

NAME

getpwent, setpwent, endpwent – get password file entry

SYNOPSIS

```
#include <sys/types.h>
#include <pwd.h>

struct passwd *getpwent(void);

void setpwent(void);

void endpwent(void);
```

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

```
getpwent(), setpwent(), endpwent():
    _XOPEN_SOURCE >= 500
    || /* Glibc since 2.19: */ _DEFAULT_SOURCE
    || /* Glibc versions <= 2.19: */ _BSD_SOURCE || _SVID_SOURCE
```

DESCRIPTION

The **getpwent()** function returns a pointer to a structure containing the broken-out fields of a record from the password database (e.g., the local password file */etc/passwd*, NIS, and LDAP). The first time **getpwent()** is called, it returns the first entry; thereafter, it returns successive entries.

The **setpwent()** function rewinds to the beginning of the password database.

The **endpwent()** function is used to close the password database after all processing has been performed.

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 */
};
```

When **shadow(5)** passwords are enabled (which is default on many GNU/Linux installations) the content of *pw_passwd* is usually not very useful. In such a case most passwords are stored in a separate file.

The variable *pw_shell* may be empty, in which case the system will execute the default shell (*/bin/sh*) for the user.

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

RETURN VALUE

The **getpwent()** function returns a pointer to a *passwd* structure, or NULL if there are no more entries or an error occurred. 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()**, **getpwnam(3)**, or **getpwuid(3)**. (Do not pass the returned pointer to **free(3)**.)

ERRORS**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)**.

Interface	Attribute	Value
getpwent()	Thread safety	MT-Unsafe race:pwent race:pwentbuf locale
setpwent() , endpwent()	Thread safety	MT-Unsafe race:pwent locale

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

CONFORMING TO

POSIX.1-2001, POSIX.1-2008, SVr4, 4.3BSD. The *pw_gecos* field is not specified in POSIX, but is present on most implementations.

SEE ALSO

fgetpwent(3), **getpw(3)**, **getpwent_r(3)**, **getpwnam(3)**, **getpwuid(3)**, **putpwent(3)**, **shadow(5)**, **passwd(5)**

COLOPHON

This page is part of release 5.05 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/>.