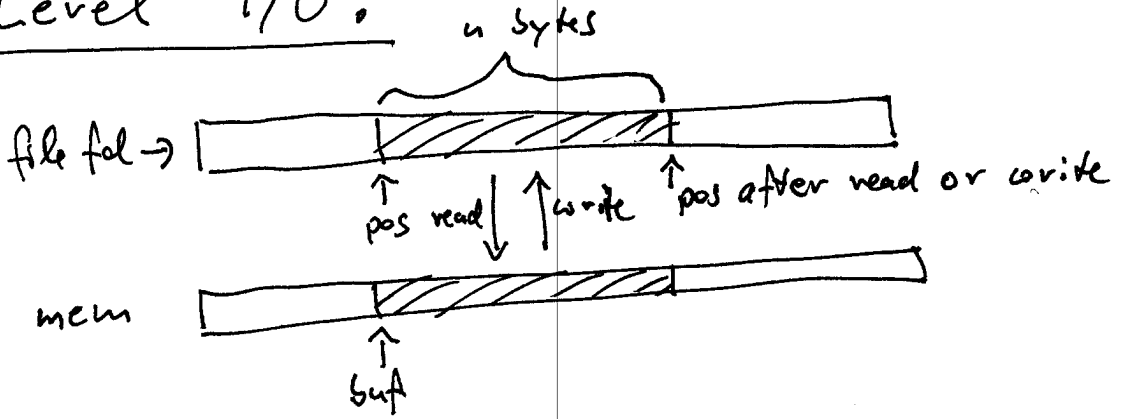
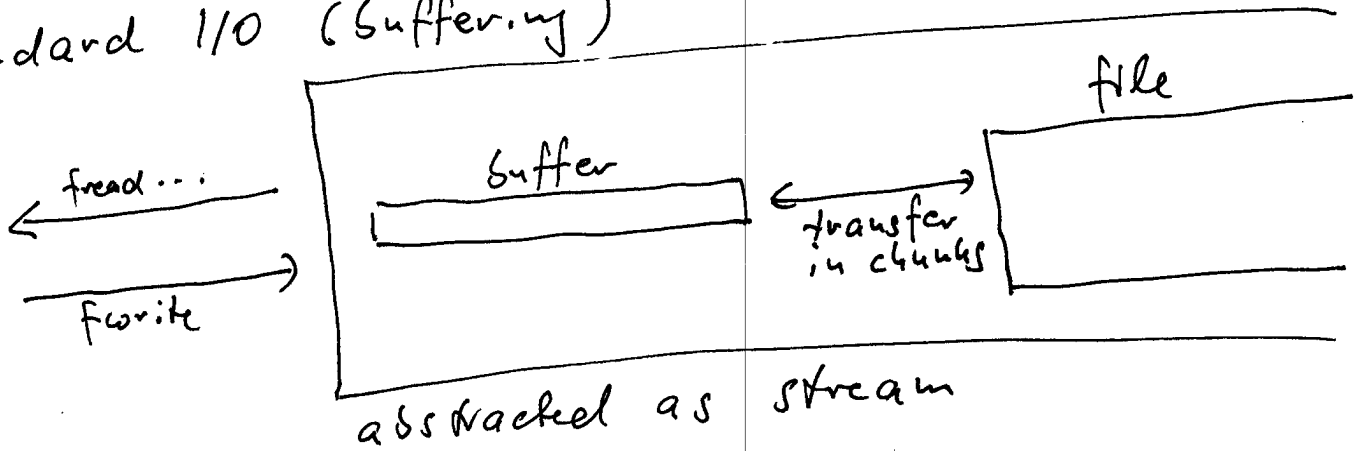


System-Level I/O:

1.) read/write:

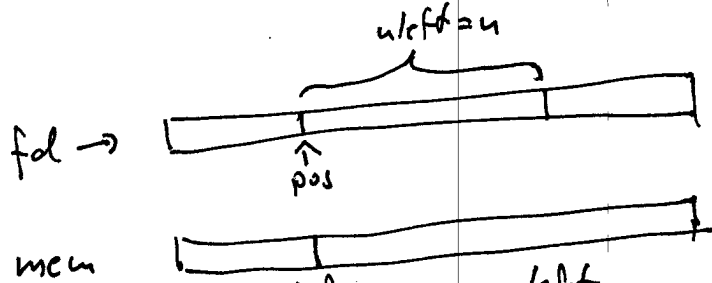


2.) Standard I/O (buffering)

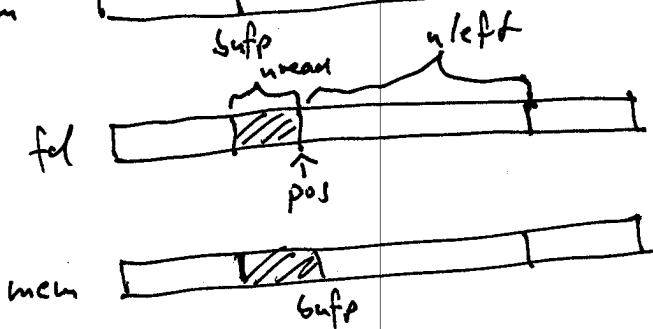


3.) rio_read :

initial:



