-specific features that may not be needed for Herschel.

Action #14-06: Luc to find out if a new version of the MIB will be made available.

6.6. OBS Management

6.7. OBS Maintenance

7. EGSE Integration at MPE

Test will take place on 15-17th October. It was planned that the 15th would be used for acceptance test of single components but only the Router can be tested stand-alone.

Luc wants to test the ability to reconfigure the EGSE to carry out some HIFI tests. Erich pointed out that this may need files, additional to the MIB, to be changed. There are configuration files for SCOS2000 that could affect which data is looked at by SCOS. This means that if the data stored into the HCCS that comes from SCOS (e.g. OOL data TC History) is affected by the contents of these files, then the file must be version controlled (and stored in the HCSS along with the MIB)

Otto would like detailed procedures. Erich would like more time to set up tests
Date of test moved to 22nd October, starting 14:00

Attendance:
HIFI: Luc
PACS: Erich, Otto
SPIRE: Andy, Jeff
ESA: Frederick?

7.1. Simulators

Erich requires an RT that can generate data for testing end-to-end functionality
His suggestion is for a Periodic Housekeeping Packet containing the following data:
Word 0: Incrementing with each packet , starting from 0

Word 1: Toggle between 0000 and FFFF every 5 packets
Words 2-199: anything
SPIRE will update the RT to provide this
Action #14-07: Erich to confirm the required functionality of RT for Integration Tests

8. Summary of Action Items

9. Next meetings

Integration Test: October 22nd-24th at MPE
EGSE#15 (Telecon): October 30th 10:00 (CET) - Otto, Luc, Ken, Frederick, Bryan

10. AOB

10.1. CCS Interfaces

CCS ITT is due out in MID October. It apparently does not constrain the bidders to interface to the instrument station in the way that has been assumed for smooth transition.

Following Frederick's presentation the instruments are very worried about the definition in the CCS ITT of the interfaces between the CCS and the instrument station, including the HCSS. As a consequence the PMs will contact Thomas Passvogel.

Frederick agreed that the OBS management functions of SCOS2000 would be handled by the CCS. Therefore the ICD describing the structure of the images produced by the OBS maintenance facility will be included as applicable to the CCS ITT.

10.2. HCSS integration

This requires an instrument simulator that provides telemetry, containing OBSID, BBID etc. This is needed in December.

Action #14-08: Stephan to provide the requirements on the instrument simulator for HCSS integration

10.3. Documentation

Action #14-09: Ken to update Document List and comment it, and distribute

10.4. Actions outstanding at end of meeting

Action	Actionee	Description	Due Date
EGSE#09-06	Otto	Provide CDMS Simulator SOW	9th Aug 01
EGSE#09-07	Otto	Provide Letter of Understanding of the EGSE WG	17th Aug 01
EGSE#09-10	IFSI	Provide draft OBS Maintenance Facility SOW	17th Aug 01
EGSE#12-04	Luc	Issue version 1.0 of the Router	30 Sep 01
EGSE#12-11	IFSI	Provide detailed DPU Test Plan (for the test at IFSI)	17th Aug 01
EGSE#12-14	Luc	a. Provide Acceptance Test Plan for Router b. Provide Test Report for Router	29th Jun 01
EGSE#12-15	Erich	Provide Acceptance Test Plan for Test Control	12th Oct 01
EGSE#12-16	Ken Luc	Provide a proposal for the hardware and operating system setup for ILT	12th Oct 01
EGSE#13-01	Otto	Issue a HCSS Integration and Acceptance	30 Sep 01

	Stephane	Test Plan	
EGSE#13-10	SPIRE	Comment on Test Control Requirements Matrix	14 Sep 01
EGSE#13-14	HIFI PACS SPIRE Frederick Stefan	Comment on the DPU/ICU test plan	14 Sep 01
EGSE#13-15	HIFI PACS SPIRE	Make final comments on EGSE Integration Plan	14 Sep 01
EGSE#13-16	Luc	Issue version 1.0 of EGSE Integration Plan	14 Sep 01
EGSE#13-17	PACS SPIRE	Specify their implementation of the PS-ICD and send to Otto	14 Sep 01
EGSE#14-01	Dave	to write a note on possible simplifications of bus protocol	5 Oct 01
EGSE#14-02	PACS	to confirm, or otherwise, that they will insert OBSID and BBID into the telemetry generated by their test equipment	12 Oct 01
EGSE#14-03	Erich	to provide an ASCII file output of TC History and OOL Data from his version of SCOS.	1 Oct 01
EGSE#14-04	Bryan	to look into the possibility of providing software in the EGSE version of SCOS2000 to produce ASCII files for TC History and OOL Data	5 Oct 01
EGSE#14-05	Bryan	to find out which version of the MIB ICD will be used by Version 2.2e of SCOS2000	1 Oct 01
EGSE#14-06	Luc	to find out if a new version of the MIB Editor will be made available.	1 Oct 01
EGSE#14-07	Erich	to confirm the required functionality of RT for Integration Tests	1 Oct 01
EGSE#14-08	Stephan	to provide the requirements on the instrument simulator for HCSS integration tests *This is already an action from theHGSSE*	5 Oct 01
EGSE#14-09	Ken	to update Document List and comment it, and distribute	22 Oct 01