Title (en)

DISTRIBUTIVE, DIGITAL MAXIMIZATION FUNCTION ARCHITECTURE AND METHOD

Publication

EP 0485466 A4 19921216 (EN)

Application

EP 90911963 A 19900530

Priority

US 9003068 W 19900530

Abstract (en)

[origin: WO9119259A1] A maximization architecture includes an array (10) of processor nodes (28, 30, 32, 34) wherein each node has a manipulation unit (40) contained therein. Each node is connected to an input bus (36) and to an output bus (38). A data register (44) is located in each node and contains a data figure, which consists of plurality of segments, or bits, wherein each segment or bit has a value. A maximization mechanism (42) is located in each node and is connected to an arbitration bus (53) which extends between adjacent nodes and an arbitration mechanism (54, 46, 48), which is connected to the arbitration bus (53), for comparing a value of a bit to a signal which is transmitted on the bus and for subsequently transmitting a comparison indicator. Each node includes first (46) and second (48) retainers, which are connected to the arbitration means for retaining the comparison indicator. A flag mechanism (62) is provided and flags the processor node which contains the maximum data figure.

IPC 1-7

G06F 15/18; G06F 15/80; G06F 7/02

IPC 8 full level

G06F 15/18 (2006.01); **G06F 15/80** (2006.01); **G06N 3/04** (2006.01); **G06N 3/063** (2006.01); **G06N 99/00** (2010.01)

CPC (source: EP)

G06F 15/8015 (2013.01); **G06N 3/063** (2013.01)

Citation (search report)

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- [A] EP 0362876 A2 19900411 - HUGHES AIRCRAFT CO [US]
- [A] WO 8801769 A1 19880310 - UNIV COLUMBIA [US]
- [Y] IEEE TRANSACTIONS ON COMPUTERS vol. C-33, no. 2, February 1984, NEW YORK US pages 133 - 139 BOKHARI 'Finding maximum on an array processor with a global bus'
- [A] JOURNAL OF PARALLEL AND DISTRIBUTED COMPUTING vol. 4, no. 6, December 1987, DULUTH, MN US pages 575 - 591 ROTEM 'Analysis of a distributed algorithm for extrema finding in a ring'
- See references of WO 9119259A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

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