

HW9 Question 3 Documentation and Testing

Documentation:

This program creates two virtual cache simulators and two trace simulators – each initially identical (AKA a 2-way set associative cache model). One is for ver1.txt and the other is for ver2.txt. I then go through and simulate the trace on each virtual cache object.

To calculate time cost, I've assigned each miss a value of "50 time units" and each hit a value of "1 time unit". Then at the end of the C program, I compare the hypothetical total cost (in time units) of each trace.

For further explanation and details, see inline comments in the code and my response in q3_response.txt.

Note: in order to run the code appropriately, you need to add ver1.txt and ver2.txt as the command line arguments in that order. eg:

```
./Q3 ver1.txt ver2.txt > q3_output.txt
```

Testing:

I couldn't test the validity of my results, but given the accuracy of my testing in q1, I've taken the coherent, principled results (as explain in my "q2_response" document) to indicate that I completed this question successfully.