



Rocky Enterprise Linux 9.2 Manual Pages on command 'nice.2'

\$ man nice.2

NICE(2) Linux Programmer's Manual NICE(2)

NAME

nice - change process priority

SYNOPSIS

```
#include <unistd.h>
```

```
int nice(int inc);
```

Feature Test Macro Requirements for glibc (see feature_test_macros(7)):

```
nice(): _XOPEN_SOURCE
```

```
|| /* Since glibc 2.19: */ _DEFAULT_SOURCE
```

```
|| /* Glibc versions <= 2.19: */ _BSD_SOURCE || _SVID_SOURCE
```

DESCRIPTION

nice() adds inc to the nice value for the calling thread. (A higher nice value means a lower priority.)

The range of the nice value is +19 (low priority) to -20 (high priority). Attempts to set a nice value outside the range are clamped to the range.

Traditionally, only a privileged process could lower the nice value (i.e., set a higher priority). However, since Linux 2.6.12, an unpriv?

ileged process can decrease the nice value of a target process that has a suitable RLIMIT_NICE soft limit; see getrlimit(2) for details.

RETURN VALUE

On success, the new nice value is returned (but see NOTES below). On error, -1 is returned, and errno is set appropriately.

A successful call can legitimately return -1. To detect an error, set errno to 0 before the call, and check whether it is nonzero after nice() returns -1.

ERRORS

EPERM The calling process attempted to increase its priority by supplying a negative inc but has insufficient privileges. Under Linux, the CAP_SYS_NICE capability is required. (But see the discussion of the RLIMIT_NICE resource limit in setrlimit(2).)

CONFORMING TO

POSIX.1-2001, POSIX.1-2008, SVr4, 4.3BSD. However, the raw system call and (g)libc (earlier than glibc 2.2.4) return value is nonstandard, see below.

NOTES

For further details on the nice value, see sched(7).

Note: the addition of the "autogroup" feature in Linux 2.6.38 means that the nice value no longer has its traditional effect in many circumstances. For details, see sched(7).

C library/kernel differences

POSIX.1 specifies that nice() should return the new nice value. However, the raw Linux system call returns 0 on success. Likewise, the nice() wrapper function provided in glibc 2.2.3 and earlier returns 0 on success.

Since glibc 2.2.4, the nice() wrapper function provided by glibc provides conformance to POSIX.1 by calling getpriority(2) to obtain the new nice value, which is then returned to the caller.

SEE ALSO

nice(1), renice(1), fork(2), getpriority(2), getrlimit(2), setpriority(2), capabilities(7), sched(7)

COLOPHON

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