Rocky Enterprise Linux 9.2 Manual Pages on command 'getgrgid_r.3'

C:\>man getgrgid_r.3

GETGRNAM(3) Linux Programmer's Manual GETGRNAM(3)

NAME

getgrnam, getgrnam_r, getgrgid, getgrgid_r - get group file entry

SYNOPSIS

```
#include <sys/types.h>
#include <grp.h>
struct group *getgrnam(const char *name);
struct group *getgrgid(gid_t gid);
int getgrnam_r(const char *name, struct group *grp,
        char *buf, size_t buflen, struct group **result);
int getgrgid_r(gid_t gid, struct group *grp,
        char *buf, size_t buflen, struct group **result);
```

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

getgrnam_r(), getgrgid_r():

_POSIX_C_SOURCE

|| /* Glibc versions <= 2.19: */ _BSD_SOURCE || _SVID_SOURCE

DESCRIPTION

The getgrnam() function returns a pointer to a structure containing the broken-out fields of the record in the group database (e.g., the local group file /etc/group, NIS, and LDAP) that matches the group name name.

The getgrgid() function returns a pointer to a structure containing the broken-out fields of the record in the group database that matches the group ID gid.

The group structure is defined in <grp.h> as follows:

```
struct group {
    char   *gr_name;        /* group name */
    char   *gr_passwd;      /* group password */
    gid_t   gr_gid;         /* group ID */
    char  **gr_mem;         /* NULL-terminated array of pointers
                               to names of group members */
};
```

For more information about the fields of this structure, see group(5).

The getgrnam_r() and getgrgid_r() functions obtain the same information as getgr? nam() and getgrgid(), but store the retrieved group structure in the space pointed to by grp. The string fields pointed to by the members of the group structure are stored in the buffer buf of size buflen. A pointer to the result (in case of suc? cess) or NULL (in case no entry was found or an error occurred) is stored in *re? sult.

The call

```
sysconf(_SC_GETGR_R_SIZE_MAX)
```

returns either -1, without changing errno, or an initial suggested size for buf. (If this size is too small, the call fails with ERANGE, in which case the caller can retry with a larger buffer.)

RETURN VALUE

The getgrnam() and getgrgid() functions return a pointer to a group structure, or NULL if the matching entry is not found or an error occurs. If an error occurs, errno is set appropriately. If one wants to check errno after the call, it should be set to zero before the call.

The return value may point to a static area, and may be overwritten by subsequent calls to getgrent(3), getgrgid(), or getgrnam(). (Do not pass the returned pointer to free(3).)

On success, getgrnam_r() and getgrgid_r() return zero, and set *result to grp. If no matching group record was found, these functions return 0 and store NULL in *re? sult. In case of error, an error number is returned, and NULL is stored in *re? sult.

ERRORS

0 or ENOENT or ESRCH or EBADF or EPERM or ...

The given name or gid was not found.

EINTR A signal was caught; see signal(7).

EIO I/O error.

EMFILE The per-process limit on the number of open file descriptors has been reached.

ENFILE The system-wide limit on the total number of open files has been reached.

ENOMEM Insufficient memory to allocate group structure.

ERANGE Insufficient buffer space supplied.

FILES

/etc/group

local group database file

ATTRIBUTES

For an explanation of the terms used in this section, see attributes(7).

Interface	Attribute	Value
getgrnam()	Thread safety	MT-Unsafe race:grnam locale
getgrgid()	Thread safety	MT-Unsafe race:grgid locale
getgrnam_r(), getgrgid_r()	Thread safety	MT-Safe locale

CONFORMING TO

POSIX.1-2001, POSIX.1-2008, SVr4, 4.3BSD.

NOTES

The formulation given above under "RETURN VALUE" is from POSIX.1. It does not call "not found" an error, hence does not specify what value errno might have in this situation. But that makes it impossible to recognize errors. One might argue that according to POSIX errno should be left unchanged if an entry is not found. Exper? iments on various UNIX-like systems show that lots of different values occur in this situation: 0, ENOENT, EBADF, ESRCH, EWOULDBLOCK, EPERM, and probably others.

SEE ALSO

endgrent(3), fgetgrent(3), getgrent(3), getpwnam(3), setgrent(3), group(5)

COLOPHON

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