

Lab 09

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Questions

- (a) It might be useful to have purely sequential, single processor, I/O routines to ensure that the parallel environment is running properly.
- (b) The study to be performed is a weak scalability study because as the problem size N goes up, the number of processors increases as well. The tests to be run will be the timing test where the amount of time for each of the corresponding write/read functions will be timed. The number of files that will be read/written is 25 for the 3 different pairs of read/write, resulting in 75 files read/written, of size 513, 1025, 32769, 1048577, 33554433 (+1 to account for the header).
- (c) N/A
- (d) Plot operations...I was not able to plot the curves. However, I expect the MPI I/O operations to be faster.
- (e) No anomalies in my result. However, I was not able to properly implement the `c_mpi_read_Vector()` function. I kept getting a seg fault and I spent hours trying to debug it to no avail. I was able to successfully implement the `mpi_write_Vector()` and it worked fine when I ran the test on it.
- (f) No assistance received on this assignment.