
Minutes : Common EGSE meeting #11

Present	PACS	Erich Wiezorreck	ERW	erw@mpe.mpg.de
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	ESOC	David Verrier	DV	David.Verrier@esa.int
Absent	PACS	Otto Bauer	OHB	ohb@mpe.mpg.de
Date : 8 May 2001				
Place : RAL				

Agenda:

1. Opening of meeting and the adoption of agenda
2. Approval of Minutes of April 4, 2001
3. Action items
4. CDMS IF test requirements
5. Acceptance Test Plans
6. EGSE integration plan
7. CDMS demo
8. PS-ICD
9. Progress reports
10. Schedule
11. Any other business
12. Date and place next meeting

1. Opening of meeting and the adoption of agenda

Otto can not be present. Ken is today's chairman.

2. Approval of Minutes of April 4, 2001

Dave: Under CDMS-sim the statement is made that DDC card is more expensive. This, however is cancelled out by the price of the SW, which is lower. The price of both options Systran, DDC is comparable.

No further comments

3. Action items

Status of action Items

AI	Status	Due date	Actionee	Description
EGSE#6-01	Closed	Feb 28,2001	Pjotr	Comment on the FIRST documentation tree as in appendix 03 and send your comments to PE, JRR This was especially for the EGSE-ILT documentation under responsibility of the ICCs.
				in the process of the SIRD and SMPM reviews this doctree has been reviewed and updated
EGSE#6-08	Closed	Feb 28,2001	Pjotr	Assemble OBSM (maintenance) URD from existing documentation
EGSE#9-01	Closed	April 27, 01	Otto	Update terms of Reference
EGSE#9-03	Closed	April 27,01	Luc	First draft router ICD for TEI
EGSE#9-06	open	April 27, 01	Otto	CDMS sim SOW
EGSE#9-07	open	April 27, 01	Otto	Letter of understanding of EGSE WG
EGSE#9-08	Closed	April 27, 01	Luc	First draft SOW TEI
EGSE#9-09	open	April 27,01	Erich	First draft SOW OBSM
EGSE#9-10	open	April 27,01	Riccardo	First draft SOW OBS maintenance facility
EGSE#10-1	Closed	April 27	Bryan	Bryan will nominate OBSM technical point of contact and bring him/her in contact with Erich.
				Contact is Sylvie Haag
EGSE#10-2	Open	May 31	All	Make proposal for naming conventions.
EGSE#10-3	Closed	April 9		Willem Luinge to inform Otto
EGSE#10-4	re phrased	April 27	Luc	Add warm restart capability to Router URD
				Rephrase
EGSE#10-5	Closed	April 27	MPE	Send New requirements for TOPE to Bryan
EGSE#10-6	Open	April 27	Erich	Describe Test-control collect input organize user-meeting
EGSE#10-7	Closed	April 27	Luc	New MIB-report
EGSE#10-8	Closed	April 12	Otto	Forward MIB editor to IFSI
EGSE#10-9	Open	April 27	Ken	Acceptance test plan for CDMSsim
EGSE#10-10	Open	April 12	Otto	Ask IFSI to write acceptance test plan for ICU/DPU IF.
				Rephrase
EGSE#10-11	Closed	April 27	Otto	Invite LFI/HFI to cooperate
EGSE#10-12	Closed	April 5,01	Luc	Next version of integration plan
EGSE#10-13	Closed	April 12	All	Comment on Herschel/Planck Configuration Management Plan
EGSE#10-14	Closed	April 27	All	Issue comment on PS-ICD

Discussion with respect to action items:

Warm start capability:

The responsibility to restart after a Router crash should be referred to the Clients. As this applies to all clients we want to add this to the Router ICD.

The Router contains no dynamic information that gets lost in case of crashes.

Acceptance test-plan for ICU-DPU

It is not clear if Otto has asked IFSI to produce this test-plan, nor, if he has, if the ICU/DPU AIV-plan is an answer to this question.

