

## NAME

sys/uio.h – definitions for vector I/O operations

## SYNOPSIS

[\[XSI\]](#)  #include <sys/uio.h> 

## DESCRIPTION

The <sys/uio.h> header shall define the **iovec** structure, which shall include at least the following members:

void    \*iov\_base   Base address of a memory region for input or output.  
size\_t   iov\_len    The size of the memory pointed to by *iov\_base*.

The <sys/uio.h> header uses the **iovec** structure for scatter/gather I/O.

The <sys/uio.h> header shall define the **ssize\_t** and **size\_t** types as described in [<sys/types.h>](#).

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

```
ssize_t readv(int, const struct iovec *, int);  
ssize_t writev(int, const struct iovec *, int);
```

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*The following sections are informative.*

## APPLICATION USAGE

The implementation can put a limit on the number of scatter/gather elements which can be processed in one call. The symbol {IOV\_MAX} defined in [<limits.h>](#) should always be used to learn about the limits instead of assuming a fixed value.

## RATIONALE

Traditionally, the maximum number of scatter/gather elements the system can process in one call were described by the symbolic value {UIO\_MAXIOV}. In IEEE Std 1003.1-2001 this value is replaced by the constant {IOV\_MAX} which can be found in [<limits.h>](#).

## FUTURE DIRECTIONS

None.

## SEE ALSO

[<limits.h>](#), [<sys/types.h>](#)

XSH [read](#), [readv](#), [write](#), [writev](#)

## CHANGE HISTORY

First released in Issue 4, Version 2.

### Issue 6

Text referring to scatter/gather I/O is added to the DESCRIPTION.

*End of informative text.*

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