Title (en)
COMPUTER PROCESSOR CONTROLLER.

Title (de)
RECHNERPROZESSOR-STEUERGERÄT.

Title (fr)
CONTROLEUR DE PROCESSEUR D'ORDINATEUR.

Publication
EP 0164414 A4 19860605 (EN)

Application
EP 85900389 A 19841210

Priority
US 56075983 A 19831212

Abstract (en)
[origin: WO8502698A1] A processor controller (40) for use in a fault-tolerant computer having redundant processors (30 and 32) executing identical programs. Although the programs are identical, the processors will execute instructions at different rates since, for example, the processors are not permitted to access their common bus (36) at the same actual time. The controller receives interrupt signals (42) intended for the processors and presents them to the respective processors at the same position within the program. The controller monitors the position of each processor in its execution of the program, typically by counting addressed strobe signals. In one embodiment, the processor most advanced in the program is halted by the controller until the lagging processor catches up. At that time, the interrupts are simultaneously presented to the processors, and the processors are released. In a second embodiment, the interrupt is forwarded to the leading processor immediately, and the location of the processor in the program is stored. The leading processor then services the interrupt and proceeds in the program. When the lagging processor advances to the same position in the program, it is also notified of the interrupt. The subject controller permits the use of commercially-available application programs with no special modification.

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G06F 15/16; G06F 11/20; G06F 11/16

IPC 8 full level
G06F 11/16 (2006.01)

CPC (source: EP)
G06F 11/1687 (2013.01)

Citation (search report)
- [A] US 4196470 A 19800401 - BERG ERIK L [SE]
- [A] COMPUTER DESIGN, vol. 21, no. 11, November 1982, pages 211,212,215,216,218,220, Winchester, US; J.H. WENSLEY: "Fault tolerant systems can prevent timing problems"
- See references of WO 8502698A1

Designated contracting state (EPC)
AT BE CH DE FR GB LI LU NL SE

DOCDB simple family (publication)
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DOCDB simple family (application)
US 8402011 W 19841210; AU 3746585 A 19841210; EP 85900389 A 19841210