



Red Hat Enterprise Linux Release 9.2 Manual Pages on 'fgetpwent_r.3' command

\$ man fgetpwent_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 en?

try 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 `attributes(7)`.

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?Interface ? Attribute ? Value ?

????????????????????????????????????????????????????????????

?getpwent_r() ? Thread safety ? MT-Unsafe race:pwent locale ?

????????????????????????????????????????????????????????????

?fgetpwent_r() ? Thread safety ? MT-Safe ?

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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[BUFLen];

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), putp?
went(3), passwd(5)

COLOPHON

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GNU 2020-11-01 GETPWENT_R(3)