

Virtual Memory Management

Our objective was to simulate and analyze the performance of page replacement techniques: LRU, clock, and FIFO by varying the page size. The following algorithms were implemented.

FIFO, LRU, Clock

The following features were implemented

1. Variable page size 2. Local & Global Page Replacement Strategies 3. Prepaging

LRU algorithm for page replacement gives the minimum number of page faults in comparison to the other algorithms such as FIFO and Clock. FIFO and Clock algorithms thus go by Belady's anomaly, thereby showing a peak in the middle of decreasing curve. Global page replacement policy seems to work more efficiently as compared to local page replacement policy, as it is free to select any page from memory. On the whole, algorithms with global page replacement policy and prepaging enabled show the minimum number of page faults as compared to other possible combinations of both with LRU giving the least number of page faults.