

Dan Hervé

Comparison of #3 and #4

Switching the `pthread_create`s so that the `condp` was made first did have an effect. It seems that both threads are paired in a first/second relationship, where the first created thread is always run through in order to check its wait condition. With `condp` first, the “Producer waiting” message displays before the “Consumer activates” message each time, rather than the consumer just looping until it meets its own wait condition.

Output:

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 22

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 21

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 20

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 19

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 18

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 17

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 16

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 15

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 14

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 13

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 12

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 11

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 10

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 9

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 8

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 7

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 6

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 5

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 4

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 3

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 2

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 1

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 0

Producer produces; buffer is full up to position: 99

Producer activates

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 98

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 97

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 96

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 95

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 94

Producer waiting

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Consumer consumes; buffer is full up to position: 93

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Consumer consumes; buffer is full up to position: 6

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 5

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 4

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 3

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 2

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 1

Producer waiting

Consumer activates

Consumer consumes; buffer is full up to position: 0

Producer produces; buffer is full up to position: 100