

Enhanced divide-and-conquer algorithm with 2-block policy

ABSTRACT

The number of comparisons involved in searching minimum and maximum elements from a set of data will determine the performance of an algorithm. A Divide-and-Conquer algorithm is the most efficient algorithm for searching minimum and maximum elements of a set of data of any size. However, the performance of this algorithm can still be improved by reducing the number of comparisons of certain sets of data. In this paper a 2-block (2B) policy under the divide-and-conquer technique is proposed in order to deal with this problem. On the basis of this policy, the divide-and-conquer algorithm is enhanced. It is shown that the performance of the proposed algorithm performs equally at par when compared with the established algorithm of data size of power of two and better when compared with data size of not a power of two.

Keyword: Algorithm; Divide-and-conquer; Performance; Recursive