NAME

setfsgid − set group identity used for file system checks

SYNOPSIS

#include <unistd.h> /* glibc uses <sys/fsuid.h> */

int setfsgid(uid_t *fsgid***);**

DESCRIPTION

The system call **setfsgid**() sets the group ID that the Linux kernel uses to check for all accesses to the file system. Normally, the value of *fsgid* will shadow the value of the effective group ID. In fact, whenever the effective group ID is changed, *fsgid* will also be changed to the new value of the effective group ID.

Explicit calls to **setfsuid**(2) and **setfsgid**() are usually only used by programs such as the Linux NFS server that need to change what user and group ID is used for file access without a corresponding change in the real and effective user and group IDs. A change in the normal user IDs for a program such as the NFS server is a security hole that can expose it to unwanted signals. (But see below.)

setfsgid() will only succeed if the caller is the superuser or if *fsgid* matches either the real group ID, effective group ID, saved set-group-ID, or the current value of *fsgid*.

RETURN VALUE

On success, the previous value of *fsgid* is returned. On error, the current value of *fsgid* is returned.

VERSIONS

This system call is present in Linux since version 1.2.

CONFORMING TO

setfsgid() is Linux-specific and should not be used in programs intended to be portable.

NOTES

When glibc determines that the argument is not a valid group ID, it will return −1 and set *errno* to **EINVAL** without attempting the system call.

Note that at the time this system call was introduced, a process could send a signal to a process with the same effective user ID. Today signal permission handling is slightly different.

BUGS

No error messages of any kind are returned to the caller. At the very least, **EPERM** should be returned when the call fails (because the caller lacks the **CAP_SETGID** capability).

SEE ALSO

kill(2), **setfsuid**(2), **capabilities**(7), **credentials**(7)

COLOPHON

This page is part of release 3.22 of the Linux *man-pages* project. A description of the project, and information about reporting bugs, can be found at http://www.kernel.org/doc/man-pages/.