

fgetc, getc

Defined in header <stdio.h>

```
int fgetc( FILE *stream );    (1)
```

```
int getc( FILE *stream );    (2)
```

- 1) Reads the next character from the given input stream.
- 2) Same as fgetc, except that if getc is implemented as a macro, it may evaluate stream more than once, so the corresponding argument should never be an expression with side effects.

Parameters

stream - to read the character from

Return value

On success, returns the obtained character as an `unsigned char` converted to an `int`. On failure, returns EOF.

If the failure has been caused by end-of-file condition, additionally sets the *eof* indicator (see feof()) on stream. If the failure has been caused by some other error, sets the *error* indicator (see ferror()) on stream.

Example

Run this code

```
#include <stdio.h>
#include <stdlib.h>

int main(void)
{
    int is_ok = EXIT_FAILURE;
    const char* fname = "/tmp/unique_name.txt"; // or tmpnam(NULL);
    FILE* fp = fopen(fname, "w+");
    if(!fp) {
        perror("File opening failed");
        return is_ok;
    }
    fputs("Hello, world!\n", fp);
    rewind(fp);

    int c; // note: int, not char, required to handle EOF
    while ((c = fgetc(fp)) != EOF) { // standard C I/O file reading loop
        putchar(c);
    }

    if (ferror(fp)) {
        puts("I/O error when reading");
    } else if (feof(fp)) {
        puts("End of file reached successfully");
        is_ok = EXIT_SUCCESS;
    }

    fclose(fp);
    remove(fname);
    return is_ok;
}
```

Possible output:

```
Hello, world!
End of file reached successfully
```

References

- C17 standard (ISO/IEC 9899:2018):

- 7.21.7.1 The `fgetc` function (p: 240-241)
- 7.21.7.5 The `getc` function (p: 242)
- C11 standard (ISO/IEC 9899:2011):
 - 7.21.7.1 The `fgetc` function (p: 330)
 - 7.21.7.5 The `getc` function (p: 332)
- C99 standard (ISO/IEC 9899:1999):
 - 7.19.7.1 The `fgetc` function (p: 296)
 - 7.19.7.5 The `getc` function (p: 297-298)
- C89/C90 standard (ISO/IEC 9899:1990):
 - 4.9.7.1 The `fgetc` function
 - 4.9.7.5 The `getc` function

See also

getchar	reads a character from stdin (function)
gets (removed in C11) gets_s (C11)	reads a character string from stdin (function)
fputc putc	writes a character to a file stream (function)
ungetc	puts a character back into a file stream (function)

C++ documentation for **fgetc**, **getc**

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