



Linux Ubuntu 26.04 Manual Pages on command 'setegid.2'

\$ man setegid.2

setegid(2) System Calls Manual setegid(2)

NAME

setegid, setegid - set effective user or group ID

LIBRARY

Standard C library (libc, -lc)

SYNOPSIS

```
#include <unistd.h>

int setegid(uid_t euid);

int setegid(gid_t egid);
```

Feature Test Macro Requirements for glibc (see feature_test_macros(7)):

setegid(), setegid():

 _POSIX_C_SOURCE >= 200112L

 || /* glibc <= 2.19: */ _BSD_SOURCE

DESCRIPTION

setegid() sets the effective user ID of the calling process. Unprivileged processes may only set the effective user ID to the real user ID, the effective user ID or the saved set-user-ID.

Precisely the same holds for setegid() with "group" instead of "user".

RETURN VALUE

On success, zero is returned. On error, -1 is returned, and errno is set to indicate the error.

Note: there are cases where setegid() can fail even when the caller is UID 0; it is a grave security error to omit checking for a failure return from setegid().

ERRORS

EINVAL The target user or group ID is not valid in this user namespace.

EPERM In the case of `seteuid()`: the calling process is not privileged (does not have the `CAP_SETUID` capability in its user namespace) and `euid` does not match the current real user ID, current effective user ID, or current saved set-user-ID.

In the case of `setegid()`: the calling process is not privileged (does not have the `CAP_SETGID` capability in its user namespace) and `egid` does not match the current real group ID, current effective group ID, or current saved set-group-ID.

VERSIONS

Setting the effective user (group) ID to the saved set-user-ID (saved set-group-ID) is possible since Linux 1.1.37 (1.1.38). On an arbitrary system one should check `_POSIX_SAVED_IDS`.

Under glibc 2.0, `seteuid(euid)` is equivalent to `setreuid(-1, euid)` and hence may change the saved set-user-ID. Under glibc 2.1 and later, it is equivalent to `setresuid(-1, euid, -1)` and hence does not change the saved set-user-ID. Analogous remarks hold for `setegid()`, with the difference that the change in implementation from `setregid(-1, egid)` to `setresgid(-1, egid, -1)` occurred in glibc 2.2 or 2.3 (depending on the hardware architecture).

According to POSIX.1, `seteuid()` (`setegid()`) need not permit `euid` (`egid`) to be the same value as the current effective user (group) ID, and some implementations do not permit this.

C library/kernel differences

On Linux, `seteuid()` and `setegid()` are implemented as library functions that call, respectively, `setresuid(2)` and `setresgid(2)`.

STANDARDS

POSIX.1-2024.

HISTORY

POSIX.1-2001, 4.3BSD.

SEE ALSO

`geteuid(2)`, `setresuid(2)`, `setreuid(2)`, `setuid(2)`, `capabilities(7)`, `credentials(7)`, `user_namespaces(7)`