

PERFORMANCE ISSUES OF RTLinux- A REAL TIME OPERATING SYSTEM

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Abstract

In real time computing, it is essential to characterize the accurate performance and determinism that a particular real time operating system (RTOS) - hardware combination can provide for real-time applications. This issue is not effectively addressed by existing performance metrics mainly due to lack of completeness and generalization. This paper deals with the models of distributed hard real time systems, their requirement specifications, performance criteria for RTOS with specifications for RTLinux which is a major operating system for embedded applications. It also describes the OS support for real time application environment to support RTLinux and the issues to be investigated regarding embedded real time systems.

Keywords: Real-time, Dependability, RTD channels, Hard real-time operating systems