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 where as **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:

    ACL_TYPE_ACCESS   POSIX.1e access ACL
    ACL_TYPE_DEFAULT   POSIX.1e default ACL
    ACL_TYPE_NFS4   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 *fd* argument is not a valid file descriptor.

　　[EINVAL]　　　　　Argument *acl* does not point to a valid ACL for this object, or the ACL type
　　　　　　　　　　　　specified in *type* 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 *path_p* 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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