

Op:mqueue.h

mqueue.h - message queues (**REALTIME**)

```
#include <mqueue.h>
```

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DESCRIPTION

The `<mqueue.h>` header shall define the `mqd_t` type, which is used for message queue descriptors. This is not an array type.

The `<mqueue.h>` header shall define the `sigevent` structure (as described in `<signal.h>`) and the `mq_attr` structure, which is used in getting and setting the attributes of a message queue. Attributes are initially set when the message queue is created. An `mq_attr` structure shall have at least the following fields:

<code>long</code>	<code>mq_flags</code>	Message queue flags.
<code>long</code>	<code>mq_maxmsg</code>	Maximum number of messages.
<code>long</code>	<code>mq_msgsize</code>	Maximum message size.
<code>long</code>	<code>mq_curmsgs</code>	Number of messages currently queued.

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

```
int      mq_close(mqd_t);
int      mq_getattr(mqd_t, struct mq_attr *);
int      mq_notify(mqd_t, const struct sigevent *);
mqd_t    mq_open(const char *, int, ...);
```

```

ssize_t mq_receive(mqd_t, char *, size_t, unsigned *);
int      mq_send(mqd_t, const char *, size_t, unsigned );
int      mq_setattr(mqd_t, const struct mq_attr *restrict,
                   struct mq_attr *restrict);

ssize_t mq_timedreceive(mqd_t, char *restrict, size_t,
                       unsigned *restrict, const struct timespec *restrict);
int      mq_timedsend(mqd_t, const char *, size_t, unsigned ,
                     const struct timespec *);

int      mq_unlink(const char *);

```

Inclusion of the `<mqqueue.h>` header may make visible symbols defined in the headers `<fcntl.h>`, `<signal.h>`, `<sys/types.h>`, and `<time.h>`.

The following sections are informative.

APPLICATION USAGE

None.

RATIONALE

None.

FUTURE DIRECTIONS

None.

RELATED

`<fcntl.h>` , `<signal.h>` , `<sys/types.h>` , `<time.h>` , the System Interfaces volume of IEEE Std 1003.1-2001, `mq_close()`, `mq_getattr()`, `mq_notify()`, `mq_open()`, `mq_receive()`, `mq_send()`, `mq_setattr()`, `mq_timedreceive()`, `mq_timedsend()`, `mq_unlink()`

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