

**NAME**

fputc, fputs, putc, putchar, puts – output of characters and strings

**SYNOPSIS**

```
#include <stdio.h>

int fputc(int c, FILE *stream);
int fputs(const char *s, FILE *stream);
int putc(int c, FILE *stream);
int putchar(int c);
int puts(const char *s);
```

**DESCRIPTION**

**fputc()** writes the character *c*, cast to an *unsigned char*, to *stream*.

**fputs()** writes the string *s* to *stream*, without its terminating null byte ('\0').

**putc()** is equivalent to **fputc()** except that it may be implemented as a macro which evaluates *stream* more than once.

**putchar(c)** is equivalent to **putc(c, stdout)**.

**puts()** writes the string *s* and a trailing newline to *stdout*.

Calls to the functions described here can be mixed with each other and with calls to other output functions from the *stdio* library for the same output stream.

For nonlocking counterparts, see [unlocked\\_stdio\(3\)](#).

**RETURN VALUE**

**fputc()**, **putc()** and **putchar()** return the character written as an *unsigned char* cast to an *int* or **EOF** on error.

**puts()** and **fputs()** return a nonnegative number on success, or **EOF** on error.

**ATTRIBUTES**

For an explanation of the terms used in this section, see [attributes\(7\)](#).

Interface	Attribute	Value
<b>fputc()</b> , <b>fputs()</b> , <b>putc()</b> , <b>putchar()</b> , <b>puts()</b>	Thread safety	MT-Safe

**CONFORMING TO**

POSIX.1-2001, POSIX.1-2008, C89, C99.

**BUGS**

It is not advisable to mix calls to output functions from the *stdio* library with low-level calls to [write\(2\)](#) for the file descriptor associated with the same output stream; the results will be undefined and very probably not what you want.

**SEE ALSO**

[write\(2\)](#), [ferror\(3\)](#), [fgets\(3\)](#), [fopen\(3\)](#), [fputc\(3\)](#), [fputs\(3\)](#), [fseek\(3\)](#), [fwrite\(3\)](#), [putwchar\(3\)](#), [scanf\(3\)](#), [unlocked\\_stdio\(3\)](#)

**COLOPHON**

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