

NAME

`io_getevents` – read asynchronous I/O events from the completion queue

SYNOPSIS

```
#include <linux/time.h>
#include <libaio.h>
```

```
int io_getevents(aio_context_t ctx_id, long min_nr, long nr,
                 struct io_event *events, struct timespec *timeout);
```

Link with `-laio`.

DESCRIPTION

`io_getevents()` attempts to read at least *min_nr* events and up to *nr* events from the completion queue of the AIO context specified by *ctx_id*. *timeout* specifies the amount of time to wait for events, where a NULL timeout waits until at least *min_nr* events have been seen. Note that *timeout* is relative and will be updated if not NULL and the operation blocks.

RETURN VALUE

On success, `io_getevents()` returns the number of events read: 0 if no events are available, or less than *min_nr* if the *timeout* has elapsed. For the failure return, see NOTES.

ERRORS**EFAULT**

Either *events* or *timeout* is an invalid pointer.

EINVAL

ctx_id is invalid. *min_nr* is out of range or *nr* is out of range.

EINTR

Interrupted by a signal handler; see `signal(7)`.

ENOSYS

`io_getevents()` is not implemented on this architecture.

VERSIONS

The asynchronous I/O system calls first appeared in Linux 2.5, August 2002.

CONFORMING TO

`io_getevents()` is Linux-specific and should not be used in programs that are intended to be portable.

NOTES

Glibc does not provide a wrapper function for this system call.

The wrapper provided in *libaio* for `io_getevents()` does not follow the usual C library conventions for indicating error: on error it returns a negated error number (the negative of one of the values listed in ERRORS). If the system call is invoked via `syscall(2)`, then the return value follows the usual conventions for indicating an error: `-1`, with *errno* set to a (positive) value that indicates the error.

SEE ALSO

`io_cancel(2)`, `io_destroy(2)`, `io_setup(2)`, `io_submit(2)`, `time(7)`

COLOPHON

This page is part of release 3.22 of the Linux *man-pages* project. A description of the project, and information about reporting bugs, can be found at <http://www.kernel.org/doc/man-pages/>.