Abstract

In the continuing research towards characterizing 1-safe Petri nets with n-places and generating all the 2n binary n-vectors as marking vectors exactly once, the problem of determine minimum Petri nets; in the sense that the number of transitions is kept minimum possible for the generation of all the 2n binary n-vectors has been found. In this paper, the existence and uniqueness of a minimum Petri net which generates all the 2n binary n-vectors exactly once has been shown. For brevity, a 1-safe Petri net that generate all the binary n-vectors as marking vectors is called a Boolean Petri net and a 1-safe Petri net that generates all the binary n-vectors exactly once is called crisp Boolean Petri net.

References

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Index Terms

Computer Science

Applied Mathematics

Keywords

1-safe Petri net reachability tree binary n-vector marking vector