Nevertheless, we need more than this AIV-plan that only refers to TBW-functional test.

The AI will be rephrased to clearly indicate what documentation is required.

See also discussion below at "schedule".

MIB naming conventions EGSE 10-2

As nobody cared to generate input, we just repeat the discussion about Naming conventions of the last meeting. Refer to Minutes of Meeting EGSE#10, Minutes and Action Items last meeting, 6th item.

For those who just joined the discussion, the text of the previous meeting::

"

Not everybody around the table is equally happy with the naming conventions as proposed by ESA.

The several ideas are:

- *Esa proposes to identify parameters and commands with a 6-character code, that consists of an instrument-identifier, a 4-digit number and a parameter identifier. Further each parameter and command has a description of 16 or 24 characters.*
- *Otto wants to use mnemonics, rather than this naming structure. Where SCOS-2000 allows to use 8 characters for a parameter-identification it is unclear why we are restricted to six characters without no obvious meaning.*
- *If the first character already indicates the instrument, then why is the numerical range also restricted per instrument?*
- *The use of underscores in description field should not be forbidden.*
- *Luc thinks that 8 characters is too short for a reasonable mnemonic and 16 (24 respectively) is too short for a reasonable description of a parameter. He would be happy to use the identifiers as proposed by Esa in conjunction with the description-field that will take over the role of the mnemonic. Notice that in all monitoring functions of SCOS-2000 the identifier and the description are displayed together. This can also be maintained in all hardcopy output.*
- *One interface that works with identifiers only is TOPE-S2K. It might be feasible to introduce a change here so that the test procedures can use the description-fields rather than the identifiers.*
 - *EGSE#10-2 We decide to discuss this item with Alcatel and with each other and to come up with an proposal.*

"

EGSE#11-1: Erich will organize a telecon end May. Chris Butler and Bruno Mansoux will attend for LFI and HFI respectively. For SPIRE and HIFI: Ken and Luc.

Documents

We get lost in the wood of documents. We need to have an overview of everything that is available, dump that on lifelink and maintain it:

EGSE#11-2: Luc to assemble a list of documents.

EGSE#11-3: Erich to get a directory on Life-Link. Distribute instructions to the group.
Arrange Read and Write Access.

4. CDMS IF test requirements

Frederick has written comments about the document and Luc has responded to that. Luc agrees with most remarks and requests discussion for some items.

Dave has some remarks, too.

As the meeting does not allow detailed discussion we agree to postpone:

EGSE#11-4: Luc: distribute Fredericks memo and Luc's initial response

EGSE#11-5: Luc and Frederick to reach agreement on the open items

EGSE#11-6: Dave to send his comment to Luc

EGSE#11-7: Luc to update the document accordingly

Remarks:

- RAL should keep a test record of all individual test-units delivered by them.
- The Acceptance test plan for the CDMSSim should also contain a test of the interface with the router.
- This is a general item: We also need a standard test for any Client that connects to the Router.

EGSE#11-8: Luc will discuss this item with Albrecht.

5. Acceptance Test Plans

- CDMU simulator
- ICU/DPU to CDMS interface

No progress to be reported on these subjects

6. EGSE integration plan

Bryan has some comments:

- There should be a performance test of the Router, when connected to SCOS-2000 and some other test-clients
- For the performance test the HCSS should be simulated to take the increased traffic exiting the Router into account
- The test described in 3.5 should contain more components. TC originating from HCSS should arrive at test-clients.

EGSE#11-9: Luc to issue third draft.

7. CDMS demo

Skipped due to lack of time.

8. PS-ICD

During this item the MinuteMaker was off-duty as the responses to the CRRs discussed here should find their own way to the instrument-teams.

Stefan does not commit to a date for the next version.

CRR-generators can indicate when a question is urgent and Stefan can "predict" the outcome.

The use of APIDs is discussed briefly. The instrument-teams want the APID-Annex showing more details.

