

**NAME**

fgetpos, fseek, fsetpos, ftell, rewind – reposition a stream

**LIBRARY**

Standard C library (*libc*, *-lc*)

**SYNOPSIS**

```
#include <stdio.h>

int fseek(FILE *stream, long offset, int whence);
long ftell(FILE *stream);

void rewind(FILE *stream);

int fgetpos(FILE *restrict stream, fpos_t *restrict pos);
int fsetpos(FILE *stream, const fpos_t *pos);
```

**DESCRIPTION**

The **fseek()** function sets the file position indicator for the stream pointed to by *stream*. The new position, measured in bytes, is obtained by adding *offset* bytes to the position specified by *whence*. If *whence* is set to **SEEK\_SET**, **SEEK\_CUR**, or **SEEK\_END**, the offset is relative to the start of the file, the current position indicator, or end-of-file, respectively. A successful call to the **fseek()** function clears the end-of-file indicator for the stream and undoes any effects of the **ungetc(3)** function on the same stream.

The **ftell()** function obtains the current value of the file position indicator for the stream pointed to by *stream*.

The **rewind()** function sets the file position indicator for the stream pointed to by *stream* to the beginning of the file. It is equivalent to:

```
(void) fseek(stream, 0L, SEEK_SET)
```

except that the error indicator for the stream is also cleared (see **clearerr(3)**).

The **fgetpos()** and **fsetpos()** functions are alternate interfaces equivalent to **ftell()** and **fseek()** (with *whence* set to **SEEK\_SET**), setting and storing the current value of the file offset into or from the object referenced by *pos*. On some non-UNIX systems, an *fpos\_t* object may be a complex object and these routines may be the only way to portably reposition a text stream.

If the stream refers to a regular file and the resulting stream offset is beyond the size of the file, subsequent writes will extend the file with a hole, up to the offset, before committing any data. See **lseek(2)** for details on file seeking semantics.

**RETURN VALUE**

The **rewind()** function returns no value. Upon successful completion, **fgetpos()**, **fseek()**, **fsetpos()** return 0, and **ftell()** returns the current offset. Otherwise, **-1** is returned and *errno* is set to indicate the error.

**ERRORS****EINVAL**

The *whence* argument to **fseek()** was not **SEEK\_SET**, **SEEK\_END**, or **SEEK\_CUR**. Or: the resulting file offset would be negative.

**ESPIPE**

The file descriptor underlying *stream* is not seekable (e.g., it refers to a pipe, FIFO, or socket).

The functions **fgetpos()**, **fseek()**, **fsetpos()**, and **ftell()** may also fail and set *errno* for any of the errors specified for the routines **fflush(3)**, **fstat(2)**, **lseek(2)**, and **malloc(3)**.

**ATTRIBUTES**

For an explanation of the terms used in this section, see **attributes(7)**.

Interface	Attribute	Value
<b>fseek()</b> , <b>ftell()</b> , <b>rewind()</b> , <b>fgetpos()</b> , <b>fsetpos()</b>	Thread safety	MT-Safe

**STANDARDS**

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

**SEE ALSO**

**lseek(2)**, **fseeko(3)**