



Rocky Enterprise Linux 9.2 Manual Pages on command 'getentropy.3'

C:\>man getentropy.3

GETENTROPY(3) Linux Programmer's Manual GETENTROPY(3)

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/>.