

Op:sys_select.h

sys/select.h - select types

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

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DESCRIPTION

The `<sys/select.h>` header shall define the `timeval` structure that includes at least the following members:

<code>time_t</code>	<code>tv_sec</code>	Seconds.
<code>suseconds_t</code>	<code>tv_usec</code>	Microseconds.

The `time_t` and `suseconds_t` types shall be defined as described in `<sys/types.h>` .

The `sigset_t` type shall be defined as described in `<signal.h>` .

The `timespec` structure shall be defined as described in `<time.h>` .

The `<sys/select.h>` header shall define the `fd_set` type as a structure.

Each of the following may be declared as a function, or defined as a macro, or both:

```
void FD_CLR(int fd, fd_set *fdset)
```

Clears the bit for the file descriptor `fd` in the file descriptor set `fdset`.

```
int FD_ISSET(int fd, fd_set *fdset)
```

Returns a non-zero value if the bit for the file descriptor *fd* is set in the file descriptor set by *fdset*, and 0 otherwise.

```
void FD_SET(int fd, fd_set *fdset)
```

Sets the bit for the file descriptor *fd* in the file descriptor set *fdset*.

```
void FD_ZERO(fd_set *fdset)
```

Initializes the file descriptor set *fdset* to have zero bits for all file descriptors.

If implemented as macros, these may evaluate their arguments more than once, so applications should ensure that the arguments they supply are never expressions with side effects.

The following shall be defined as a macro:

```
FD_SETSIZE
```

Maximum number of file descriptors in an *fd_set* structure.

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

```
int pselect(int, fd_set *restrict, fd_set *restrict, fd_set *restrict,  
const struct timespec *restrict, const sigset_t *restrict);  
int select(int, fd_set *restrict, fd_set *restrict, fd_set *restrict,  
struct timeval *restrict);
```

Inclusion of the *<sys/select.h>* header may make visible all symbols from the headers *<signal.h>*, *<sys/time.h>*, and *<time.h>*.

The following sections are informative.

APPLICATION USAGE

None.

RATIONALE

None.

FUTURE DIRECTIONS

None.

RELATED

<signal.h> , *<sys/time.h>* , *<sys/types.h>* , *<time.h>* , the System Interfaces volume of IEEE Std 1003.1-2001, *pselect()*, *select()*

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