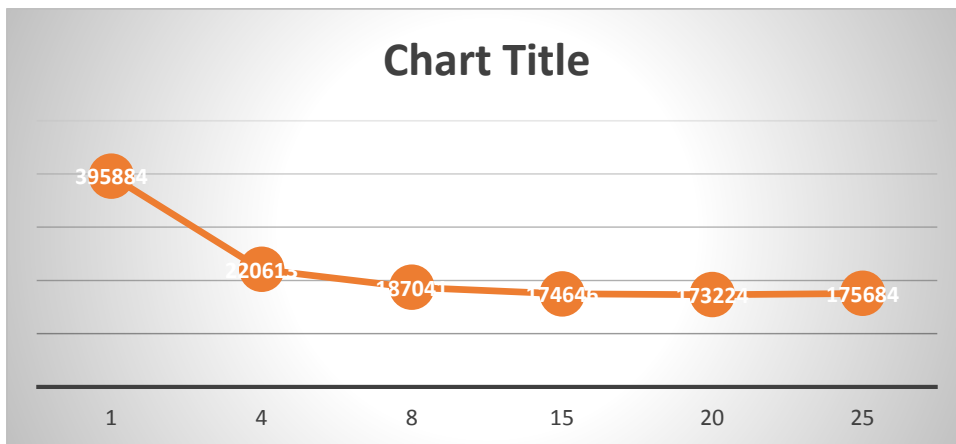


Eliyahu Friedman

To find a good refresh rate for the NRU algorithm I just used guess and check to see what worked best. The chart below is the results of my testing of the algorithm using 8 frames. As you can tell when I used the refresh rate of 20 I got the lowest number of page faults. To test with the rest of the frame numbers I had to use the same guess and check method and the best approximate rates I came up with were: for 16 frames – a refresh rate of 60, for 32 frames – a refresh rate of 200, and for 64 frames – 450. These are the values I used when testing my algorithm to create the graphs at the bottom of the page.



In the graphs below I portray the resulting page fault statistics for each of the specified frame sizes. For the tick rate in the Aging algorithm I used the frame number. In every test the Aging algorithm had the lowest amount of page faults (excluding Opt, obviously). So based on just number of page faults Aging has the advantage. However, after taking a look at the amount of frames written to disk by each algorithm NRU has the advantage, having about 22% less files written out than Aging. (With 8 and 64 frames NRU has about 7,000 and 18,500, while Aging has about 9,000 and 23,000). I would probably pick NRU over aging because the difference between their page fault numbers is not really substantial and I think the number of written out files will have a greater effect on the overall runtime of my Virtual Memory management.

