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## **Red Hat Enterprise Linux Release 9.2 Manual Pages on 'ftok.3' command**

**\$ man ftok.3**

FTOK(3)                    Linux Programmer's Manual                    FTOK(3)

NAME

ftok - convert a pathname and a project identifier to a System V IPC key

SYNOPSIS

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

key_t ftok(const char *pathname, int proj_id);
```

DESCRIPTION

The ftok() function uses the identity of the file named by the given pathname (which must refer to an existing, accessible file) and the least significant 8 bits of proj\_id (which must be nonzero) to generate a key\_t type System V IPC key, suitable for use with msgget(2), semget(2), or shmget(2).

The resulting value is the same for all pathnames that name the same file, when the same value of proj\_id is used. The value returned should be different when the (simultaneously existing) files or the project IDs differ.

RETURN VALUE

On success, the generated key\_t value is returned. On failure -1 is returned, with errno indicating the error as for the stat(2) system call.

ATTRIBUTES

For an explanation of the terms used in this section, see at?

tributes(7).

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?Interface ? Attribute ? Value ?

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?ftok() ? Thread safety ? MT-Safe ?

??

### CONFORMING TO

POSIX.1-2001, POSIX.1-2008.

### NOTES

On some ancient systems, the prototype was:

```
key_t ftok(char *pathname, char proj_id);
```

Today, proj\_id is an int, but still only 8 bits are used. Typical us? age has an ASCII character proj\_id, that is why the behavior is said to be undefined when proj\_id is zero.

Of course, no guarantee can be given that the resulting key\_t is unique. Typically, a best-effort attempt combines the given proj\_id byte, the lower 16 bits of the inode number, and the lower 8 bits of the device number into a 32-bit result. Collisions may easily happen, for example between files on /dev/hda1 and files on /dev/sda1.

### EXAMPLES

See semget(2).

### SEE ALSO

msgget(2), semget(2), shmget(2), stat(2), sysvipc(7)

### COLOPHON

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