

Model-Based Testing as a Service

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Software Testing Day at TUT
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Outline

A short history of software testing research at TUT

Model-based testing

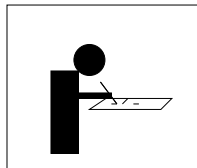
TEMA tools

A short history of software testing research at TUT

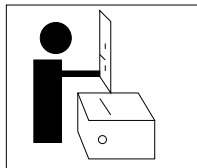
that is, how we found model-based testing

- ▶ Research started 10 years ago
- ▶ as a spin-off from automatic formal verification research.
- ▶ To verify the correctness of a system you need **a model** of it.
- ▶ Could you use **the model** in testing, too?
(well... urrr... now we know it's not that easy...)
- ▶ Who cares! Model-based testing is well worth its own models!

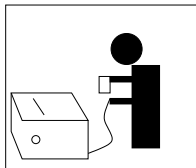
Model-based testing



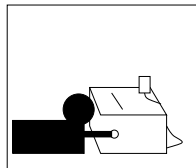
Design a model



Set up the test engine



Connect the system
under test



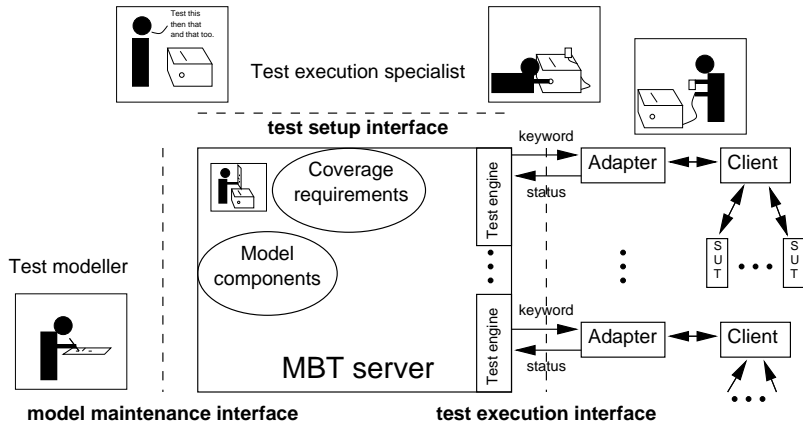
Start test run

Towards accessible model-based testing

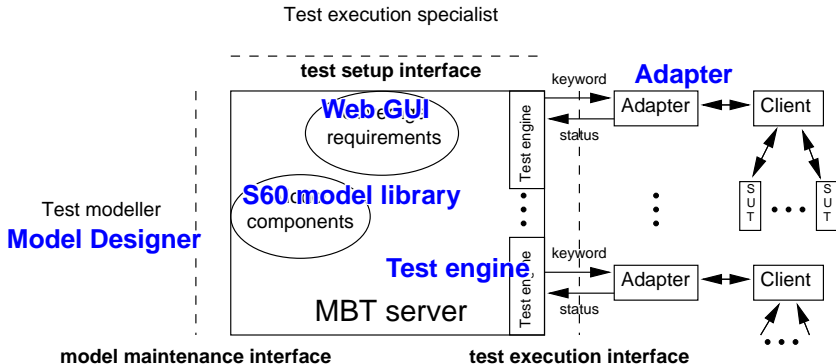
TEMA tools have been designed to make model-based testing more accessible.

- ▶ Testers can design and run model-based tests without knowledge on the models or any experience in modelling.
- ▶ The point of view and the vocabulary to modelling are adopted from keyword-driven testing.
- ▶ Modelling technique designed especially for Symbian S60 applications and their interactions.
- ▶ Model component library with ten S60 applications.

Providing a MBT service on the WEB



What is (or will be) provided by TEMA tools



Dependencies of TEMA tools

Model Designer

Platform independent
(Java application
based on Eclipse's GEF)

Web GUI

PHP, Apache, Unix/Linux

S60 model library

Platform independent

Test engine

Platform independent
Command-line Python application

Adapter

Two versions:

1. COM-component
(for a QuickTestPro client)
2. Java application
(for a Nokia client)

TEMA tools

- ▶ Released under MIT license (“do what you want but don’t blame us if something goes wrong”).
- ▶ Release schedule:
 - ▶ Latest public release is 1.2, includes test engine and models.
 - ▶ 1.4 will be out in May.
 - ▶ 1.5 will be out in September, includes Model Designer and Web GUI.
 - ▶ The last release from TEMA project will be out in February 2009.
- ▶ <http://www.cs.tut.fi/~teams/>
- ▶ Research is funded by TEKES, Nokia, F-Secure, Conformiq, Plenware.