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Identification of a State Machine Structure with Finites Fragment of Behavior

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Identification of a state machine structure with finite fragments of behavior is discussed. The state machine behavior is a set of various finite-sequential (f.-s.) functions realized in a state machine, and under a finite fragment of behavior we mean traces of f.-s. functions and state machines. The concept of an identifying trace for a state machine irredundant over its realization is introduced. The approach is suggested that enables to separate and descript in the set of traces identifying a state machine the finite set of irredundant traces consisting of only essential information for identification of a state machine.

Key words: state machine, experiments with a state machine, subexperiment of experiment, trace of f.-s. function and state machine, identifying trace of state machine, operation of trace reduction, irredundant identifying trace of state machine.

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