



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

C:\>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 `attributes(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 usage 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.

SEE ALSO

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

COLOPHON

This page is part of release 5.05 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 <https://www.kernel.org/doc/man-pages/>.