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### ***Rocky Enterprise Linux 9.2 Manual Pages on command 'getpwuid\_r.3'***

***\$ man getpwuid\_r.3***

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

NAME

getpwnam, getpwnam\_r, getpwuid, getpwuid\_r - get password file entry

SYNOPSIS

```
#include <sys/types.h>
#include <pwd.h>
struct passwd *getpwnam(const char *name);
struct passwd *getpwuid(uid_t uid);
int getpwnam_r(const char *name, struct passwd *pwd,
               char *buf, size_t buflen, struct passwd **result);
int getpwuid_r(uid_t uid, struct passwd *pwd,
               char *buf, size_t buflen, struct passwd **result);
```

Feature Test Macro Requirements for glibc (see feature\_test\_macros(7)):

```
getpwnam_r(), getpwuid_r():
    _POSIX_C_SOURCE
    || /* Glibc versions <= 2.19: */ _BSD_SOURCE || _SVID_SOURCE
```

DESCRIPTION

The getpwnam() function returns a pointer to a structure containing the

broken-out fields of the record in the password database (e.g., the local password file `/etc/passwd`, NIS, and LDAP) that matches the username name.

The `getpwuid()` function returns a pointer to a structure containing the broken-out fields of the record in the password database that matches the user ID `uid`.

The `passwd` structure is defined in `<pwd.h>` as follows:

```
struct passwd {
    char *pw_name;    /* username */
    char *pw_passwd;  /* user password */
    uid_t pw_uid;     /* user ID */
    gid_t pw_gid;     /* group ID */
    char *pw_gecos;   /* user information */
    char *pw_dir;     /* home directory */
    char *pw_shell;   /* shell program */
};
```

See `passwd(5)` for more information about these fields.

The `getpwnam_r()` and `getpwuid_r()` functions obtain the same information as `getpwnam()` and `getpwuid()`, but store the retrieved `passwd` structure in the space pointed to by `pwd`. The string fields pointed to by the members of the `passwd` structure are stored in the buffer `buf` of size `buflen`. A pointer to the result (in case of success) or `NULL` (in case no entry was found or an error occurred) is stored in `*result`.

The call

```
sysconf(_SC_GETPW_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 `getpwnam()` and `getpwuid()` functions return a pointer to a `passwd` 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 `getpwent(3)`, `getpwnam()`, or `getpwuid()`. (Do not pass the returned pointer to `free(3)`.)

On success, `getpwnam_r()` and `getpwuid_r()` return zero, and set `*result` to `pwd`. If no matching password record was found, these functions return 0 and store NULL in `*result`. In case of error, an error number is returned, and NULL is stored in `*result`.

## ERRORS

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

The given name or uid 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 `passwd` structure.

ERANGE Insufficient buffer space supplied.

## FILES

`/etc/passwd`

local password database file

## ATTRIBUTES

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

`attributes(7)`.

??

?Interface ? Attribute ? Value ?

??

?getpwnam() ? Thread safety ? MT-Unsafe race:pwnam locale ?

??

?getpwuid() ? Thread safety ? MT-Unsafe race:pwuid locale ?

??

?getpwnam\_r(), ? Thread safety ? MT-Safe locale ?

?getpwuid\_r() ? ? ?



```

{
    struct passwd pwd;
    struct passwd *result;
    char *buf;
    size_t bufsize;
    int s;
    if (argc != 2) {
        fprintf(stderr, "Usage: %s username\n", argv[0]);
        exit(EXIT_FAILURE);
    }
    bufsize = sysconf(_SC_GETPW_R_SIZE_MAX);
    if (bufsize == -1) /* Value was indeterminate */
        bufsize = 16384; /* Should be more than enough */
    buf = malloc(bufsize);
    if (buf == NULL) {
        perror("malloc");
        exit(EXIT_FAILURE);
    }
    s = getpwnam_r(argv[1], &pwd, buf, bufsize, &result);
    if (result == NULL) {
        if (s == 0)
            printf("Not found\n");
        else {
            errno = s;
            perror("getpwnam_r");
        }
        exit(EXIT_FAILURE);
    }
    printf("Name: %s; UID: %jd\n", pwd.pw_gecos,
        (intmax_t) pwd.pw_uid);
    exit(EXIT_SUCCESS);
}

```

endpwent(3), fgetpwent(3), getgrnam(3), getpw(3), getpwent(3), getsp?  
nam(3), putpwent(3), setpwent(3), passwd(5)

## COLOPHON

This page is part of release 5.10 of the Linux man-pages project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at <https://www.kernel.org/doc/man-pages/>.

GNU

2020-11-01

GETPWNAM(3)