

UTILIZE MODEL APPROACH FOR SELF-TEST CODE AND OPTIMIZING COMPILERS

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ABSTRACT

The paper proposes the concept of automated construction of test suites and test oracles for testing optimizers. It uses an approach based on the generation of test patterns. The main ideas of the model approach are as follows: 1) modeling language implicitly breaks many programs target language into equivalence classes; 2) test coverage criterion is formulated in terms of the model of language; 3) in accordance with the selected set of test criteria is generated. In this paper, we describe a scheme for constructing a test oracle that checks the semantics preservation program after optimization.

KEYWORDS: Implicitly Breaks Many Programs, Terms of the Model of Language