

Title (en)

A DATA STRUCTURE AND ITS USE

Title (de)

EINE DATENSTRUKTUR UND DESSEN GEBRAUCH

Title (fr)

STRUCTURE DE DONNEES ET SON UTILISATION

Publication

EP 1105821 A1 20010613 (EN)

Application

EP 99939374 A 19990827

Priority

- DK 9900456 W 19990827
- DK PA199801084 A 19980827
- DK PA199801095 A 19980831
- DK PA199900277 A 19990301

Abstract (en)

[origin: WO0013113A1] A data structure and its use in for example representation, analysis and verification of systems comprising continuous variables. Continuous variables arise in many areas of computer science and mathematics as for example timers or clocks in real-time controllers and digital circuits, sensors in embedded systems, counters in concurrent protocols, variables in configuration problems, and scheduling times in planning and optimization problems. The data structure can represent and decide validity of first order propositional formulas over difference constraints or linear inequalities. The data structure can be used in symbolic model checking of concurrent timed systems modeled as timed automata, timed Petri nets or timed guarded commands. The data structure is preferably embodied as a decision diagram similar to binary decision diagrams (BDDs).

IPC 1-7

G06F 17/50; G06F 17/60; G06F 9/44

IPC 8 full level

G06N 5/00 (2006.01)

CPC (source: EP)

G06N 5/01 (2023.01)

Citation (search report)

See references of WO 0013113A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 0013113 A1 20000309; AU 5369999 A 20000321; EP 1105821 A1 20010613

DOCDB simple family (application)

DK 9900456 W 19990827; AU 5369999 A 19990827; EP 99939374 A 19990827