For HIFI the use of APID is as follows:

TM-packet	APID
TC-verification	1024
Event packets	1024
Periodic Housekeeping	1026
Parameter scans	1026
Memory management	1026
Nominal science from HRS-H	1028
Nominal science from HRS-V	1029
Nominal science from WBS-H	1030
Nominal science from WBS-V	1031

9. Progress reports

CDMS-sim

Presentation of some figures in the SW specification document.

Some information is missing in the protocol specification:

- The maximum number of TC per subframe. It is a problem to squeeze four TC-packets into one subframe.
- The bus profiles are not specified. RAL has to guess their profiles based on some assumptions.

Status:

- The simulator is almost complete
- At this moment the speed of operation can be simulated.

To be done:

- Error handling
- labview-C interface
- testing

Timeframe:

- No change in the June 12-date

TEI

Luc shows an overview of components that occur in all pieces of Test-Equipment Interfaces that connect to the Router.

When it gets clear that these blocks will be written in C, Erich and Ken think they have a problem in using it with their Test-Equipment. The PACS and SPIRE test-equipment will be controlled by Labview-applications and Labview combines poorly with C.

EGSE#11-10: Erich will discuss this with the test-engineers and will respond by email within two weeks.

Bryan: If we need an expert in the Labview-field we can always consult Per Hemso.

Router:

Albrecht is almost full time available for EGSE-issues. The Router is now connected to TTA and can accept TC. The link back, however, is not operational: the acknowledgement from the Router to TTA is not received by TTA. This will be solved in cooperation with Serge Valera.

To be done:

Define a test for the Router

Test the Router

Distribute Router + documentation; This will be done as soon as the Router TM-gateway is working.

Tentative date to have this finished: May 31.

Ken has some bug reports that seem to be lost.

EGSE#11-11:Ken to resend the Bug reports. + copy to Luc.

SCOS-2000

No news. Linux version was demonstrated at the megameeting in April. Linux version will be available according to schedule (July 2001). No date is known yet for the subsequent delivery of TTA-2000 in Linux.

It is suggested to the instrument teams to play around with the Linux version as early as possible.

Test-Control

Most of the requirements as listed in the test-control SOW are implemented.

- It is not possible to stop/resume running procedures, other than when in debugging mode.
- A procedure can not be started with parameters. But there are work-arounds possible.
- Erich want to have a better Task-launcher for a better use of parallel TOPE sessions.

There is a problem with distributing the current TTA user manual as Siemens occurs on too may places.

EGSE#11-12: Bryan will send a version of this manual to Erich with all Siemenses removed.

Status: Test-Control as it is now is able to support the integration test in June.

For the purpose of testing the Test-control –S2K-Router combination we need some test clients and a MIBlet.

Per Hemso has made test-clients available.

Luc has already a MIBlet with HSO packet headers and TC-packets.

MIB editor

No news.

Both Erich and Luc are happy with the improvement of the MIB editor.

OBSM

Erich needs time to dive deeply into the material.

10. Schedule

Ken is confident that the date for acceptance test can stay at June 12.

What is next:

Bryan is warning (again) for integrating too fast:

- The EGSE should be in a state that has proven to be stable
- The DPU should be ready for integration with the EGSE

For what the DPU is concerned there is not enough information about the IFSI schedule.

Before the DPU can be integrated with the EGSE:

- The DPU can boot successfully
- The OBS can be loaded (J-tag connector)
- The DPU passes the Interface tests which demonstrates that the CDMS-interface is supported up to the Data-Link level.

*(In my (Luc's) opinion it should even be possible to require a successful connection test:
Send command (17,1) and check the response.)*

We decide to discuss this in a telecon: Ken, Otto, Luc.

Date May 31, 10h00 (MET DST) TO BE CONFIRMED.

Another issue is the delivery schedule and test-schedule of IFSI.

EGSE#11-13: Otto: Please clarify the IFSI schedule.

