Title (en)

TIME-DIVISION MULTIPLEXING METHOD AND CIRCUIT FOR CONCURRENT ACCESS TO A COMPUTER RESOURCE

Title (de)

ZEITMULTIPLEXVERFAHREN UND SCHALTUNG ZUM GLEICHZEITIGEN ZUGRIFF AUF EINE RECHNERRESSOURCE

Title (fr)

PROCÉDÉ ET CIRCUIT DE MULTIPLEXAGE TEMPOREL D'ACCÈS CONCURRENTS À UNE RESSOURCE INFORMATIQUE

Abstract (en)

[origin: WO2020089542A1] The invention relates to a method implemented by computer for arbitration between computer programs seeking to access a shared resource concurrently and each transmitting an access request. The method performs time-division multiple access according to which the time is divided into time slots, each of which is allocated to a critical program for access to the shared resource, each time slot comprising a plurality of time units. The method exploits a processing overhead associated with each critical program in order to delay a processing deadline for an access request transmitted by the critical program. The method comprises, for each unit time, a step of selecting a pending access request and a step of determining authorization for immediate processing of the selected access request. This determining operation comprises, for a unit time which does not correspond to the start of a time slot, when the critical program to which the next time slot is allocated has not transmitted the selected request, authorization for the immediate processing of the selected request if the processing overhead of the critical program to which the next time slot is allocated is greater than a threshold.

IPC 8 full level

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Citation (search report)

See references of WO 2020089542A1

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DOCDB simple family (application)

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