

## TWO WAY MERGE SORT

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### Configuration of a system:

Main Memory : 6Gb

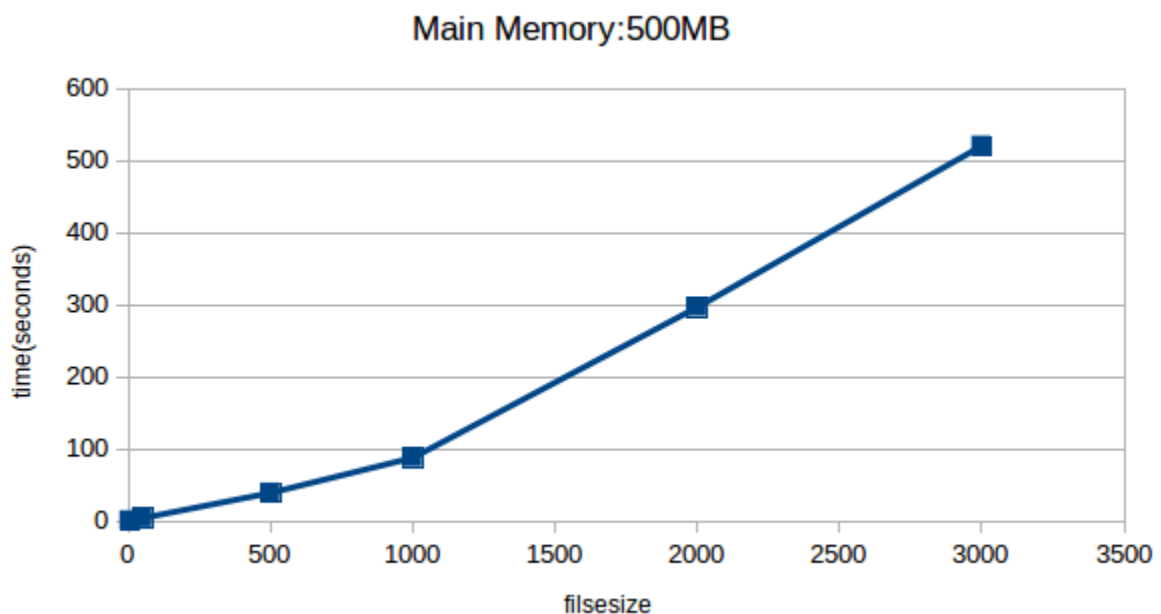
Quad Core i5 Processor.

### Observations:

Sorting done in the order of c0,c1

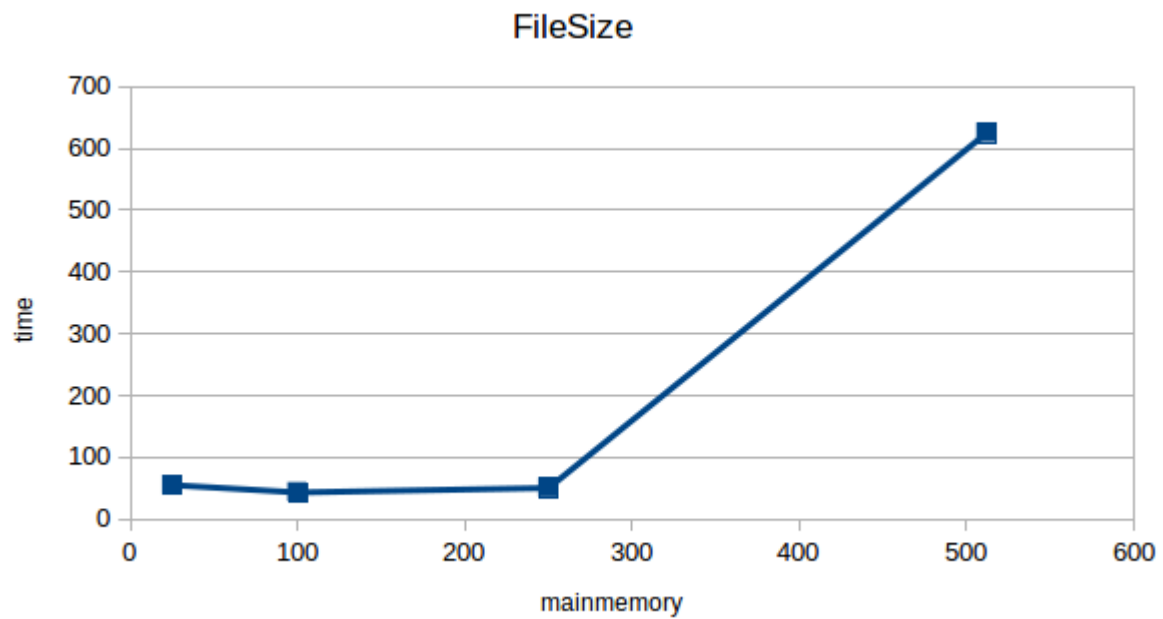
Main memory=100MB

FILE SIZE(MB)	TIME(Real time)(seconds)
5	0.721
50	4.150
500	36.154
1000	83.973
2000	290.712
3000	530.156



File Size=512MB

MAIN MEMORY(MB)	TIME(User Time)(sec)
25	50.848
100	45.134
250	35.153
512	32.804



**EXPLANATION:**

Code Explanation:

## **FIRST MERGE SORT**

dividing in to sublists and writing in to new created files.where max number of records is main memory size/tuplesize.this takes one disk i/o.Used merge sort to sort all the records.

## **SECOND MERGE SORT**

Using filepointers got all elements in to new list.From that list finding minimum and writing to output file.Updating the list according to minimum.

Buffer size=size of one tuple.