11. Any other business

none

12. Date and place next meeting

June 12 –13 at RAL

Action items

AI	Status	Due date	Actionee	Description
EGSE#9-06		April 27, 01	Otto	CDMS sim SOW
EGSE#9-07		April 27, 01	Otto	Letter of understanding of EGSE WG
EGSE#9-09		April 27,01	Erich	First draft SOW OBSM
EGSE#9-10		April 27,01	Riccardo	First draft SOW OBS maintenance facility
EGSE#10-2		May 31	All	Make proposal for naming conventions.
EGSE#10-4		May 31	Luc	Add warm restart capability to Router ICD
EGSE#10-6		April 27	Erich	Describe Test-control collect input organize user-meeting
EGSE#10-9		April 27	Ken	Acceptance test plan for CDMSsim
EGSE#10-10		April 12	Otto	Ask IFSI to write acceptance test plan for ICU/DPU IF that specifies clearly the Electrical Interface tests that need to be carried out and shall be carried out before the ICU/DPU is ready for the next-level integration, i.e. integration with the EGSE
EGSE#11-1:		May 31	Erich	organize a telecon end May on naming conventions. Participants: - Chris Butler - Bruno Mansoux - Ken - Luc.
EGSE#11-2:		May 31	Luc	assemble a list of documents.
EGSE#11-3:		May 31	Erich	get a directory on Life-Link. Distribute instructions to the group. Arrange Read and Write Access.
EGSE#11-4:		May 31	Luc:	distribute Fredericks memo and Luc's initial response
EGSE#11-5:		May 31	Luc Frederick	reach agreement on the open items in CDMS IF test doc
EGSE#11-6:		May 15	Dave	send his comment on test-requirements doc. to Luc
EGSE#11-7:		May 31	Luc	update the test requirements document
EGSE#11-8:		May 31	Luc	discuss client-test with Albrecht.
EGSE#11-9:		May 31	Luc	issue third draft EGSE integration plan
EGSE#11-10:		May 31	Erich	discuss TEI/labview/C issue with the test-engineers and will respond by email within two weeks.
EGSE#11-11:		May 15	Ken	send the Router Bug reports. + copy to Luc.
EGSE#11-12:		May 31	Bryan	send a version of TTA manual to Erich with all Siemenses removed.
EGSE#11-13:		May 31	Otto:	clarify the IFSI schedule.

