

Title (en)

AVOIDING LOCKS BY TRANSACTIONALLY EXECUTING CRITICAL SECTIONS

Title (de)

VERMEIDUNG VON VERRIEGELUNGEN DURCH TRANSAKTIONALES AUSFÜHREN KRITISCHER SEKTIONEN

Title (fr)

ELIMINATION DES VERROUS AU MOYEN DE L'EXECUTION TRANSACTIONNELLE DE SECTIONS CRITIQUES

Publication

EP 1913473 A1 20080423 (EN)

Application

EP 06787947 A 20060721

Priority

- US 2006028152 W 20060721
- US 19509305 A 20050801

Abstract (en)

[origin: WO2007015925A1] A system that avoids locks by transactionally executing critical sections. The system receives a program which includes critical sections which are protected by locks. The system modifies the program so that the critical sections are executed transactionally without acquiring locks. The program is modified so that: (1) during transactional execution of a critical section, the program first determines if a lock associated with the critical section is held by another process and if so aborts the transactional execution; (2) if the transactional execution completes without encountering an interfering data access from another process, the program commits changes made during the transactional execution and optionally resumes normal non-transactional execution of the program past the critical section; and (3) if an interfering data access from another process is encountered during transactional execution, the program discards changes made during the transactional execution, and attempts to re-execute the critical section.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

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