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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'readv.3p' command

$ man readv.3p

READV(3P) POSIX Programmer's Manual READV(3P)

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

readv ? read a vector

SYNOPSIS

```
#include <sys/uio.h>
ssize_t readv(int fildes, const struct iovec *iov, int iovcnt);
```

DESCRIPTION

The readv() function shall be equivalent to read(), except as described below. The readv() function shall place the input data into the iovcnt buffers specified by the members of the iov array: iov[0], iov[1], ..., iov[iovcnt-1]. The iovcnt argument is valid if greater than 0 and less than or equal to {IOV_MAX}.

Each iovec entry specifies the base address and length of an area in memory where data should be placed. The readv() function shall always fill an area completely before proceeding to the next.

Upon successful completion, readv() shall mark for update the last data access timestamp of the file.

RETURN VALUE

Refer to read().

ERRORS

Refer to read().

In addition, the readv() function shall fail if:

EINVAL The sum of the iov_len values in the iov array overflowed an ssize_t.

The readv() function may fail if:

EINVAL The iovcnt argument was less than or equal to 0, or greater than {IOV_MAX}.

The following sections are informative.

EXAMPLES

Reading Data into an Array

The following example reads data from the file associated with the file descriptor fd into the buffers specified by members of the iov array.

```
#include <sys/types.h>
#include <sys/uio.h>
#include <unistd.h>
...
ssize_t bytes_read;
int fd;
char buf0[20];
char buf1[30];
char buf2[40];
int iovcnt;
struct iovec iov[3];
iov[0].iov_base = buf0;
iov[0].iov_len = sizeof(buf0);
iov[1].iov_base = buf1;
iov[1].iov_len = sizeof(buf1);
iov[2].iov_base = buf2;
iov[2].iov_len = sizeof(buf2);
...
iovcnt = sizeof(iov) / sizeof(struct iovec);
```

```
bytes_read = readv(fd, iov, iovcnt);
...
```

APPLICATION USAGE

None.

RATIONALE

Refer to read().

FUTURE DIRECTIONS

None.

SEE ALSO

read(), writev()

The Base Definitions volume of POSIX.1?2017, <sys_uio.h>