

NAME

acl_set_fd, **acl_set_fd_np**, **acl_set_file**, **acl_set_link_np** - set an ACL for a file

LIBRARY

Standard C Library (libc, -lc)

SYNOPSIS

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

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

int

```
acl_set_fd(int fd, acl_t acl);
```

int

```
acl_set_fd_np(int fd, acl_t acl, acl_type_t type);
```

int

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

int

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

DESCRIPTION

The **acl_set_fd()**, **acl_set_fd_np()**, **acl_set_file()**, and **acl_set_link_np()** each associate an ACL with an object referred to by *fd* or *path_p*. The **acl_set_fd_np()** and **acl_set_link_np()** functions are not POSIX.1e calls. The **acl_set_fd()** function allows only the setting of ACLs of type `ACL_TYPE_ACCESS` whereas **acl_set_fd_np()** allows the setting of ACLs of any type. The **acl_set_link_np()** function acts on a symlink rather than its target, if the target of the path is a symlink.

Valid values for the *type* argument are:

<code>ACL_TYPE_ACCESS</code>	POSIX.1e access ACL
<code>ACL_TYPE_DEFAULT</code>	POSIX.1e default ACL
<code>ACL_TYPE_NFS4</code>	NFSv4 ACL

Trying to set `ACL_TYPE_NFS4` with *acl* branded as POSIX.1e, or `ACL_TYPE_ACCESS` or `ACL_TYPE_DEFAULT` with ACL branded as NFSv4, will result in error.

IMPLEMENTATION NOTES

FreeBSD's support for POSIX.1e interfaces and features is still under development at this time.

RETURN VALUES

Upon successful completion, the value 0 is returned; otherwise the value -1 is returned and the global variable *errno* is set to indicate the error.

ERRORS

If any of the following conditions occur, these functions shall return -1 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 <i>fd</i> argument is not a valid file descriptor.
[EINVAL]	Argument <i>acl</i> does not point to a valid ACL for this object, or the ACL type specified in <i>type</i> is invalid for this object, or there is branding mismatch.
[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 <i>path_p</i> argument points to an empty string.
[ENOMEM]	Insufficient memory available to fulfill request.
[ENOSPC]	The directory or file system that would contain the new ACL cannot be extended, or the file system is out of file allocation resources.
[EOPNOTSUPP]	The file system does not support ACL retrieval.
[EROFS]	This function requires modification of a file system which is currently read-only.

SEE ALSO

`acl(3)`, `acl_delete(3)`, `acl_get(3)`, `acl_get_brand_np(3)`, `acl_valid(3)`, `posix1e(3)`

STANDARDS

POSIX.1e is described in IEEE POSIX.1e draft 17. Discussion of the draft continues on the cross-platform POSIX.1e implementation mailing list. To join this list, see the FreeBSD POSIX.1e implementation page for more information.

HISTORY

POSIX.1e support was introduced in FreeBSD 4.0, and development continues.

AUTHORS

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