

Name of Presenter:	Andrus Lehtmets
E-mail:	Andrus.Lehtmets@elvior.ee
Telephone Number:	+3726671739
Contact Address:	Elvior, Mustamäe tee 44, Tallinn 10621, Estonia
Tutorial Title:	Model based TTCN-3 testing explained on a case study
Intended Audience:	TTCN-3 users starting from beginner level – basic knowledge of TTCN-3 is required

Tutorial Overview

Elvior's model based TTCN-3 technology is introduced; tutorial is based on a small practical example. Students will learn

1. how to build state models from system requirements specification,
2. how to set-up test purpose,
3. how to generated test cases and
4. how to execute tests.

Comparison of manually written and automatically generated tests for the same set of use cases is given.

Tutorial Structure and Timing

- 1.Introduction to model-based testing (15 minutes):
 - general architecture
 - Elvior technology
- 2.Introduction to tools used in practical exercise (15 minutes):
 - Poseidon – UML CASE tool for models building
 - MOTES – test generation tool
 - MessageMagic – TTCN-3 test tool
- 3.Light switch (SUT) (10 minutes):
 - requirements specification
 - use cases
- 4.Light switch state model (10 minutes)
- 5.Static scripts (15 minutes)
 - test configuration and test data
 - usage in model building and test generation
- 6.Test cases generation (25 minutes)
 - General settings for test cases generation
 - Defining different test purposes
 - Generating test cases
- 7.Execution of generated TTCN-3 test cases (15 minutes)
 - Tests execution
 - Test results verification
- 8.Comaprison of manually written and generated tests (15 minutes)

Tutorial Materials

- 1.Slides
- 2.SUT requirement specification (2 pages)
- 3.SUT (exe file)
- 4.SUT adapter (using TRI for communicating with TTCN-3 tool)
- 5.UML state model of the SUT
- 6.Static TTCN-3 scripts (test configuration and test data) for test generation

7. Manually written TTCN-3 scripts covering use cases derived from the SUT requirement specification.

8. Getting started guides of MOTES, and MessageMagic.

Further Details (optional)