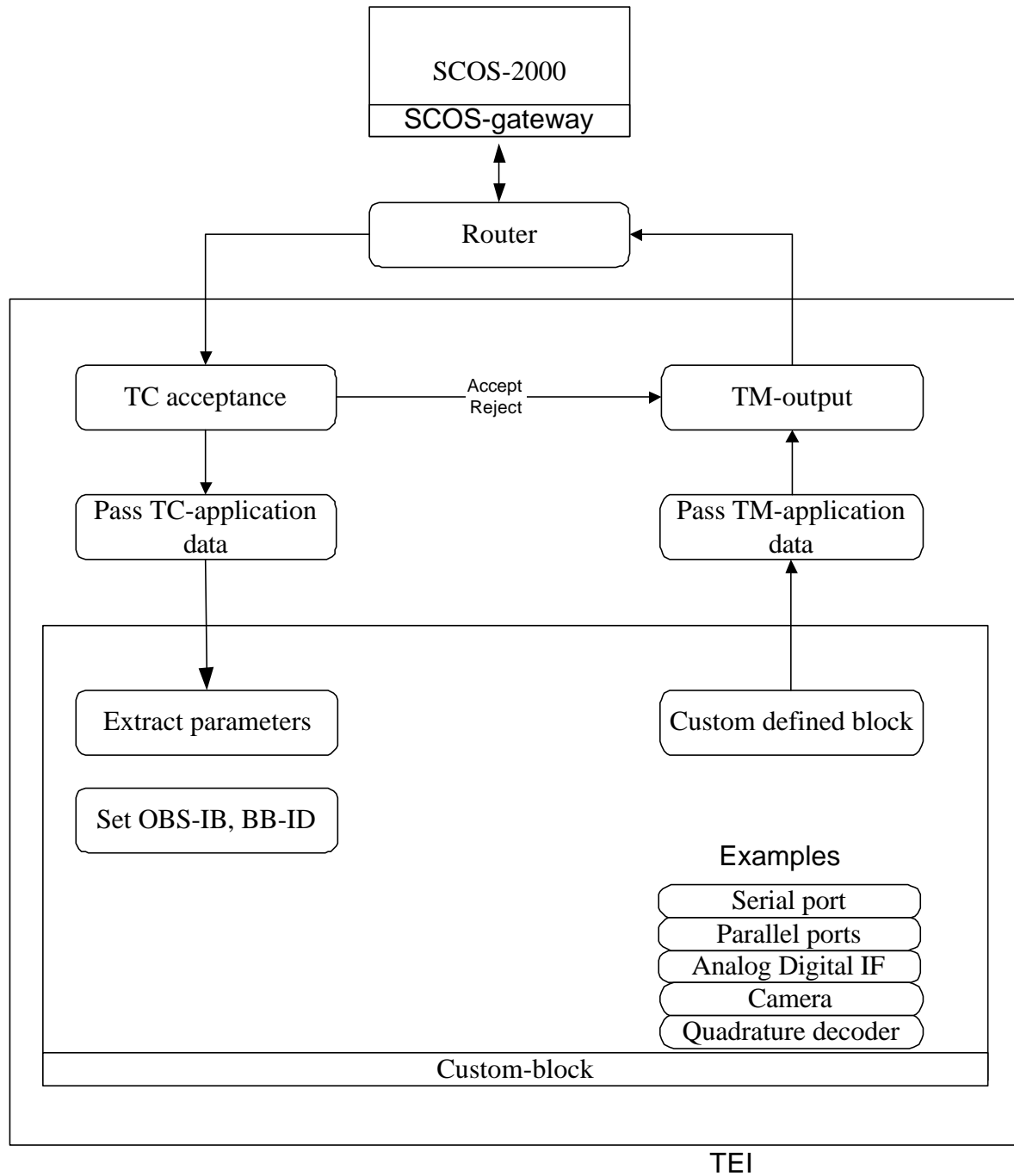
Annex A. Erich's presentation on Test-control

Annex B. Luc's presentation on TEI

Annex C. Dave's presentation on CDMS-sim SW specification



Test equipment interface



Test Control --- TOPE requirements matrix at May 4, 2001

1. Test procedure handling

Requ.-ID	Delivery	Description	Status	Comment
TPE-TP-01	SUB	It shall be possible to request any instrument specific command and to provide all its required parameters as defined in the MIB.	✓	
TPE-TP-02	SUB	It shall be possible to request any command for external test equipment and environment control and to provide all its required parameters as defined in the MIB.	✓	
TPE-TP-03	ILT	It shall be possible to use the actual value of a TM parameter within a test procedure.		
TPE-TP-04	ILT	It shall be possible to synchronize the whole EGSE set-up with a reference time via a special TM packet.		
TPE-TP-05	ILT	Test procedures may generate event packets.		
TPE-TP-06	ILT	It shall be possible to request to schedule any observation from FCSS.		
TPE-TP-07	ILT	A requested observation will return a command sequence, which shall be uplinked automatically.		
TPE-TP-08	ILT	It shall be possible within a few seconds to update the time stamps of the received command sequence with the actual time (considering the delta times as well).		
TPE-TP-09	SUB/ILT	It shall be possible to time-tag commands or observation requests with absolute times.	✓	
TPE-TP-10	SUB	It shall be possible to generate and edit test procedures from within Test Control.	✓	
TPE-TP-11	SUB	It shall be possible to store a TBD number ($\sim 10 < n < \sim 100$) of test procedures within the TPE.	✓	

