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 (~10<n<~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

Requ.-ID		Description		Status	Comment
		stopped and resumed.			well.
TPE-TP-27	ILT	Both, the spacecraft reference time (= simulated test time ≠ 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.		

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.		