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Termination detection for active objects. (English) Zbl 1243.68221

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Summary: We investigate deadlock detection for a modeling language based on active objects. To detect deadlock in an actor-like subset of Creol we focus on the communication between the active objects. For the analysis of the model we translate a Creol configuration to a process algebra featuring the Linda coordination primitives. The translation preserves the deadlock behaviour of the model and allows us to apply a formalism introduced by *N. Busi, R. Gorrieri* and *G. Zavattaro* [*Inf. Comput.* 156, No. 1-2, 90-121 (2000; [Zbl 1046.68616](#))] to detect global deadlocks in the process algebra.

MSC:

- [68Q85](#) Models and methods for concurrent and distributed computing (process algebras, bisimulation, transition nets, etc.) Cited in 1 Document
- [68N19](#) Other programming paradigms (object-oriented, sequential, concurrent, automatic, etc.)
- [68N30](#) Mathematical aspects of software engineering (specification, verification, metrics, requirements, etc.)

Keywords:

[deadlock detection](#); [modeling language](#); [active objects](#); [process algebra](#); [global deadlocks](#); [Creol](#)

Software:

[Creol](#); [Rebeca](#)

Full Text: [DOI](#)

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