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Abstract
We discuss the means to extract transition-probability from a graphic-based transition diagram. Markov chain k-step process and Monte Carlo simulation are compared with our method, common loop search (CLS), for the same problems. The CLS method is to search and identify the most common loops in the transition graphic, which is very useful for variety optimization techniques in VLSI and communication systems. In this paper, we use a set of asynchronous finite state machines to verify the CLS method. The test results show that our method can run ~4 times faster than the other two methods. Although, the results provided by CLS are not always 100% matching the corresponding simulation results, but they are close enough for optimization purposes after the manual optimization is performed.
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