

NAME

msgget - get message queue

LIBRARY

Standard C Library (libc, -lc)

SYNOPSIS

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

int

```
msgget(key_t key, int msgflg);
```

DESCRIPTION

The **msgget()** function returns the message queue identifier associated with *key*. A message queue identifier is a unique integer greater than zero.

A message queue is created if either *key* is equal to `IPC_PRIVATE`, or *key* does not have a message queue identifier associated with it, and the `IPC_CREAT` bit is set in *msgflg*.

If a new message queue is created, the data structure associated with it (the *msqid_ds* structure, see `msgctl(2)`) is initialized as follows:

- *msg_perm.cuid* and *msg_perm.uid* are set to the effective uid of the calling process.
- *msg_perm.gid* and *msg_perm.cgid* are set to the effective gid of the calling process.
- *msg_perm.mode* is set to the lower 9 bits of *msgflg* which are set by ORing these constants:

0400 Read access for user.

0200 Write access for user.

0040 Read access for group.

0020 Write access for group.

0004 Read access for other.

0002 Write access for other.

- *msg_cbytes*, *msg_qnum*, *msg_lspid*, *msg_lrpid*, *msg_rtime*, and *msg_stime* are set to 0.
- *msg_qbytes* is set to the system wide maximum value for the number of bytes in a queue (MSGMNB).
- *msg_ctime* is set to the current time.

RETURN VALUES

Upon successful completion a positive message queue identifier is returned. Otherwise, -1 is returned and the global variable *errno* is set to indicate the error.

ERRORS

- | | |
|----------|--|
| [EACCES] | A message queue is already associated with <i>key</i> and the caller has no permission to access it. |
| [EEXIST] | Both IPC_CREAT and IPC_EXCL are set in <i>msgflg</i> , and a message queue is already associated with <i>key</i> . |
| [ENOSPC] | A new message queue could not be created because the system limit for the number of message queues has been reached. |
| [ENOENT] | IPC_CREAT was not set in <i>msgflg</i> and no message queue associated with <i>key</i> was found. |

SEE ALSO

msgctl(2), *msgrcv(2)*, *msgsnd(2)*

HISTORY

Message queues appeared in the first release of AT&T System V UNIX.