

## Op:uio.h

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

```
#include <sys/uio.h>
```

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### DESCRIPTION

The `<sys/uio.h>` header shall define the `iovec` structure that includes 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 `ssize_t` and `size_t` types shall be defined 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);
```

*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.

#### **RELATED**

**<limits.h>** , **<sys/types.h>** , the System Interfaces volume of IEEE Std 1003.1-2001, **read()**, **write()**

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