



Red Hat Enterprise Linux Release 9.2 Manual Pages on 'aio.h.0p' command

\$ man aio.h.0p

aio.h(0P) POSIX Programmer's Manual aio.h(0P)

PROLOG

This manual page is part of the POSIX Programmer's Manual. The Linux implementation of this interface may differ (consult the corresponding Linux manual page for details of Linux behavior), or the interface may not be implemented on Linux.

NAME

aio.h ? asynchronous input and output

SYNOPSIS

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

DESCRIPTION

The <aio.h> header shall define the aiocb structure, which shall include at least the following members:

```
int            aio_fildes    File descriptor.
off_t          aio_offset    File offset.
volatile void *aio_buf       Location of buffer.
size_t         aio_nbytes    Length of transfer.
int            aio_reqprio   Request priority offset.
struct sigevent aio_sigevent Signal number and value.
int            aio_lio_opcode Operation to be performed.
```

The <aio.h> header shall define the off_t, pthread_attr_t, size_t, and ssize_t types as described in <sys/types.h>.

The <aio.h> header shall define the struct timespec structure as de?

scribed in <time.h>.

The <aio.h> header shall define the sigevent structure and sigval union as described in <signal.h>.

The <aio.h> header shall define the following symbolic constants:

AIO_ALLDONE A return value indicating that none of the requested operations could be canceled since they are already complete.

AIO_CANCELED A return value indicating that all requested operations have been canceled.

AIO_NOTCANCELED A return value indicating that some of the requested operations could not be canceled since they are in progress.

LIO_NOP A lio_listio() element operation option indicating that no transfer is requested.

LIO_NOWAIT A lio_listio() synchronization operation indicating that the calling thread is to continue execution while the lio_listio() operation is being performed, and no notification is given when the operation is complete.

LIO_READ A lio_listio() element operation option requesting a read.

LIO_WAIT A lio_listio() synchronization operation indicating that the calling thread is to suspend until the lio_listio() operation is complete.

LIO_WRITE A lio_listio() element operation option requesting a write.

The following shall be declared as functions and may also be defined as macros. Function prototypes shall be provided.

```
int aio_cancel(int, struct aiocb *);
int aio_error(const struct aiocb *);
int aio_fsync(int, struct aiocb *);
int aio_read(struct aiocb *);
ssize_t aio_return(struct aiocb *);
```

```
int aio_suspend(const struct aiocb *const [], int,
               const struct timespec *);
int aio_write(struct aiocb *);
int lio_listio(int, struct aiocb *restrict const [restrict], int,
              struct sigevent *restrict);
```

Inclusion of the <aio.h> header may make visible symbols defined in the headers <fcntl.h>, <signal.h>, and <time.h>.

The following sections are informative.

APPLICATION USAGE

None.

RATIONALE

None.

FUTURE DIRECTIONS

None.

SEE ALSO

<fcntl.h>, <signal.h>, <sys_types.h>, <time.h>

The System Interfaces volume of POSIX.1-2017, `aio_cancel()`, `aio_err?`
`ror()`, `aio_fsync()`, `aio_read()`, `aio_return()`, `aio_suspend()`,
`aio_write()`, `fsync()`, `lio_listio()`, `lseek()`, `read()`, `write()`

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