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

$ man fstat.3p

FSTAT(3P) POSIX Programmer's Manual FSTAT(3P)

PROLOG

This manual page is part of the POSIX Programmer's Manual. The Linux implementation of this interface may differ (consult the corresponding Linux manual page for details of Linux behavior), or the interface may not be implemented on Linux.

NAME

fstat ? get file status

SYNOPSIS

#include <sys/stat.h>

int fstat(int fildes, struct stat *buf);

DESCRIPTION

The fstat() function shall obtain information about an open file asso? ciated with the file descriptor fildes, and shall write it to the area pointed to by buf.

If fildes references a shared memory object, the implementation shall update in the stat structure pointed to by the buf argument the st_uid, st_gid, st_size, and st_mode fields, and only the S_IRUSR, S_IWUSR, S_IRGRP, S_IWGRP, S_IROTH, and S_IWOTH file permission bits need be valid. The implementation may update other fields and flags.

If fildes references a typed memory object, the implementation shall update in the stat structure pointed to by the buf argument the st_uid, st_gid, st_size, and st_mode fields, and only the S_IRUSR, S_IWUSR,

S_IRGRP, S_IWGRP, S_IROTH, and S_IWOTH file permission bits need be valid. The implementation may update other fields and flags.

The buf argument is a pointer to a stat structure, as defined in <sys/stat.h>, into which information is placed concerning the file.

For all other file types defined in this volume of POSIX.1?2017, the structure members st_mode, st_ino, st_dev, st_uid, st_gid, st_atim, st_ctim, and st_mtim shall have meaningful values and the value of the st_nlink member shall be set to the number of links to the file.

An implementation that provides additional or alternative file access control mechanisms may, under implementation-defined conditions, cause fstat() to fail.

The fstat() function shall update any time-related fields (as described in the Base Definitions volume of POSIX.1?2017, Section 4.9, File Times Update), before writing into the stat structure.

RETURN VALUE

Upon successful completion, 0 shall be returned. Otherwise, -1 shall be returned and errno set to indicate the error.

ERRORS

The fstat() function shall fail if:

EBADF The fildes argument is not a valid file descriptor.

EIO An I/O error occurred while reading from the file system.

EOVERFLOW

The file size in bytes or the number of blocks allocated to the file or the file serial number cannot be represented correctly in the structure pointed to by buf.

The fstat() function may fail if:

EOVERFLOW

One of the values is too large to store into the structure pointed to by the buf argument.

The following sections are informative.

EXAMPLES

Obtaining File Status Information

The following example shows how to obtain file status information for a

file named /home/cnd/mod1. The structure variable buffer is defined for the stat structure. The /home/cnd/mod1 file is opened with read/write privileges and is passed to the open file descriptor fildes.

```
#include <sys/types.h>
#include <sys/stat.h>
#include <fcntl.h>
struct stat buffer;
int         status;
...
fildes = open("/home/cnd/mod1", O_RDWR);
status = fstat(fildes, &buffer);
```

APPLICATION USAGE

None.

RATIONALE

None.

FUTURE DIRECTIONS

None.

SEE ALSO

fstatat()

The Base Definitions volume of POSIX.1?2017, Section 4.9, File Times Update, <sys_stat.h>, <sys_types.h>

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files to man page format. To report such errors, see https://www.ker?

nel.org/doc/man-pages/reporting_bugs.html .