NAME

    flockfile, **ftrylockfile**, **funlockfile** - stdio locking functions

LIBRARY

    Standard C Library (libc, -lc)

SYNOPSIS

    #include <stdio.h>

    void
    flockfile(*FILE *stream*);

    int
    ftrylockfile(*FILE *stream*);

    void
    funlockfile(*FILE *stream*);

DESCRIPTION

    These functions provide explicit application-level locking of stdio streams. They can be used to avoid output from multiple threads being interspersed, input being dispersed among multiple readers, and to avoid the overhead of locking the stream for each operation.

    The **flockfile**() function acquires an exclusive lock on the specified stream. If another thread has already locked the stream, **flockfile**() will block until the lock is released.

    The **ftrylockfile**() function is a non-blocking version of **flockfile**(); if the lock cannot be acquired immediately, **ftrylockfile**() returns non-zero instead of blocking.

    The **funlockfile**() function releases the lock on a stream acquired by an earlier call to **flockfile**() or **ftrylockfile**().

    These functions behave as if there is a lock count associated with each stream. Each time **flockfile**() is called on the stream, the count is incremented, and each time **funlockfile**() is called on the stream, the count is decremented. The lock is only actually released when the count reaches zero.

RETURN VALUES

    The **flockfile**() and **funlockfile**() functions return no value.

    The **ftrylockfile**() function returns zero if the stream was successfully locked, non-zero otherwise.

SEE ALSO
   getc_unlocked(3), putc_unlocked(3)

STANDARDS
   The **flockfile**(), **ftrylockfile**() and **funlockfile**() functions conform to IEEE Std 1003.1-2001
   ("POSIX.1").