System Level Test Procedure (SLTP) Checklist

(SLTP_Check_Word.doc April 2014)

Overview:	SLTPs are generated to verify the system behavior complies with software requirements. Use this checklist to ensure the SLTP conform to standards, and fully test requirements with appropriate structural coverage. The associate tracing data and test coverage analysis/disposition data (if any) is also verified.
Misc Info	Reference FMS Test Process 5780-043

Administrative

Y	N	N/A		
○	○	○	1	Are the following artifacts available at the work product review?
			a	Applicable SCR(s).
			b	SLTP under review (configured in ACM)
			c	Configured SRD/SDD(s) (applicable pages only) (check Cover Sheet "Reference/Supporting Material" for element/gen.)
			d	Is the trace data configured in the TcSE/ACM and same has been attached with review packet?
			e	For updates, a difference listing for the SLTP, SRD and Trace that changed.
○	○	○	2	Is the version of the material under review and supporting material (SRD/SDD and Trace) correct for the TEST SCR(s)? Has the material/version been identified on the cover sheet of the review packet (may reference SCR)?
○	○	○	3	Have all TEST and TcSE SCR fields (e.g. Analysis/Solution, Target Config, Change Category**,** Addendum field and all) been filled out properly?
○	○	○	4	Did the SLTP execute without any problems or discrepancies? SLTP problems include all tests Observes that were disposition either Fail, Not Tested or partially tested (If partially tested: whether dispositioned in DSP)?
○	○	○	4.1	If failed: Have all observes that failed been dispositioned in DSP with appropriate SCR/ Lab squawk numbers (write corresponding SRD/SDD requirement) (ensure Lab Squawks are replaced with appropriate SCRs before inspection closure.)?

Standard Content and Conventions

○	○	○	5	Does the SLTP include the following header fields? (Filename; Title; Creation Date; Test Description; SRD Name and Generation, Target name, Revision History, SCR and Generation).
○	○	○	6	Does the Test Description describe the objectives and intent of the test?
○	○	○	7	Does the test procedure have Steps, Observes, and Comments detailed enough to run the test by the person other than the author?
○	○	○	8	Does every "Observe" in the test have an associated anchor?

Requirement Based Test

○	○	○	9	Have all FM operational modes been tested (Synchronization, Hotspare)?
○	○	○	10	Have Power requirements been tested (Power Up, Power Down, Interruption, Warm/Cold Start)?
○	○	○	11	Have the hardware/software interfaces been tested?
○	○	○	12	Have all performance and timing requirements been tested?
○	○	○	13	Are all allocated Requirements verified as tested?
○	○	○	14	Is the configured trace data (TcSE/ACM) updated and verified?

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Test Case Design

Y	N	N/A		
○	○	○	15	Is the test environment appropriate for the requirements under test (i.e. Desktop vs. Lab-based SLTP)?
○	○	○	16	Are all test case inputs set with at least 2 different values?
○	○	○	17	Are all test case outputs measured for at least 2 different values?
○	○	○	18	Has the requirement been verified for boundary values?
○	○	○	19	Have all state transitions (master/spare, inhibited to uninhibited, FS and all) been tested?
○	○	○	20	For requirements stating that the system must conform to one or more industry standards (e.g., ARINC), have the applicable portions of the standards been thoroughly taken into account in the test case design?
○	○	○	21	Is clean-up (reset of test environment or clean up old data) between test cases specified wherever applicable?
○	○	○	22	Is path coverage adequate for each requirement (i.e. normal cases, boundary conditions, tolerances, and functional interfaces)?

Error Guessing

○	○	○	23	Do areas in the software known to have complex algorithms have a sufficient number of test cases to ensure they are working as expected?
○	○	○	24	Do areas in the software associated with complex requirements have a sufficient number of test cases to ensure they are working as expected?

Explanation for any “N” or “NA” answer(s):