

High-level Design

The synchronization are implemented by three components:

- Mutex lock: making sure no 2 processes accessing the same data at the same time
- Empty socket: Hold the consumers on wait while the buffer is empty
- Full socket: Hold the producers on wait while the buffer is full

1. What aspect of thread manipulation did you find most difficult to understand?

I find the thread manipulation is easy to use in general

2. What aspect of thread manipulation did you find least difficult to understand?

I was easy to understand in general

3. What aspect of thread synchronization did you find most difficult to understand?

First I have trouble understanding what are we waiting and signaling, but after reading their structure, it all makes sense.

4. What aspect of thread synchronization did you find least difficult to understand?

Creating a thread by passing a function's name

5. What, if anything, would you change in your current design?

There is not really anything I would want to modify

6. What, if anything, did you find interesting or surprising about thread manipulation or thread synchronization that you did not know before doing this project?

Synchronization using semaphore.