## NAME

getentropy − fill a buffer with random bytes

## SYNOPSIS

**#include <unistd.h>**

**int getentropy(void ****buffer***, size_t** *length***);**

Feature Test Macro Requirements for glibc (see **feature_test_macros**(7)):

**getentropy**():
_DEFAULT_SOURCE

## DESCRIPTION

The **getentropy**() function writes *length* bytes of high-quality random data to the buffer starting at the location pointed to by *buffer*. The maximum permitted value for the *length* argument is 256.

A successful call to **getentropy**() always provides the requested number of bytes of entropy.

## RETURN VALUE

On success, this function returns zero. On error, −1 is returned, and *errno* is set appropriately.

## ERRORS

**EFAULT**
Part or all of the buffer specified by *buffer* and *length* is not in valid addressable memory.

**EIO** *length* is greater than 256.

**EIO** An unspecified error occurred while trying to overwrite *buffer* with random data.

**ENOSYS**
This kernel version does not implement the **getrandom**(2) system call required to implement this function.

## VERSIONS

The **getentropy**() function first appeared in glibc 2.25.

## CONFORMING TO

This function is nonstandard. It is also present on OpenBSD.

## NOTES

The **getentropy**() function is implemented using **getrandom**(2).

Whereas the glibc wrapper makes **getrandom**(2) a cancellation point, **getentropy**() is not a cancellation point.

**getentropy**() is also declared in **<sys/random.h>**. (No feature test macro need be defined to obtain the declaration from that header file.)

A call to **getentropy**() may block if the system has just booted and the kernel has not yet collected enough randomness to initialize the entropy pool. In this case, **getentropy**() will keep blocking even if a signal is handled, and will return only once the entropy pool has been initialized.

## SEE ALSO

**getrandom**(2), **urandom**(4), **random**(7)

## COLOPHON

This page is part of release 5.05 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 https://www.kernel.org/doc/man−pages/.