Repeat and Count so Long as Words Match

first word

buf1

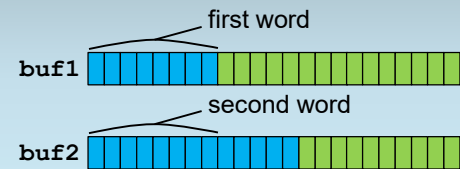second word
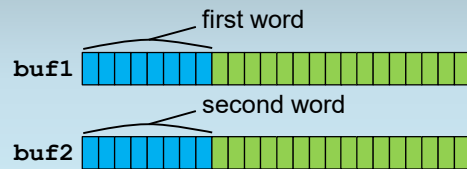
buf2

Next, **compare the words**.
If words are the **same**,
◦ **add one to count** (2 with first match)
◦ and **read into buf2** again.

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Copy a Word When a Mismatch is Found?

first word

buf1

second word

buf2

What if the words are different?
Copy buf2 into buf1
and reset count to 1?
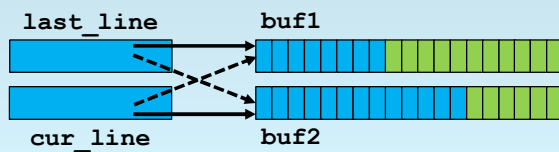That approach does work …

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Use Double Buffering to Avoid Copying Strings

Instead, let's use double buffering!
Create two pointers to buffers.
Initialize as shown.
Instead of copying, **swap the pointers**!

last_line   **buf1**

cur_line   **buf2**

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Double Buffering Has Many Applications

Example: **graphics**
◦ Write each frame a separate 'screen.'
◦ Swap 'screen' pointers to display.
◦ **Avoid flicker** due to writing to active display.
Example: **Linux serial driver**
◦ Interrupt handler reads input into a buffer.
◦ Swap buffer pointers when program reads data.
◦ **Avoid complex synchronization** for access.

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