



Rocky Enterprise Linux 9.2 Manual Pages on command 'ftok.3'

\$ 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)`.

??

?Interface ? Attribute ? Value ?

??

?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

This page is part of release 5.10 of the Linux man-pages project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at

