Practical 4 - Message Passing Interface

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***Abstract*—**

I. Introduction

Message Passing Interface (MPI) is a standardized and portable message-passing system. The standard only defines the expected syntax and semantics and not the implementation itself. MPI is used to facilitate the communication of distributed computational devices, each with their own memory. Thus, there is no shared global memory and all communication has to be done explicitly via messags. Thus, MPI is a communications protocol for programming parralele computers. In this paper, a test envrionment is emulated on a local machine to explore the uses of MPI. Experiments are run to explore and undercover differences between the the use of shared memory (As done via Threading) and the use of MPI.

II. Methodology

A. Data Partitioning

B. Sending Data to Slaves

C. Reassembly

D. Performance

III. Results

A. MPI vs Threading

B. Performance

IV. Conclusion

References