Improving Round Robin Process Scheduling Algorithm

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 166 - Number 6

Year of Publication: 2017

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10.5120/ijca2017914034

Abstract

Round Robin Algorithm is used for process scheduling by assigning a fixed time quantum to every process which has to be executed. In this type of process scheduling, each process waiting in a ready queue is executed for a particular time quantum. If the burst time of the process is finished in one go then the process is removed from the ready queue. Otherwise, it is returned to the ready queue for its next quantum turn. In our proposal, we have calculated a dynamic time quantum for a process which fits to certain dynamically calculated conditions that we have defined later in the module due to which parameters like average turnaround time, average waiting time and the numbers of context switches have been decreased as compared to the standard Round Robin.

References

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Index Terms

Computer Science Algorithms

Keywords

Turnaround time, Waiting time, context switches, CPU Scheduling, time quantum.