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

$ man fstatvfs.3p

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

fstatvfs, statvfs ? get file system information

SYNOPSIS

```
#include <sys/statvfs.h>
int fstatvfs(int fildes, struct statvfs *buf);
int statvfs(const char *restrict path, struct statvfs *restrict buf);
```

DESCRIPTION

The fstatvfs() function shall obtain information about the file system containing the file referenced by fildes.

The statvfs() function shall obtain information about the file system containing the file named by path.

For both functions, the buf argument is a pointer to a statvfs struc? ture that shall be filled. Read, write, or execute permission of the named file is not required.

The following flags can be returned in the f_flag member:

ST_RDONLY Read-only file system.

ST_NOSUID Setuid/setgid bits ignored by exec.

It is unspecified whether all members of the statvfs structure have meaningful values on all file systems.

RETURN VALUE

Upon successful completion, statvfs() shall return 0. Otherwise, it shall return -1 and set errno to indicate the error.

ERRORS

The fstatvfs() and statvfs() functions shall fail if:

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

EINTR A signal was caught during execution of the function.

EOVERFLOW

One of the values to be returned cannot be represented correctly in the structure pointed to by buf.

The fstatvfs() function shall fail if:

EBADF The fildes argument is not an open file descriptor.

The statvfs() function shall fail if:

EACCES Search permission is denied on a component of the path prefix.

ELOOP A loop exists in symbolic links encountered during resolution of the path argument.

ENAMETOOLONG

The length of a component of a pathname is longer than {NAME_MAX}.

ENOENT A component of path does not name an existing file or path is an empty string.

ENOTDIR

A component of the path prefix names an existing file that is neither a directory nor a symbolic link to a directory, or the path argument contains at least one non-<slash> character and ends with one or more trailing <slash> characters and the last pathname component names an existing file that is neither a di? rectory nor a symbolic link to a directory.

The statvfs() function may fail if:

ELOOP More than {SYMLOOP_MAX} symbolic links were encountered during resolution of the path argument.

ENAMETOOLONG

The length of a pathname exceeds {PATH_MAX}, or pathname resolu?

tion of a symbolic link produced an intermediate result with a

length that exceeds {PATH_MAX}.

The following sections are informative.

EXAMPLES

Obtaining File System Information Using fstatvfs()

The following example shows how to obtain file system information for

the file system upon which the file named /home/cnd/mod1 resides, using

the fstatvfs() function. The /home/cnd/mod1 file is opened with

read/write privileges and the open file descriptor is passed to the fs?

tatvfs() function.

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

Obtaining File System Information Using statvfs()

The following example shows how to obtain file system information for

the file system upon which the file named /home/cnd/mod1 resides, using

the statvfs() function.

```
#include <sys/statvfs.h>
struct statvfs buffer;
int          status;
...
status = statvfs("/home/cnd/mod1", &buffer);
```

APPLICATION USAGE

None.

RATIONALE

None.

FUTURE DIRECTIONS

None.

SEE ALSO

chmod(), chown(), creat(), dup(), exec, fcntl(), link(), mknod(), open(), pipe(), read(), time(), unlink(), utime(), write()

The Base Definitions volume of POSIX.1?2017, <sys_statvfs.h>