

## Abstract

Timesharing is one of algorithm that used by Linux. In Linux Timesharing every process given time slice based on priority of process, higher priority get bigger time slice. On the reality process with high priority usually is I/O bound process, and process with small priority usually is CPU bound process. It can trigger context switch too often and can reduce the performance of CPU.

The main problem in using time slice or quantum is define the size, because if size too big can cause big response time and turnaround time, so this algorithm work the same like FIFO scheduling algorithm, and if quantum too small can cause too much context switch and reduce the efficiency of process. Dynamic Round Robin be expected to solve the problem of determining *quantum*, because this algorithm can estimate the optimum time quantum for each process queue and change every new process queue created.

In this final assignment do analysis on Dynamic Round Robin algorithm performance compared with Linux Timesharing. From tests performed known that Dynamic Round Robin better on response time parameter in the condition I/O bound more than 40% and can minimalize occurrence of starvation on low priority process compared with Linux Timesharing, but this algorithm is less in NTAT parameter where this parameter is the most important parameter in measuring performance of scheduling algorithm. NTAT parameter value output from Dynamic Round Robin algorithm always bigger than Linux Timesharing, this can be meant that over all Dynamic Round Robin algorithm give not quite good service to process.

**Keywords:** scheduling algorithm, round robin algorithm, dynamic round robin algorithm, linux scheduling, cpu scheduling.