

Title (en)

METHOD AND SYSTEM FOR EVALUATING COMPUTER PROGRAM TESTS BY MEANS OF MUTATION ANALYSIS

Title (de)

VERFAHREN UND SYSTEM ZUR BEURTEILUNG VON COMPUTERPROGRAMMTTESTS MITTELS MUTATIONSANALYSE

Title (fr)

PROCEDE ET SYSTEME D'EVALUATION DE TESTS D'UN PROGRAMME D'ORDINATEUR PAR ANALYSE DE MUTATIONS

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Application

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Abstract (en)

[origin: WO2006024723A2] The invention relates to a method and system for evaluating computer program tests by means of mutation analysis. The inventive method comprises the execution (F7) of mutated programs (Pj) with the insertion (F1) of mutations (Mj) and the identification (F12) of mutated programs (Pj) which, with a pre-determined test (Tk), provide a result (RTkj) identical to a pre-determined result (RTkD). A series (Uj) of relevant tests is selected (F4) for each mutation (Mj) from a plurality of tests (Tk). A mutation (Mj) ranking system (Cm) can be determined (F6) with the application (F6) of at least a first simplicity criterion to the selected series (Uj) of tests. The mutated programs (Pj) are subsequently executed (F7) according to the mutation (Mj) ranking (Cm) order. Each mutated program (Pj) is executed with the tests (Tk) from the associated series (Uj) of tests. In addition, the method can comprise the programming and activation of a programmable circuit. A ranking system for the tests (Tk) from a series (Uj) of tests can be determined with the application of a second simplicity criterion to the tests (Tk) from said series (Uj) of tests.

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