A New Proposed Dynamic Quantum with Re-Adjusted Round Robin Scheduling Algorithm and Its Performance Analysis

Abstract

Scheduling is the central concept used frequently in Operating System. It helps in choosing the processes for execution. Round Robin (RR) is one of the most widely used CPU scheduling algorithm. But, its performance degrades with respect to context switching, which is an overhead and it occurs during each scheduling. Overall performance of the system depends on choice of an optimal time quantum, so that context switching can be reduced. In this paper, we have proposed a new variant of RR scheduling algorithm, known as Dynamic Quantum with Re-adjusted Round Robin (DQRRR) algorithm. We have experimentally shown that performance of DQRRR is better than RR by reducing number of context switching, average waiting time and average turnaround time.

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**Index Terms**

Computer Science
Operating Systems

**Key words**

Round Robin Scheduling
Context Switching
Waiting Time
Turnaround Time
