Title:
An Approach for Semi-Automated Test Generation and Test Maintenance

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Abstract:
As unit testing has evolved to an established practice in software development, writing and maintaining tests on acceptance level still causes a major effort. This work presents a concept for an integrated testing tool which provides the developer with an automated test generation and maintenance tool. This relieves the developer from manually writing and updating test code which helps to reduce the overall effort for test maintenance significantly. The tool is based on the concept of a strict separation of test data and test code. This minimizes the size of test code on one side and enables the user to focus on test data specification on the other side. When either changing the production code or the test data the tool finds all affected parts and adapts the test data and test code automatically. Moreover, this also prevents developers from injecting new errors through manual test maintenance.

General conditions:
The results and the developed plug-in prototype of this work are part of the ProMedServices Project, http://web.fhnw.ch/technik/projekte/promedservices.

Related Publications:

Dates:
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