

NAME

getmntent, setmntent, addmntent, endmntent, hasmntopt, getmntent_r – get filesystem descriptor file entry

LIBRARY

Standard C library (*libc*, *-lc*)

SYNOPSIS

```
#include <stdio.h>
#include <mntent.h>

FILE *setmntent(const char *path, const char *type);

struct mntent *getmntent(FILE *stream);

int addmntent(FILE *restrict stream,
              const struct mntent *restrict mnt);

int endmntent(FILE *stream);

char *hasmntopt(const struct mntent *mnt, const char *opt);

/* GNU extension */
#include <mntent.h>

struct mntent *getmntent_r(int size;
                          FILE *restrict stream,
                          struct mntent *restrict mntbuf,
                          char buf[restrict size], int size);
```

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

```
getmntent_r():
    Since glibc 2.19:
        _DEFAULT_SOURCE
    glibc 2.19 and earlier:
        _BSD_SOURCE || _SVID_SOURCE
```

DESCRIPTION

These routines are used to access the filesystem description file */etc/fstab* and the mounted filesystem description file */etc/mtab*.

The **setmntent()** function opens the filesystem description file *path* and returns a file pointer which can be used by **getmntent()**. The argument *type* is the type of access required and can take the same values as the *mode* argument of **fopen(3)**. The returned stream should be closed using **endmntent()** rather than **fclose(3)**.

The **getmntent()** function reads the next line of the filesystem description file from *stream* and returns a pointer to a structure containing the broken out fields from a line in the file. The pointer points to a static area of memory which is overwritten by subsequent calls to **getmntent()**.

The **addmntent()** function adds the *mntent* structure *mnt* to the end of the open *stream*.

The **endmntent()** function closes the *stream* associated with the filesystem description file.

The **hasmntopt()** function scans the *mnt_opts* field (see below) of the *mntent* structure *mnt* for a substring that matches *opt*. See *<mntent.h>* and **mount(8)** for valid mount options.

The reentrant **getmntent_r()** function is similar to **getmntent()**, but stores the *mntent* structure in the provided **mntbuf*, and stores the strings pointed to by the entries in that structure in the provided array *buf* of size *size*.

The *mntent* structure is defined in *<mntent.h>* as follows:

```
struct mntent {
    char *mnt_fsname; /* name of mounted filesystem */
    char *mnt_dir;    /* filesystem path prefix */
```

```

    char *mnt_type;      /* mount type (see mntent.h) */
    char *mnt_opts;      /* mount options (see mntent.h) */
    int   mnt_freq;      /* dump frequency in days */
    int   mnt_passno;     /* pass number on parallel fsck */
};

```

Since fields in the `mtab` and `fstab` files are separated by whitespace, octal escapes are used to represent the characters space (`\040`), tab (`\011`), newline (`\012`), and backslash (`\\`) in those files when they occur in one of the four strings in a `mntent` structure. The routines `addmntent()` and `getmntent()` will convert from string representation to escaped representation and back. When converting from escaped representation, the sequence `\134` is also converted to a backslash.

RETURN VALUE

The `getmntent()` and `getmntent_r()` functions return a pointer to the `mntent` structure or `NULL` on failure.

The `addmntent()` function returns 0 on success and 1 on failure.

The `endmntent()` function always returns 1.

The `hasmntopt()` function returns the address of the substring if a match is found and `NULL` otherwise.

FILES

`/etc/fstab`

filesystem description file

`/etc/mtab`

mounted filesystem description file

ATTRIBUTES

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

Interface	Attribute	Value
<code>setmntent()</code> , <code>endmntent()</code> , <code>hasmntopt()</code>	Thread safety	MT-Safe
<code>getmntent()</code>	Thread safety	MT-Unsafe race:mntentbuf locale
<code>addmntent()</code>	Thread safety	MT-Safe race:stream locale
<code>getmntent_r()</code>	Thread safety	MT-Safe locale

STANDARDS

None.

HISTORY

The nonreentrant functions are from SunOS 4.1.3. A routine `getmntent_r()` was introduced in HP-UX 10, but it returns an `int`. The prototype shown above is glibc-only.

System V also has a `getmntent()` function but the calling sequence differs, and the returned structure is different. Under System V `/etc/mnttab` is used. 4.4BSD and Digital UNIX have a routine `getmntinfo()`, a wrapper around the system call `getfsstat()`.

SEE ALSO

`fopen(3)`, `fstab(5)`, `mount(8)`