

Latest Features in DO Qualification Kit (for DO-178B)

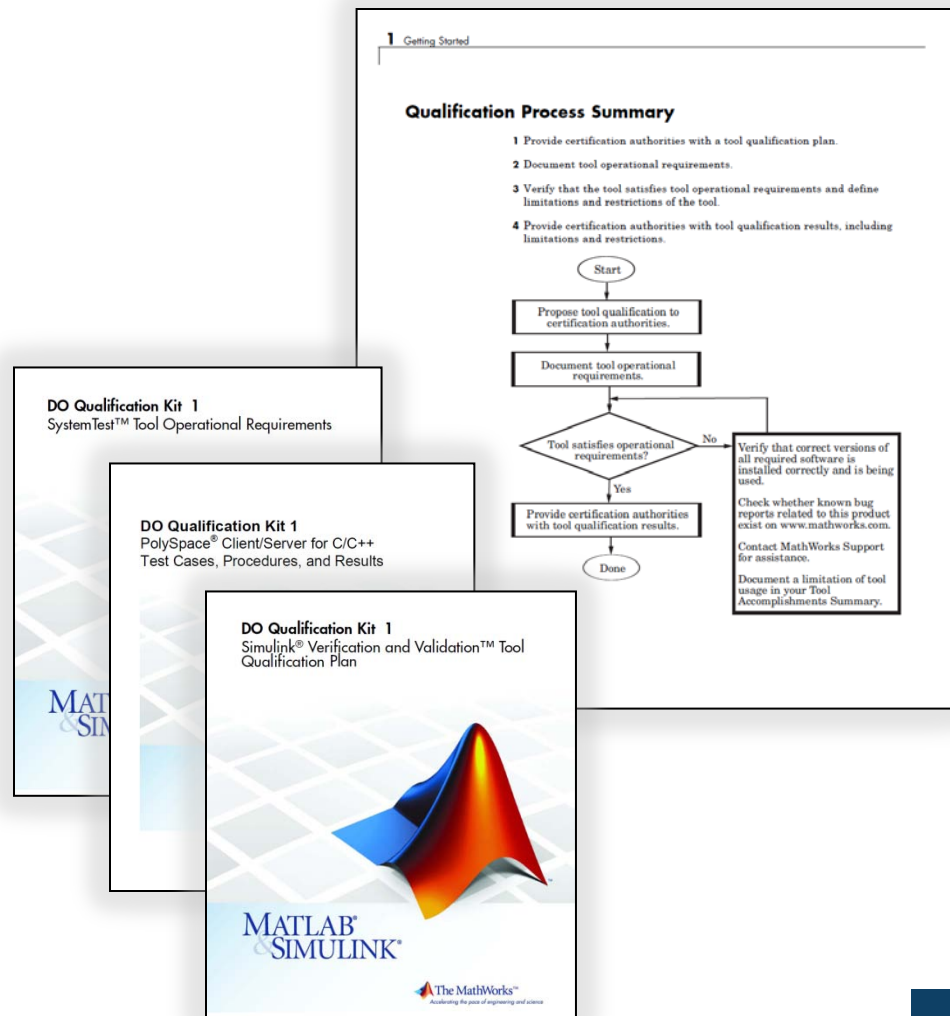
March 2010

R2010a

DO-178B Tool Qualification Kits for Verification and Validation Products

Support for R2010a product versions and features

- Qualify recent Simulink Verification and Validation, SystemTest, PolySpace Client for C/C++, and PolySpace Server for C/C++ versions according to DO-178B
- Claim tool qualification by customizing the tool qualification package and running the qualification tests



DO-178B Qualification Kit for Model Coverage

- New feature support:
 - Simulink Verification and Validation Version 2.7 (R2010a): **Model coverage**
- Certification credits for:
 - Verifiability of requirements and architecture
 - Test coverage analysis
 - Test case and procedure correctness
- Verification credit support for test cases generated with Simulink Design Verifier

Model Coverage

Model Coverage – Traceability Matrix (Continued)

Model Coverage Capability (Requirement ID)	Test Case and Procedure (Test Case ID)	Test Model	Expected Result
MinMax block (MC_SL_MINMAX)	qualkitdo_slvkv_tcsr2.rpt (SL_MC_TC_11)	mminmax.mdl	Included in DocBlock in model
Model block (MC_SL_MDLREF)	qualkitdo_slvkv_tcsr2.rpt (SL_MC_TC_12) qualkitdo_slvkv_tcsr3.rpt (SL_MC_TC_13) qualkitdo_slvkv_tcsr4.rpt (SF_MC_TC_10)	mmodelblock.mdl mmodelblock_condition.mdl mmodelblock_decision.mdl mmodelblock_eol.mdl mmodelblock_lookup.mdl mmodelblock_mccr.mdl mmodelblock_multilevel1.mdl mmodelblock_multilevel2.mdl mModelRefSubsys_s1.mdl mModelRefSubsys_s2.mdl mModelRefSubsys_s3.mdl mmodelblock_topSF.mdl mmodelblock_stateflow.mdl	Included in DocBlock in model
Multiplo (MC_SL)			
Rate Lim (MC_SL)			
Relay bl (MC_SL)			

5 Test Results

Model Coverage

Executing the following test procedures generate the following test result files. The test result files provide the Tool Verification Results in Simulink Report Generator reports.

Model Coverage – Test Summary

Test Procedure	Test Result
qualkitdo_slvkv_tcsr2.rpt	qualkitdo_slvkv_qualificationreport2.html
qualkitdo_slvkv_tcsr3.rpt ¹	qualkitdo_slvkv_qualificationreport3.html
qualkitdo_slvkv_tcsr4.rpt	qualkitdo_slvkv_qualificationreport4.html
qualkitdo_slvkv_tcsr5.rpt	qualkitdo_slvkv_qualificationreport5.html
qualkitdo_slvkv_tcsr6.rpt ²	qualkitdo_slvkv_qualificationreport6.html

Notes:
¹Requires a Stateflow license.
²Requires a Simulink Design Verifier license.

The applicant will:

- Review the test results for correctness.
- Configure the test results in a configuration management system.

Reviewing Test Results

The test result files contain both expected results and links to actual results. For each model, compare the expected results to the actual results:

- 1 From the working folder, open the test result HTML file in a web browser. For example, open qualkitdo_slvkv_qualificationreport2.html.
- 2 In another web browser window, open the model coverage report for the model. For example, open mAbsBlock_CoverageReport.html.

5-4