TPE-TP-12	SUB	It shall be possible to select and execute test procedures from TPE and provide all user input eventually needed by these procedures.	✓	User input via dialog windows and command line, but no formal test procedure parameters
TPE-TP-13	SUB	It shall be possible to abort, stop and resume any running test procedure by manual interaction.	?	Only in debug mode Not during modal dialogs
TPE-TP-14	SUB	In case of errors the execution of the running test procedure shall be suspended.	No	What kind of errors?
TPE-TP-15	ILT	It shall be possible to execute several test procedures in the background to allow implementation of autonomy procedures.		
TPE-TP-16	ILT	Background procedures may stop or abort ongoing test procedures.		
TPE-TP-17	ILT	Background procedures may generate warning messages to the operator.		
TPE-TP-18	SUB	A log of the test procedure execution shall be produced.	✓	
TPE-TP-19	ILT	Each background test procedure shall have its own log.		
TPE-TP-21	SUB	The actual commands generated by the test procedure are logged, incl. the time at which they were sent.	✓	
TPE-TP-22	SUB	It shall be possible to log comments entered by the operator.	✓	
TPE-TP-23	SUB	It shall be possible to track an ongoing test procedure via a display indicating the position within the procedure and showing at least the recent past and near future steps of the procedure. Back and forward scrolling shall be possible.	✓	Only in debug mode
TPE-TP-24	SUB	At any moment the message window for the feedback from autonomy functions and test procedures shall be displayed.	?	No background procedures, but up to three concurrently running test procedure plus another one in debug mode.
TPE-TP-25	SUB	On user request it shall be possible to display the logging information originating from test procedures.	✓	It is displayed all the time.
TPE-TP-26	SUB	There shall be a separate window from where test procedures, autonomy procedures or command timelines/schedules can be selected, started, aborted,	✓	Up to three test procedure environments can be started to start/edit/control test procedures. In addition there is a single debugging environment as

		stopped and resumed.		well.
TPE-TP-27	ILT	Both, the spacecraft reference time (= simulated test time \neq local time) at 1 sec resolution and the actual local time are displayed to the Test Control user.		
TPE-TP-28	SUB	There shall be a separate window in which editing of autonomy and test procedures and logs are possible. Export and import activities from/to Test Control shall be carried out here as well.	✓	
TPE-TP-29	SUB	There shall be a separate window in which export and import activities from/to Test Control are carried out.	Not yet	

2. SCOS 2000 interface

Requ.-ID	Delivery	Description	Status	Comment
TPE-SC-01	SUB	It shall be possible to issue command requests to the SCOS 2000 command dispatcher within test procedures.	✓	
TPE-SC-02	ILT	It shall be possible to read actual TM parameter values from SCOS 2000.		
TPE-SC-03	ILT	It shall be possible to issue an event packet.		

3. FCSS interface

Requ.-ID	Delivery	Description	Status	Comment
TPE-CS-01	ILT	It shall be possible to request to schedule an observation.		
TPE-CS-02	ILT	It shall be possible to retrieve the resulting command sequence.		
TPE-CS-03	ILT	It shall be possible to report back the actual start time of the observation.		
TPE-CS-04	ILT	Test procedure logs shall be exported to the FCSS.		
TPE-CS-05	ILT	It shall be possible to import/export test procedures and		

		associated files (e.g. calibration files) from/to FCSS.		
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4. MIB interface

Requ.-ID	Delivery	Description	Status	Comment
TPE-MB-01	ILT	All instrument related commands can be imported from the MIB.		
TPE-MB-02	ILT	Test equipment and environment control commands can be imported from the MIB.		
TPE-MB-03	ILT	It shall be easy to specify commands defined in the MIB during test procedure editing.		
TPE-MB-04	ILT	It shall be easy to specify TM parameters defined in the MIB during test procedure editing.		
TPE-MB-05	ILT(V2)	Syntax and parameter range of instrument commands shall be checked as early as possible.		