

**NAME**

**fgetc**, **getc**, **getc\_unlocked**, **getchar**, **getchar\_unlocked**, **getw** - get next character or word from input stream

**LIBRARY**

Standard C Library (libc, -lc)

**SYNOPSIS**

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

```
int
```

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

```
int
```

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

```
int
```

```
getc_unlocked(FILE *stream);
```

```
int
```

```
getchar(void);
```

```
int
```

```
getchar_unlocked(void);
```

```
int
```

```
getw(FILE *stream);
```

**DESCRIPTION**

The **fgetc()** function obtains the next input character (if present) from the stream pointed at by *stream*, or the next character pushed back on the stream via **ungetc(3)**.

The **getc()** function acts essentially identically to **fgetc()**, but is a macro that expands in-line.

The **getchar()** function is equivalent to **getc(stdin)**.

The **getw()** function obtains the next *int* (if present) from the stream pointed at by *stream*.

The **getc\_unlocked()** and **getchar\_unlocked()** functions are equivalent to **getc()** and **getchar()** respectively, except that the caller is responsible for locking the stream with **flockfile(3)** before calling

them. These functions may be used to avoid the overhead of locking the stream for each character, and to avoid input being dispersed among multiple threads reading from the same stream.

## RETURN VALUES

If successful, these routines return the next requested object from the *stream*. Character values are returned as an *unsigned char* converted to an *int*. If the stream is at end-of-file or a read error occurs, the routines return EOF. The routines `feof(3)` and `ferror(3)` must be used to distinguish between end-of-file and error. If an error occurs, the global variable *errno* is set to indicate the error. The end-of-file condition is remembered, even on a terminal, and all subsequent attempts to read will return EOF until the condition is cleared with `clearerr(3)`.

## SEE ALSO

`ferror(3)`, `flockfile(3)`, `fopen(3)`, `fread(3)`, `getc(3)`, `putc(3)`, `ungetc(3)`

## STANDARDS

The `fgetc()`, `getc()`, and `getchar()` functions conform to ISO/IEC 9899:1990 ("ISO C90"). The `getc_unlocked()` and `getchar_unlocked()` functions conform to IEEE Std 1003.1-2001 ("POSIX.1").

## HISTORY

The `getc()` and `getw()` functions appeared in a similar form in Version 1 AT&T UNIX; and were integrated into `stdio` in Version 7 AT&T UNIX; `getchar()` in Version 4 AT&T UNIX; and `fgetc()` in Version 7 AT&T UNIX.

## BUGS

Since EOF is a valid integer value, `feof(3)` and `ferror(3)` must be used to check for failure after calling `getw()`. The size and byte order of an *int* varies from one machine to another, and `getw()` is not recommended for portable applications.