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NAME

sys/msg.h – XSI message queue structures

SYNOPSIS

[<u>XSI</u>] ⊠ #include <sys/msg.h> ⊠

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 symbolic constant as a message operation
flag:

MSG_NOERROR
     No error if big message.

The *<sys/msg.h>* header shall define the **msqid_ds** structure, which shall include 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.
pid_t            msg_lspid  Process ID of last msgsnd().
pid_t            msg_lrpid  Process ID of last msgrcv().
time_t           msg_stime  Time of last msgsnd().
time_t           msg_rtime  Time of last msgrcv().
time_t           msg_ctime  Time of last change.
```

The *<sys/msg.h>* header shall define the **pid_t, size_t, ssize_t,** and **time_t** types as described
in *<u><sys/types.h></u>*.

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, the *<sys/msg.h>* header shall include the *<u><sys/ipc.h></u>* header.

The following sections are informative.

APPLICATION USAGE

None.

RATIONALE

None.

FUTURE DIRECTIONS

None.

SEE ALSO

<sys/ipc.h>, *<sys/types.h>*

XSH *msgctl*, *msgget*, *msgrcv*, *msgsnd*

CHANGE HISTORY

First released in Issue 2. Derived from System V Release 2.0.

Issue 7

Austin Group Interpretation 1003.1-2001 #179 is applied.

This reference page is clarified with respect to macros and symbolic constants.

End of informative text.

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