

Wp- method for Partially Specified Deterministic Finite State Machines

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Abstract

The W - method and the Wp - method are two of the main strategies for generating test sets for software modelled by finite state machines. However, both methods only guarantee to find all faults in the implementation if the specification and the implementation are both *completely-specified* deterministic finite state machines (i.e. there is a transition for any state and any input symbol). This paper extends the Wp - method so that it can cope with (possibly) partially specified deterministic finite state machines. This generalized Wp -method can be used to generate test sets for stream X -machines (stream Eilenberg machines).

Keywords: finite state machine testing, Chow's method, stream X -machines (Eilenberg machines)

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