

NAME

lseek64 - reposition 64-bit read/write file offset

SYNOPSIS

```
#define _LARGEFILE64_SOURCE /* See feature_test_macros(7) */
#include <sys/types.h>
#include <unistd.h>

off64_t lseek64(int fd, off64_t offset, int whence);
```

DESCRIPTION

The [lseek\(2\)](#) family of functions reposition the offset of the open file associated with the file descriptor *fd* to *offset* bytes relative to the start, current position, or end of the file, when *whence* has the value **SEEK_SET**, **SEEK_CUR**, or **SEEK_END**, respectively.

For more details, return value, and errors, see [lseek\(2\)](#).

Four interfaces are available: [lseek\(2\)](#), [lseek64\(\)](#), [llseek\(2\)](#), and the raw system call [_llseek\(2\)](#).

lseek

Prototype:

```
off_t lseek(int fd, off_t offset, int whence);
```

[lseek\(2\)](#) uses the type *off_t*. This is a 32-bit signed type on 32-bit architectures, unless one compiles with

```
#define _FILE_OFFSET_BITS 64
```

in which case it is a 64-bit signed type.

lseek64

Prototype:

```
off64_t lseek64(int fd, off64_t offset, int whence);
```

The library routine [lseek64\(\)](#) uses a 64-bit type even when *off_t* is a 32-bit type. Its prototype (and the type *off64_t*) is available only when one compiles with

```
#define _LARGEFILE64_SOURCE
```

The function [lseek64\(\)](#) is available since glibc 2.1, and is defined to be an alias for [llseek\(\)](#).

llseek

Prototype:

```
loff_t llseek(int fd, loff_t offset, int whence);
```

The type *loff_t* is a 64-bit signed type. The library routine [llseek\(\)](#) is available and glibc and works without special defines. However, the glibc headers do not provide a prototype. Users should add the above prototype, or something equivalent, to their own source. When users complained about data loss caused by a miscompilation of [e2fsck\(8\)](#), glibc 2.1.3 added the link-time warning

```
the `llseek` function may be dangerous; use `lseek64` instead.
```

This makes this function unusable if one desires a warning-free compilation.

_llseek

All the above functions are implemented in terms of this system call. The prototype is:

```
int _llseek(int fd, off_t offset_hi, off_t offset_lo,
            loff_t *result, int whence);
```

For more details, see [llseek\(2\)](#).

ATTRIBUTES

Multithreading (see **pthread(7)**)

The **lseek64()** function is thread-safe.

SEE ALSO

[llseek\(2\)](#), [lseek\(2\)](#)

COLOPHON

This page is part of release 3.74 of the Linux *man-pages* project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at <http://www.kernel.org/doc/man-pages/>.