An Effective Dynamic Quantum Round Robin (EDQRR) CPU Scheduling Algorithm

Abstract

Processor scheduling is one of the primary tasks of time-sharing operating systems. The main goal behind CPU scheduling algorithm is to identify the process and assign it to CPU that will give the best possible system performance. In this report, a dynamic approach is presented for Round Robin CPU scheduling. Here a modified concept of dynamic quantum for each round is designed to achieve lesser average waiting time, lesser average turnaround time and lesser number of context switching as an improved feature to conventional Round Robin scheme and also a few number of existing schemes. The comparative study of processing performance clearly shows that the proposed scheme gives approximate [15 -20]% better result than few related recent works.

References

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Index Terms

Computer Science
Algorithms

Keywords
Dynamic time quantum, average turnaround time, average waiting time, context switching