

Producer-Consumer Problem

Common solution:

Full: when `“(in + 1)%BUFFER_SIZE == out”`

Actually, this is `“full - 1”`

Empty: when `“in == out”`

Can only use `“BUFFER_SIZE - 1”` elements

Shared data:

```
1  #define BUFFER_SIZE 6
2  typedef struct {
3      /* ... */
4  } item;
5  item buffer[BUFFER_SIZE];
6  int in = 0; //the next free position
7  int out = 0; //the first full position
```