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Abstract

In this paper, we consider the problem of test derivation from a specification FSM, assuming that all possible implementation FSMs are submachines of some nondeterministic FSM. The latter represents a restricted class of faults defined by the user. The state number in an implementation may exceed that of the specification. We present a method for test generation that can deliver shorter tests than the other existing methods. The method is also more flexible than the traditional FSM-based methods, which embody a universal fault model defined only by a state number.

Keywords : Conformance testing, test generation, fault models, finite state machines.