Concurrent ML

Exercise 4: Buffers with Variable Maximum Lengths

1 Goal

Modify the version of our implementation of buffers with fixed maximum lengths that uses selective communicatation, so as to include two additional functions:

```
(* lenEvt buf returns an event that, when synchronized with, will
   yield the current length of buf *)

val lenEvt : 'a buffer -> int CML.event

(* newMaxLenEvt buf n returns an event, that when synchronized with,
   will attempt to set the maximum length of buf to n

   this attempt will succeed, resulting in the value true,
   if the current length of buf is no more than n

   this attempt will fail, resulting in the value false,
   if the current length of buf is strictly greater than n *)

val newMaxLenEvt : 'a buffer -> int -> bool CML.event
```

Only use the features of CML that we've discussed so far.

2 Submission

Bring a copy of your program, or as much of it as you are able to write, to Monday afternoon's exercise session, and also make it available on the WWW. Be prepared to talk about your solution during the exercise session.