Wist, Dominic; Wollowski, Ralf; Schaefer, Mark; Vogler, Walter
Avoiding irreducible CSC conflicts by internal communication. (English) Zbl 1214.68253
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Summary: Resynthesis of handshake specifications obtained e.g. from BALSA or TANGRAM with speed-independent logic synthesis from STGs is a promising approach. To deal with state-space explosion, we suggested STG decomposition; a problem is that decomposition can lead to irreducible CSC conflicts.
Here, we present a new approach to solve such conflicts by introducing internal communication between the components. We give some first, very encouraging results for very large STGs concerning synthesis time and circuit area.

MSC:
68Q85 Models and methods for concurrent and distributed computing (process algebras, bisimulation, transition nets, etc.)
68M99 Computer system organization

Keywords:
STG; decomposition; state-space explosion; CSC; resynthesis; handshake

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