Abstract:
Continuous function chart (CFC) is a graphical-oriented programming language that is widely used as application programs in process industry (e.g. pharmaceutical plants, chemical plants and power plants). The CFC programs have to be validated whether they fulfill the safety requirements that are specified in the control task specifications to verify their correctness before they are being tested by user in the plant. Nowadays, this verification is being done manually. This potentially causes errors and it is very time consuming. In this paper, we present an automatic verification approach to ensure the correctness of the CFC programs. Our verification approach is based on model checking where the CFC programs are modeled into timed automata.

Kongress- / Buchtitel:
Annual Conference of the IEEE Industrial Electronics Society (IECON)

Verlagsort:
Porto, Portugal

Jahr:
2009

Seiten:
2422-2427

Nachgewiesen in:
Scopus; Web of Science

Volltext / DOI:
http://doi.org/10.1109/IECON.2009.5415231

WWW:
Occurences:
- Einrichtungen > Fakultäten > Fakultät für Maschinenwesen > Institut für Mechatronik > Lehrstuhl für Automatisierung und Informationssysteme (Prof. Vogel-Heuser) > 2009

entries: