

CLASSIC SORTING ALGORITHMS IN OPENMP AND MPI

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Abstract

This paper presents results of a survey on parallel programming paradigms in control flow machines. Herewith is analyzed, compared and classified the different parallel programming methodologies for algorithms of array sorting. The platforms in which this paper investigates more are OpenMP and MPI. Also the hardware architecture of the platforms mentioned is taken in consideration in this paper. The classical sorting algorithms like Bubble Sort and Quick sort are programmed in both platforms to see the characteristics and to compare the two platforms. The decision when to use those platforms is very important, because sometimes it can bring to time consumption. Some methodological aspects of the parallel programming components are treated herewith as well.

Keywords: *Parallel Programming, Sorting Algorithms, Quick Sort, OpenMP, MPI library, Shared Memory Computing, Multicomputing.*