

NAME

reboot – reboot or enable/disable Ctrl-Alt-Del

SYNOPSIS

```
/* For libc4 and libc5 the library call and the system call
   are identical, and since kernel version 2.1.30 there are
   symbolic names LINUX_REBOOT_* for the constants and a
   fourth argument to the call: */
```

```
#include <unistd.h>
#include <linux/reboot.h>
```

```
int reboot(int magic, int magic2, int cmd, void *arg);
```

```
/* Under glibc some of the constants involved have gotten
   symbolic names RB_*, and the library call is a 1-argument
   wrapper around the 3-argument system call: */
```

```
#include <unistd.h>
#include <sys/reboot.h>
```

```
int reboot(int cmd);
```

DESCRIPTION

The **reboot()** call reboots the system, or enables/disables the reboot keystroke (abbreviated CAD, since the default is Ctrl-Alt-Delete; it can be changed using **loadkeys(1)**).

This system call will fail (with **EINVAL**) unless *magic* equals **LINUX_REBOOT_MAGIC1** (that is, 0xfeefdead) and *magic2* equals **LINUX_REBOOT_MAGIC2** (that is, 672274793). However, since 2.1.17 also **LINUX_REBOOT_MAGIC2A** (that is, 85072278) and since 2.1.97 also **LINUX_REBOOT_MAGIC2B** (that is, 369367448) and since 2.5.71 also **LINUX_REBOOT_MAGIC2C** (that is, 537993216) are permitted as value for *magic2*. (The hexadecimal values of these constants are meaningful.) The *cmd* argument can have the following values:

LINUX_REBOOT_CMD_RESTART

(**RB_AUTOBOOT**, 0x1234567). The message "Restarting system." is printed, and a default restart is performed immediately. If not preceded by a **sync(2)**, data will be lost.

LINUX_REBOOT_CMD_HALT

(**RB_HALT_SYSTEM**, 0xcdef0123; since 1.1.76). The message "System halted." is printed, and the system is halted. Control is given to the ROM monitor, if there is one. If not preceded by a **sync(2)**, data will be lost.

LINUX_REBOOT_CMD_POWER_OFF

(0x4321fedc; since 2.1.30). The message "Power down." is printed, the system is stopped, and all power is removed from the system, if possible. If not preceded by a **sync(2)**, data will be lost.

LINUX_REBOOT_CMD_RESTART2

(0xa1b2c3d4; since 2.1.30). The message "Restarting system with command '%s'" is printed, and a restart (using the command string given in *arg*) is performed immediately. If not preceded by a **sync(2)**, data will be lost.

LINUX_REBOOT_CMD_CAD_ON

(**RB_ENABLE_CAD**, 0x89abcdef). CAD is enabled. This means that the CAD keystroke will immediately cause the action associated with **LINUX_REBOOT_CMD_RESTART**.

LINUX_REBOOT_CMD_CAD_OFF

(**RB_DISABLE_CAD**, 0). CAD is disabled. This means that the CAD keystroke will cause a **SIGINT** signal to be sent to init (process 1), whereupon this process may decide upon a proper action (maybe: kill all processes, sync, reboot).

Only the superuser may call **reboot()**.

The precise effect of the above actions depends on the architecture. For the i386 architecture, the additional argument does not do anything at present (2.1.122), but the type of reboot can be determined by kernel command-line arguments ("reboot=...") to be either warm or cold, and either hard or through the BIOS.

RETURN VALUE

For the values of *cmd* that stop or restart the system, a successful call to **reboot()** does not return. For the other *cmd* values, zero is returned on success. In all cases, -1 is returned on failure, and *errno* is set appropriately.

ERRORS

EFAULT

Problem with getting userspace data under **LINUX_REBOOT_CMD_RESTART2**.

EINVAL

Bad magic numbers or *cmd*.

EPERM

The calling process has insufficient privilege to call **reboot()**; the **CAP_SYS_BOOT** capability is required.

CONFORMING TO

reboot() is Linux-specific, and should not be used in programs intended to be portable.

SEE ALSO

sync(2), **bootparam(7)**, **capabilities(7)**, **ctrlaltdel(8)**, **halt(8)**, **reboot(8)**

COLOPHON

This page is part of release 3.22 of the Linux *man-pages* project. A description of the project, and information about reporting bugs, can be found at <http://www.kernel.org/doc/man-pages/>.