

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

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