NAME

acl_get_fd, **acl_get_fd_np**, **acl_get_file**, **acl_get_link_np** — get an ACL for a file

LIBRARY

Standard C Library (libc, –lc)

SYNOPSIS

```
#include <sys/types.h>
#include <sys/acl.h>

acl_t
acl_get_fd(int fd);

acl_t
acl_get_fd_np(int fd, acl_type_t type);

acl_t
acl_get_file(const char *path_p, acl_type_t type);

acl_t
acl_get_link_np(const char *path_p, acl_type_t type);
```

DESCRIPTION

The **acl_get_fd**(), **acl_get_file**(), **acl_get_link_np**(), and **acl_get_fd_np**() each allow the retrieval of an ACL from a file. The **acl_get_fd**() is a POSIX.1e call that allows the retrieval of an ACL of type ACL_TYPE_ACCESS from a file descriptor. The **acl_get_fd_np**() function is a non-portable form of **acl_get_fd**() that allows the retrieval of any type of ACL from a file descriptor. The **acl_get_file**() function is a POSIX.1e call that allows the retrieval of a specified type of ACL from a file by name; **acl_get_link_np**() is a non-portable variation on **acl_get_file**() which does not follow a symlink if the target of the call is a symlink.

These functions may cause memory to be allocated. The caller should free any releasable memory, when the new ACL is no longer required, by calling acl_free(3) with the *(void *)acl_t* as an argument.

The ACL in the working storage is an independent copy of the ACL associated with the object referred to by *fd*. The ACL in the working storage shall not participate in any access control decisions.

RETURN VALUES

Upon successful completion, the function shall return a pointer to the ACL that was retrieved. Otherwise, a value of *(acl_t)NULL* shall be returned, and *errno* shall be set to indicate the error.

ERRORS

If any of the following conditions occur, the **acl_get_fd**() function shall return a value of *(acl_t)NULL* and set *errno* to the corresponding value:

[EACCES]	Search permission is denied for a component of the path prefix, or the object exists and the process does not have appropriate access rights.
[EBADF]	The *fd* argument is not a valid file descriptor.
[EINVAL]	The ACL type passed is invalid for this file object.
[ENAMETOOLONG]	A component of a pathname exceeded 255 characters, or an entire path name exceeded 1023 characters.
[ENOENT]	The named object does not exist, or the *path_p* argument points to an empty string.
[ENOMEM]	Insufficient memory available to fulfill request.
[EOPNOTSUPP]	The file system does not support ACL retrieval.

SEE ALSO

`acl`(3), `acl_free`(3), `acl_get`(3), `acl_set`(3), `posix1e`(3)

STANDARDS

POSIX.1e is described in IEEE POSIX.1e draft 17.

AUTHORS

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