

Write Out the Word and Reset the FSM

```
*write = 0;
puts (buf);
```

Write current word to **stdout** (with a newline).

```
write = buf;
word_len = 0;
```

Reset FSM to "no word yet" state.

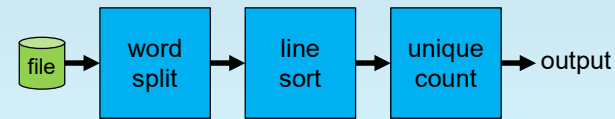
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Already Made Some Decisions for Line Sort

Now on to line sorting...

Remember these decisions:

- a **word** is no more than **500 characters**,
- no more than **5,000 lines/words**, and
- use **insertion sort**,



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Line Sort Consists of Three Parts: Read, Sort, Print

Line sort **decomposes into three parts**:

- **read lines** from **stdin** into an array
- **sort lines** using insertion sort
- **print lines** to **stdout**.

Line sort's **main** simply

- checks the command line invocation, then
- calls three functions
- corresponding to the tasks above.

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Line Sort Uses Array of `char*` with Dynamic Strings

Line sort **reads lines**

- **using fgets** from **stdin** into a buffer, then
- dynamically **allocates a copy** with **strdup**
- and **stores** the new pointer
- **into an array of `char*`**.

Line sort does not **free** the lines.

- Program memory discarded at termination,
- but be careful.

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