

Title (en)

SYSTEM AND METHOD FOR ROBUST TIME PARTITIONING OF TASKS IN A REAL-TIME COMPUTING ENVIRONMENT

Title (de)

SYSTEM UND VERFAHREN ZUR ROBUSTEN ZEITPARTITIONIERUNG VON TASKS IN EINER ECHTZEIT-DATENVERARBEITUNGSUMGEBUNG

Title (fr)

SYSTEME ET PROCEDE DESTINES A UNE REPARTITION ROBUSTE DES TACHES DANS LE TEMPS A L'INTERIEUR D'UN ENVIRONNEMENT DE CALCUL EN TEMPS REEL

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Application

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Priority

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- US 22339502 A 20020820

Abstract (en)

[origin: WO2004019205A2] A time-partitioned system for accounting for processor time consumed by operating system services provided on behalf of an application runs in a real-time environment. The time utilized by the operating system is treated as application processing time, rather than viewing the resultant processor time consumed as an operating system overhead. Each application consists of one or more threads. Time budget is assigned to each thread and to each interrupt. The processor time consumed by the operating system when executing on behalf of a thread or interrupt is charged back to the application or interrupt as part of the application's time budget. Operating system overheads and processor interrupts are thus accounted for accurately enough to determine a schedule for the applications that is enforceable by the operating system at run time.

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