Sorting Competition Group 3

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About

Times:

Run 1: 559 ms
Run 2: 1189 ms

Algorithm
Merge sort

Place:
11

Data Representation

The Data was represented as a two dimensional array of integers.

Algorithm Used

The Algorithm that I used was a classic tail recursive top Down version of merge sort.

There were no changes to the algorithm used.

Sorting Efficiency

Big Theta: nlogn

Constants

$$C(3 + 2(n))$$

C = number of times the algorithm runs

N = number of times the for loop runs

Extra Memory:

Variable definitions such as leftPointer, rightPointer, and middle.

Correctness analysis

No concerns were raised during the correctness analysis.

Possible changes

- Once the data reaches a certain size possibly switch to a different sorting algorithm
- Reduce the number of distance calculation done by checking if a point was within a radius of a circle around each point.