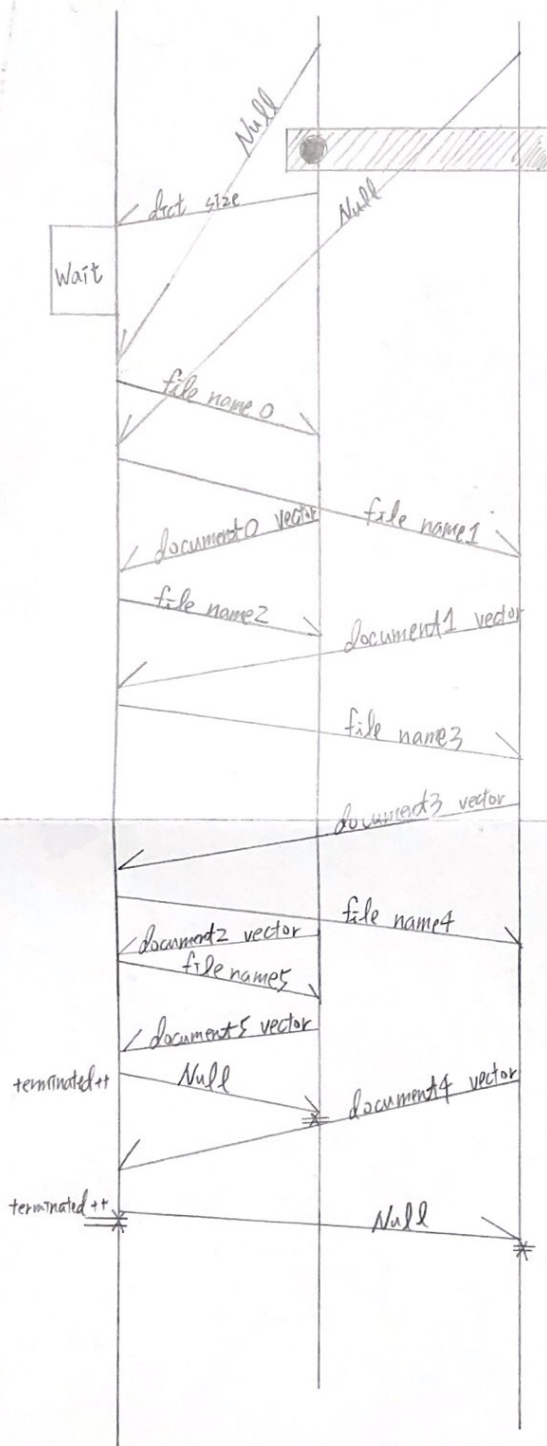


Manager

Worker 0

Worker 1



Q1. Explain why the program uses non-blocking MPI functions.

Ans: If use blocking send / receive would force the program to halt until the message is fully sent / received. Additionally, non-blocking functions allow communication and computation to overlap.

Q2. Explain why there is no dead-lock problem.

Ans: In this program, the manager sends document paths and receives vectors, while workers receives paths and send vectors. There is no cyclic dependency. However, if the manager is storing a large document vector while other works simultaneously send document vectors to the manager, the system buffer become full, potentially causing a dead-lock.