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

***\$ man getpwent\_r.3***

GETPWENT\_R(3)          Linux Programmer's Manual          GETPWENT\_R(3)

NAME

getpwent\_r, fgetpwent\_r - get passwd file entry reentrantly

SYNOPSIS

```
#include <pwd.h>
```

```
int getpwent_r(struct passwd *pwbuf, char *buf,  
               size_t buflen, struct passwd **pwbufp);
```

```
int fgetpwent_r(FILE *stream, struct passwd *pwbuf, char *buf,  
                size_t buflen, struct passwd **pwbufp);
```

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

```
getpwent_r(),
```

Since glibc 2.19:

```
  _DEFAULT_SOURCE
```

Glibc 2.19 and earlier:

```
  _BSD_SOURCE || _SVID_SOURCE
```

```
fgetpwent_r():
```

Since glibc 2.19:

```
  _DEFAULT_SOURCE
```

Glibc 2.19 and earlier:

`_SVID_SOURCE`

## DESCRIPTION

The functions `getpwent_r()` and `fgetpwent_r()` are the reentrant versions of `getpwent(3)` and `fgetpwent(3)`. The former reads the next `passwd` entry from the stream initialized by `setpwent(3)`. The latter reads the next `passwd` entry from stream.

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 */
};
```

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

The nonreentrant functions return a pointer to static storage, where this static storage contains further pointers to user name, password, `gecos` field, home directory and shell. The reentrant functions described here return all of that in caller-provided buffers. First of all there is the buffer `pwbuf` that can hold a `struct passwd`. And next the buffer `buf` of size `buflen` that can hold additional strings. The result of these functions, the `struct passwd` read from the stream, is stored in the provided buffer `*pwbuf`, and a pointer to this `struct passwd` is returned in `*pwbufp`.

## RETURN VALUE

On success, these functions return 0 and `*pwbufp` is a pointer to the `struct passwd`. On error, these functions return an error value and `*pwbufp` is NULL.

## ERRORS

ENOENT No more entries.

ERANGE Insufficient buffer space supplied. Try again with larger buf?

fer.

### ATTRIBUTES

For an explanation of the terms used in this section, see at?

tributes(7).

??

?Interface ? Attribute ? Value ?

??

?getpwent\_r() ? Thread safety ? MT-Unsafe race:pwent locale ?

??

?fgetpwent\_r() ? Thread safety ? MT-Safe ?

??

In the above table, pwent in race:pwent signifies that if any of the functions setpwent(), getpwent(), endpwent(), or getpwent\_r() are used in parallel in different threads of a program, then data races could occur.

### CONFORMING TO

These functions are GNU extensions, done in a style resembling the POSIX version of functions like getpwnam\_r(3). Other systems use the prototype

```
struct passwd *
getpwent_r(struct passwd *pwd, char *buf, int buflen);
```

or, better,

```
int
getpwent_r(struct passwd *pwd, char *buf, int buflen,
FILE **pw_fp);
```

### NOTES

The function getpwent\_r() is not really reentrant since it shares the reading position in the stream with all other threads.

### EXAMPLES

```
#define _GNU_SOURCE
#include <pwd.h>
#include <stdio.h>
```

```

#include <stdint.h>

#define BUFLLEN 4096

int
main(void)
{
    struct passwd pw;
    struct passwd *pwp;
    char buf[BUFLLEN];

    int i;

    setpwent();

    while (1) {
        i = getpwent_r(&pw, buf, sizeof(buf), &pwp);
        if (i)
            break;

        printf("%s (%jd)\tHOME %s\tSHELL %s\n", pwp->pw_name,
            (intmax_t) pwp->pw_uid, pwp->pw_dir, pwp->pw_shell);
    }

    endpwent();

    exit(EXIT_SUCCESS);
}

```

#### SEE ALSO

fgetpwent(3), getpw(3), getpwent(3), getpwnam(3), getpwuid(3), putpwent(3), passwd(5)

#### COLOPHON

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