

NAME

`aio_cancel` – cancel an outstanding asynchronous I/O request

SYNOPSIS

```
#include <aio.h>
```

```
int aio_cancel(int fd, struct aiocb *aiocbp);
```

Link with `-lrt`.

DESCRIPTION

The `aio_cancel()` function attempts to cancel outstanding asynchronous I/O requests for the file descriptor `fd`. If `aiocbp` is NULL, all such requests are canceled. Otherwise, only the request described by the control block pointed to by `aiocbp` is canceled. (See `aio(7)` for a description of the `aiocb` structure.)

Normal asynchronous notification occurs for canceled requests (see `aio(7)` and `sigevent(7)`). The request return status (`aio_return(3)`) is set to `-1`, and the request error status (`aio_error(3)`) is set to `ECANCELED`. The control block of requests that cannot be canceled is not changed.

If the request could not be canceled, then it will terminate in the usual way after performing the I/O operation. (In this case, `aio_error(3)` will return the status `EINPROGRESS`.)

If `aiocbp` is not NULL, and `fd` differs from the file descriptor with which the asynchronous operation was initiated, unspecified results occur.

Which operations are cancelable is implementation-defined.

RETURN VALUE

The `aio_cancel()` function returns one of the following values:

AIO_CANCELED

All requests were successfully canceled.

AIO_NOTCANCELED

At least one of the requests specified was not canceled because it was in progress. In this case, one may check the status of individual requests using `aio_error(3)`.

AIO_ALLDONE

All requests had already been completed before the call.

`-1` An error occurred. The cause of the error can be found by inspecting `errno`.

ERRORS**EBADF**

`fd` is not a valid file descriptor.

ENOSYS

`aio_cancel()` is not implemented.

VERSIONS

The `aio_cancel()` function is available since glibc 2.1.

ATTRIBUTES

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

Interface	Attribute	Value
<code>aio_cancel()</code>	Thread safety	MT-Safe

CONFORMING TO

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

EXAMPLE

See `aio(7)`.

SEE ALSO

`aio_error(3)`, `aio_fsync(3)`, `aio_read(3)`, `aio_return(3)`, `aio_suspend(3)`, `aio_write(3)`, `lio_listio(3)`, `aio(7)`

COLOPHON

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