Simple Parallel Data Structures-4 continues
by
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1. Exercise: Using nonblocking operations

In this exercise, use the non-blocking point-to-point routines instead of the blocking routines. Replace the MPI_Send and MPI_Recv routines with MPI_Isend and MPI_Irecv, and use MPI_Wait or MPI_Waitall to test for completion of the nonblocking operations.

You may want to use these MPI routines in your solution:
MPI_Isend MPI_Irecv MPI_Waitall

2. Exercise: Shifting data around

Replace the MPI_Send and MPI_Recv calls in your solution with two calls to MPI_Sendrecv. The first call should shift data up; that is, it should send data to the processor above and receive data from the processor below. The second call to MPI_Sendrecv should reverse this; it should send data to the processor below and receive from the processor above.

You may want to use these MPI routines in your solution:
MPI_Sendrecv
----------Supervised lab work ends here----------

3. Exercise: Exchanging data with MPI_Sendrecv (to be attempted at home as part of the weekly study hours)

n this exercise, use MPI_Sendrecv to exchange data with the neighboring processors. That is, processors 0 and 1 exchange, 2 and 3 exchange, etc. Then 1 and 2 exchange, 3 and 4, etc. This "head-to-head" exchange may be more efficient on some systems.

You may want to use these MPI routines in your solution:
MPI_Sendrecv