PARALLEL MATRIX-MULTIPLICATION ALGORITHM
ON NETWORK OF WORKSTATIONS

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Matrix multiplication is one of the important operations in scientific and engineering application. However, it is also one of the operations that are time consuming. Continuous researches have been conducted to improve this operation. One of the alternatives is to have the operation performed in parallel. However, these types of algorithms often carried out on expensive supercomputers or multiprocessing systems. With the advancement of personal computers and networking, the use of network of computers has become an advantage to the computing community. Although programming in such environment is relatively harder compared to that of in shared memory multiprocessing environment, its advantages outweigh its complexity. In this paper, we introduce the concept of Network of Computers (NOW) or Cluster computing and present its advantages. We discuss matrix-multiplication algorithm and highlight one of the parallel matrix-multiplication algorithms. We present the comparison in terms of speed between serial algorithm and the parallel algorithm when we run them on our cluster. We end our discussion by outlining our future works.

Keywords: Matrix-Multiplication, Parallel Computing, Cluster.