NAME

getgrent, getgrnam, getgrgid, setgrent, endgrent, setgrfile − group file routines

SYNOPSIS

#include <grp.h>

struct group *getgrent(void)
struct group *getgrnam(const char *_name_)
struct group *getgrgid(gid_t _gid_)
int setgrent(void)
void endgrent(void)
void setgrfile(const char *_file_)

DESCRIPTION

These functions are used to obtain information from the group file. They return this information in a **struct group** as defined by <grp.h>:

```
struct group {
    char    *gr_name;       /* login name */
    char    *gr_passwd;     /* encrypted password */
    gid_t   gr_gid;         /* numeric group id */
    char    **gr_mem;       /* null-terminated list of group members */
};
```

Getgrent() reads the group file entry by entry. **Getgrnam()** scans the entire group file for the group with the given *name*. **Getgrgid()** looks for the first group with the given *gid*. The **setgrent()** and **endgrent()** functions are used to open and later close the group file. With **setgrfile()** one can specify the file to read other than the normal group file. This only sets the name, the next **setgrent()** call will open the file. Do not touch the file name while it is active. Use **setgrfile(NULL)** to revert back to the normal group file.

The usual way to scan the group file is (error checking omitted):

```
setgrent();
while ((gr = getgrent()) != NULL)
        if (appropriate_test(gr)) break;
endgrent();
```

The **gr** variable contains the entry that is wanted if non-NULL. The **getgrnam()** and **getgrgid()** functions are implemented as in this example, with error checking of course.

Getgrent() calls **setgrent()** if this has not yet been done. **Setgrent()** first calls **endgrent()** if the group file is still open. (Other implementations may simply rewind the file.)

FILES

/etc/group The group file database.

SEE ALSO

getgroups(2), **initgroups**(3), **getpwent**(3), **passwd**(5).

DIAGNOSTICS

Setgrent() has the same return value and error codes as the **open**(2) call it uses to open the group file. The **get**_xxx_**()** functions return NULL on end of file, entry not found, or error. You can set **errno** to zero before the call and check it after.

NOTES

All **get**_xxx_**()** routines return a pointer to static storage that is overwritten in each call.

Only **getgrnam()** and **getgrgid()** are defined by POSIX. The **_MINIX_SOURCE** macro must be defined before including <grp.h> to make the other functions visible. The **gr_passwd** field is also not defined by POSIX, but is always visible. Portable code cannot reliably detect errors by setting **errno** to zero. Under Minix it is better to make a **getgrent()** scan if you need to look up several group-id's or names, but portable code had better use several **getgrgid()** or **getgrnam()** calls. The **getgrent()** is

usually available on other systems, but may be very expensive. See **initgroups**(3) if you are after supplementary group id's.

AUTHOR

Kees J. Bot (kjb@cs.vu.nl)