

NAME

bopnclos - Buffered open and close.

SYNOPSIS

```

bopnclos (filename,mode) /*Open file with given mode.*/
    char *filename;
    int mode;

bopnclos (fildes,-1) /*File descriptor may be closed
    int fildes;          if needed.*/

bopnclos (fildes,-2) /*File descriptor may be truly
    int fildes;          closed if previously marked as
                        not needed.*/

bopnclos (-2,-2) /*All file descriptors not needed
                  should be closed.*/

```

DESCRIPTION

NOTE: When dealing with new programs consider Standard I/O first.

This routine maintains a list of up to 15 open files. If the external variable BOCLOS_MAX is set to a number between 1 and 15 then BOCLOS_MAX descriptors will be kept open. Otherwise 10 descriptors are kept open.

To "open" a file a bopnclos (filename,mode) call is made. If a file is already opened with the name exactly matching filename and with a matching mode the descriptor is returned and the file is marked in use. Otherwise, if the routine has not used up all the descriptors allowed to it by BOCLOS_MAX the file is truly opened and its name and mode recorded. If the file is not already opened and there are no spare descriptors then a file "closed" by bopnclos (fildes,-1) is truly closed to free up the descriptor. Of all the "closed" files the one least recently "opened" is chosen.

When the routine is called with bopnclos (fildes,-1) to "close" a file, its entry is found in the local table and it is marked as available for closing if its descriptor is needed.

When the routine is called with bopnclos (fildes,-2) the fildes, if it is marked available, is truly closed. Otherwise a -1 is returned.

Bopnclos (-2,-2) forces a close of all the file descriptors marked available. If no file was marked available a -1 is returned and errno is clear. Otherwise the logical or of all the returns for the close system calls is returned and errno is as the system leaves it. This is useful when you know you no longer need those files or when you unlink the original file and want to open another file by the same name.

This routine can be used to save disk accesses for opening and closing files frequently accessed by a running process. Note that it must be used with extreme caution since it can cause the user to run out of descriptors if proper care was not exercised. Its use should also be coordinated with the system gnomes since it potentially makes use of a large percentage of the total number of descriptors that the system may have open at one time.

LIBRARY

/lib/lib1.a

SEE ALSO

bread(3L),bwrite(3L),open(2),close(2),fopen(3)

DIAGNOSTICS

A -1 is returned when asked to truly close a file descriptor not marked available for closing or when a file name of more than 29 characters is passed to it. Otherwise the return of the corresponding system call (open or close) is returned.

BUGS

File names of more than 29 characters do not fit in its internal buffers.