

NAME

`faccessat` – check user's permissions of a file relative to a directory file descriptor

SYNOPSIS

```
#define _ATFILE_SOURCE
#include <fcntl.h> /* Definition of AT_* constants */
#include <unistd.h>
```

```
int faccessat(int dirfd, const char *pathname, int mode, int flags);
```

DESCRIPTION

The `faccessat()` system call operates in exactly the same way as `access(2)`, except for the differences described in this manual page.

If the `pathname` given in `pathname` is relative, then it is interpreted relative to the directory referred to by the file descriptor `dirfd` (rather than relative to the current working directory of the calling process, as is done by `access(2)` for a relative `pathname`).

If `pathname` is relative and `dirfd` is the special value `AT_FDCWD`, then `pathname` is interpreted relative to the current working directory of the calling process (like `access(2)`).

If `pathname` is absolute, then `dirfd` is ignored.

`flags` is constructed by ORing together zero or more of the following values:

AT_EACCESS

Perform access checks using the effective user and group IDs. By default, `faccessat()` uses the real IDs (like `access(2)`).

AT_SYMLINK_NOFOLLOW

If `pathname` is a symbolic link, do not dereference it: instead return information about the link itself.

RETURN VALUE

On success, (all requested permissions granted) `faccessat()` returns 0. On error, `-1` is returned and `errno` is set to indicate the error.

ERRORS

The same errors that occur for `access(2)` can also occur for `faccessat()`. The following additional errors can occur for `faccessat()`:

EBADF

`dirfd` is not a valid file descriptor.

EINVAL

Invalid flag specified in `flags`.

ENOTDIR

`pathname` is relative and `dirfd` is a file descriptor referring to a file other than a directory.

VERSIONS

`faccessat()` was added to Linux in kernel 2.6.16.

CONFORMING TO

POSIX.1-2008.

NOTES

See `openat(2)` for an explanation of the need for `faccessat()`.

Glibc Notes

The `AT_EACCESS` and `AT_SYMLINK_NOFOLLOW` flags are actually implemented within the glibc wrapper function for `faccessat()`. If either of these flags are specified, then the wrapper function employs

fstatat(2) to determine access permissions.

SEE ALSO

access(2), openat(2), euidaccess(3), credentials(7), path_resolution(7), symlink(7)

COLOPHON

This page is part of release 3.22 of the Linux *man-pages* project. A description of the project, and information about reporting bugs, can be found at <http://www.kernel.org/doc/man-pages/>.