

**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 <i>permset_d</i> is not a valid descriptor for a permission set within an ACL entry. Argument <i>perm</i> does not contain a valid <i>acl_perm_t</i> value. ACL is already branded differently.
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## 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

The **acl\_add\_perm()** function was written by Chris D. Faulhaber <jedgar@fxp.org>.