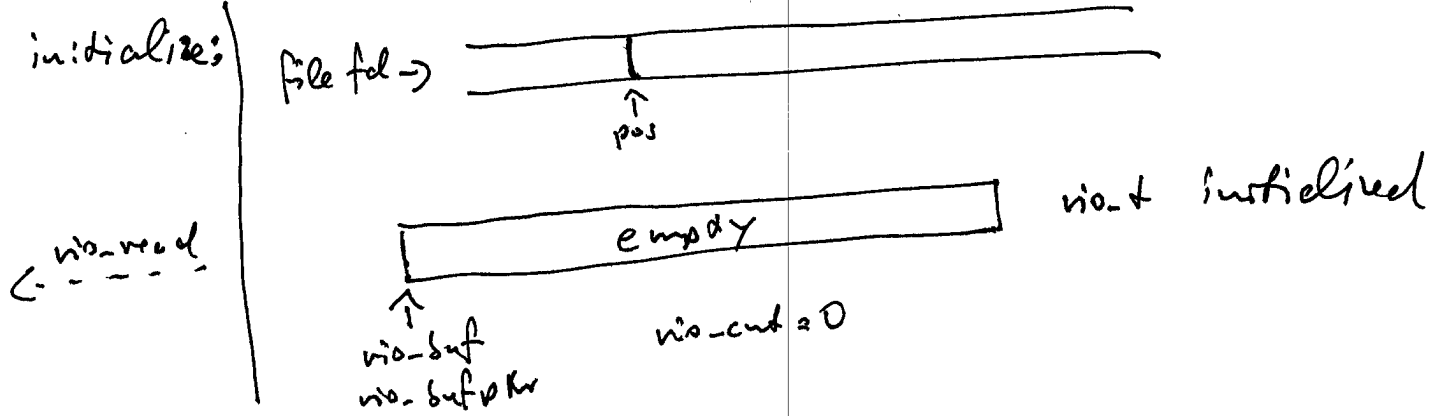
after short cond:
($nread < n$)



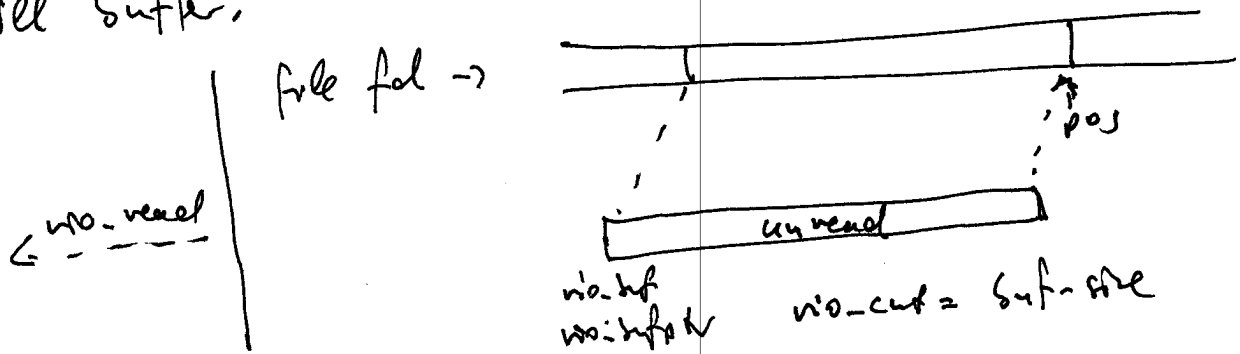
repeated until $nleft = 0$

4.) `no_read`, `no_read_us` (suffered read):
`no_read` is bytes, `us` small:

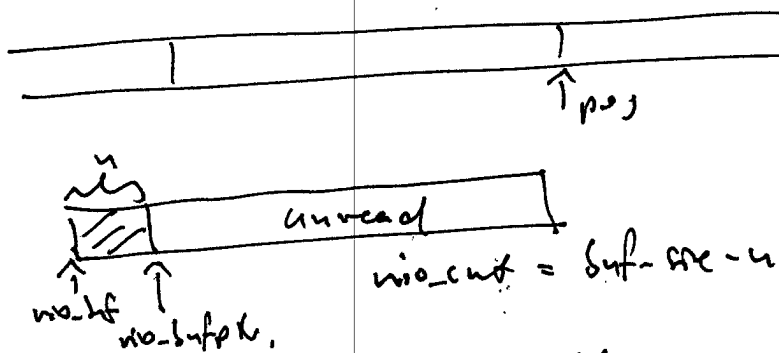
a.) initialize:



b.) fill buffer:



c.) full fill read:



future requests: full filled from buffer
 once `no_cnt < u`: - `no_read` returns short count
 - `no_read_us` wraps `no_read`
 to fulfill request

