

NAME

acl_add_perm - add permissions to a permission set

LIBRARY

Standard C Library (libc, -lc)

SYNOPSIS

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

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

```
int
```

```
acl_add_perm(acl_permset_t permset_d, acl_perm_t perm);
```

DESCRIPTION

The **acl_add_perm()** function is a POSIX.1e call that adds the permission contained in *perm* to the permission set *permset_d*.

Note: it is not considered an error to attempt to add permissions that already exist in the permission set.

For POSIX.1e ACLs, valid values are:

ACL_EXECUTE	Execute permission
ACL_WRITE	Write permission
ACL_READ	Read permission

For NFSv4 ACLs, valid values are:

ACL_READ_DATA	Read permission
ACL_LIST_DIRECTORY	Same as ACL_READ_DATA
ACL_WRITE_DATA	Write permission, or permission to create files
ACL_ADD_FILE	Same as ACL_READ_DATA
ACL_APPEND_DATA	Permission to create directories. Ignored for files
ACL_ADD_SUBDIRECTORY	Same as ACL_APPEND_DATA
ACL_READ_NAMED_ATTRS	Ignored
ACL_WRITE_NAMED_ATTRS	Ignored
ACL_EXECUTE	Execute permission
ACL_DELETE_CHILD	Permission to delete files and subdirectories
ACL_READ_ATTRIBUTES	Permission to read basic attributes
ACL_WRITE_ATTRIBUTES	Permission to change basic attributes
ACL_DELETE	Permission to delete the object this ACL is placed on

ACL_READ_ACL	Permission to read ACL
ACL_WRITE_ACL	Permission to change the ACL and file mode
ACL_SYNCHRONIZE	Ignored

Calling **acl_add_perm()** with *perm* equal to ACL_WRITE or ACL_READ brands the ACL as POSIX. Calling it with ACL_READ_DATA, ACL_LIST_DIRECTORY, ACL_WRITE_DATA, ACL_ADD_FILE, ACL_APPEND_DATA, ACL_ADD_SUBDIRECTORY, ACL_READ_NAMED_ATTRS, ACL_WRITE_NAMED_ATTRS, ACL_DELETE_CHILD, ACL_READ_ATTRIBUTES, ACL_WRITE_ATTRIBUTES, ACL_DELETE, ACL_READ_ACL, ACL_WRITE_ACL or ACL_SYNCHRONIZE brands the ACL as NFSv4.

RETURN VALUES

The **acl_add_perm()** function returns the value 0 if successful; otherwise the value -1 is returned and the global variable *errno* is set to indicate the error.

ERRORS

The **acl_add_perm()** function fails if:

[EINVAL] Argument *permset_d* is not a valid descriptor for a permission set within an ACL entry. Argument *perm* does not contain a valid *acl_perm_t* value. ACL is already branded differently.

SEE ALSO

acl(3), acl_clear_perms(3), acl_delete_perm(3), acl_get_brand_np(3), acl_get_permset(3), acl_set_permset(3), posix1e(3)

STANDARDS

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

HISTORY

POSIX.1e support was introduced in FreeBSD 4.0. The **acl_add_perm()** function was added in FreeBSD 5.0.

AUTHORS

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