

Start with the Word Split Program

Ready to write some code?

Let's start with `word_split.c`.

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Start of `word_split.c` and Some Local Variables

```
static const
    int32_t max_word_len = 500;
int main (int argc, char* argv[])
{
    char    buf[max_word_len + 1];
    char*   write;
    int32_t word_len;
}
```

Annotations:

- `max_word_len = 500`: limit on word size
- `argv[]`: command-line arguments
- `buf[max_word_len + 1]`: include space for NUL
- `write`: next char in buf to write
- `word_len`: current word length

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Remaining Local Variables for Input Stream

```
FILE*   in_file;
int32_t a_char;

if (2 != argc) {
    fprintf (stderr,
            "syntax: %s <file name>\n",
            argv[0]);
    return EXIT_BAD_ARGS;
}
```

Annotations:

- `in_file`: input stream (a file)
- `a_char`: one character read from input stream

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Start by Checking Command Syntax

```
FILE*   in_file;
int32_t a_char;

if (2 != argc) {
    fprintf (stderr,
            "syntax: %s <file name>\n",
            argv[0]);
    return EXIT_BAD_ARGS;
}
```

Annotations:

- `EXIT_BAD_ARGS`: must be called with two arguments
- `stderr`: error messages sent to `stderr`
- `argv[0]`: the program's name
- `EXIT_BAD_ARGS`: Lumetta's favorite return value for bad arguments (enumerated, not 0)

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