NAME

maillock – manage lockfile for user's mailbox

SYNOPSIS

cc [*flag* ...] *file* ... **–lmail** [*library* ...]

#include <maillock.h>

int maillock(const char ∗*user***, int** *retrycnt***);**

int mailunlock(void);

MT-LEVEL

Unsafe

DESCRIPTION

The **maillock( )** function attempts to create a lockfile for the user's mailfile. If a lockfile already exists, and it has not been modified in the last 5 minutes, **maillock( )** will remove the lockfile and set it's own lockfile.

It is crucial that programs locking mail files refresh their locks at least every minute. Lockfiles are refreshed by calling the routine **touchlock( )** with no arguments. It should be called before doing anything that might keep the system busy for a long time. It should be called at least every 3 minutes or the process may lose its lock on the mail file. In practice, arranging to call it once a minute works well.

The algorithm used to determine the age of the lockfile takes into account clock drift between machines using a network file system. A zero is written into the lockfile so that the lock will be respected by systems running the standard version of System V.

If the lockfile has been modified in the last 5 minutes the process will sleep until the lock is available. The sleep algorithm is to sleep for 5 seconds times the attempt number. That is, the first sleep will be for 5 seconds, the next sleep will be for 10 seconds, etc. until the number of attempts reaches *retrycnt*.

When the lockfile is no longer needed, it should be removed by calling **mailunlock( )**.

user is the login name of the user for whose mailbox the lockfile will be created. **maillock( )** assumes that users' mailfiles are in the ''standard'' place as defined in **<maillock.h>**.

RETURN VALUES

The following return code definitions are contained in **<maillock.h>**.

```
#define L_SUCCESS   0  /* Lockfile created or removed */
#define L_NAMELEN   1  /* Recipient name > 13 chars */
#define L_TMPLOCK   2  /* Can't create tmp file */
#define L_TMPWRITE  3  /* Can't write pid into lockfile */
#define L_MAXTRYS   4  /* Failed after retrycnt attempts */
#define L_ERROR     5  /* Check errno for reason */
```

FILES

LIBDIR/llib-mail.ln
LIBDIR/mail.a
/var/mail/∗
/var/mail/∗**.lock**

NOTES

mailunlock( ) will only remove the lockfile created from the most previous call to **maillock( )**. Calling **maillock( )** for different users without intervening calls to **mailunlock( )** will cause the initially created lockfile(s) to remain, potentially blocking subsequent message delivery until the current process finally terminates.