

Op:sys_msg.h

sys/msg.h - XSI message queue structures

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

Contents [1 DESCRIPTION](#) [2 APPLICATION USAGE](#) [3 RATIONALE](#) [4 FUTURE DIRECTIONS](#) [5 RELATED](#)
[6 COPYRIGHT](#) [7 CATEGORY](#)

DESCRIPTION

The `<sys/msg.h>` header shall define the following data types through `typedef`:

msgqnum_t

Used for the number of messages in the message queue.

msglen_t

Used for the number of bytes allowed in a message queue.

These types shall be unsigned integer types that are able to store values at least as large as a type **unsigned short**.

The `<sys/msg.h>` header shall define the following constant as a message operation flag:

MSG_NOERROR

No error if big message.

The **msqid_ds** structure shall contain the following members:

struct ipc_perm	msg_perm	Operation permission structure.
msgqnum_t	msg_qnum	Number of messages currently on queue.
msglen_t	msg_qbytes	Maximum number of bytes allowed on

queue.

<code>pid_t</code>	<code>msg_lspid</code>	Process ID of last <code>msgsnd</code>
<code>()</code>		
<code>pid_t</code>	<code>msg_lrpid</code>	Process ID of last <code>msgrcv</code>
<code>()</code>		
<code>time_t</code>	<code>msg_stime</code>	Time of last <code>msgsnd</code>
<code>()</code>		
<code>time_t</code>	<code>msg_rtime</code>	Time of last <code>msgrcv</code>
<code>()</code>		
<code>time_t</code>	<code>msg_ctime</code>	Time of last change.

The `pid_t`, `time_t`, `key_t`, `size_t`, and `ssize_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.

```
int      msgctl(int, int, struct msqid_ds *);
int      msgget(key_t, int);
ssize_t  msgrcv(int, void *, size_t, long, int);
int      msgsnd(int, const void *, size_t, int);
```

In addition, all of the symbols from `<sys/ipc.h>` shall be defined when this header is included.

The following sections are informative.

APPLICATION USAGE

None.

RATIONALE

None.

FUTURE DIRECTIONS

None.

RELATED

`<sys/ipc.h>` , `<sys/types.h>` , `msgctl()` , `msgget()` , `msgrcv()` , `msgsnd()`

COPYRIGHT

Portions of this text are reprinted and reproduced in electronic form from IEEE Std 1003.1, 2003 Edition, Standard for Information Technology -- Portable Operating System Interface (POSIX), The Open Group Base Specifications Issue 6, Copyright (C) 2001-2003 by the Institute of Electrical and Electronics Engineers, Inc and The Open Group. In the event of any discrepancy between this version and the original IEEE and The Open Group Standard, the original IEEE and The Open Group Standard is the referee document. The original Standard can be obtained online at <http://www.opengroup.org/unix/online.html> .

IEEE/The Open Group 2003 `<sys/msg.h>`(P)