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

C:\>man reboot.2

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

NAME

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

SYNOPSIS

```
/* 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 and most alternative libc's (including uclibc, dietlibc,
   musl and a few others), some of the constants involved have gotten
   symbolic names RB_*, and the library call is a 1-argument
   wrapper around the 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 (ab?

breviated CAD, since the default is Ctrl-Alt-Delete; it can be changed using load?

keys(1)).

This system call fails (with the error EINVAL) unless magic equals LINUX_RE?

BOOT_MAGIC1 (that is, 0xfee1dead) 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 values for magic2. (The hexadecimal values of these constants are meaningful.)

The cmd argument can have the following values:

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).

LINUX_REBOOT_CMD_CAD_ON

(RB_ENABLE_CAD, 0x89abcdef). CAD is enabled. This means that the CAD key? stroke will immediately cause the action associated with LINUX_RE? BOOT_CMD_RESTART.

LINUX_REBOOT_CMD_HALT

(RB_HALT_SYSTEM, 0xcdef0123; since Linux 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_KEXEC

(RB_KEXEC, 0x45584543, since Linux 2.6.13). Execute a kernel that has been loaded earlier with kexec_load(2). This option is available only if the kernel was configured with CONFIG_KEXEC.

LINUX_REBOOT_CMD_POWER_OFF

(RB_POWER_OFF, 0x4321fedc; since Linux 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_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_RESTART2

(0xa1b2c3d4; since Linux 2.1.30). The message "Restarting system with com? mand '%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_SW_SUSPEND

(RB_SW_SUSPEND, 0xd000fce1; since Linux 2.5.18). The system is suspended (hibernated) to disk. This option is available only if the kernel was con? figured with CONFIG_HIBERNATION.

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 ("re? boot=...") to be either warm or cold, and either hard or through the BIOS.

Behavior inside PID namespaces

Since Linux 3.4, if reboot() is called from a PID namespace other than the initial PID namespace with one of the cmd values listed below, it performs a "reboot" of that namespace: the "init" process of the PID namespace is immediately terminated, with the effects described in pid_namespaces(7).

The values that can be supplied in cmd when calling reboot() in this case are as follows:

LINUX_REBOOT_CMD_RESTART, LINUX_REBOOT_CMD_RESTART2

The "init" process is terminated, and wait(2) in the parent process reports that the child was killed with a SIGHUP signal.

LINUX_REBOOT_CMD_POWER_OFF, LINUX_REBOOT_CMD_HALT

The "init" process is terminated, and wait(2) in the parent process reports that the child was killed with a SIGINT signal.

For the other cmd values, reboot() returns -1 and errno is set to EINVAL.

RETURN VALUE

For the values of cmd that stop or restart the system, a successful call to re? boot() 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 user-space data under LINUX_REBOOT_CMD_RESTART2.

EINVAL Bad magic numbers or cmd.

EPERM The calling process has insufficient privilege to call reboot(); the caller must have the CAP_SYS_BOOT inside its user namespace.

CONFORMING TO

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

SEE ALSO

systemctl(1), systemd(1), kexec_load(2), sync(2), bootparam(7), capabilities(7), ctrlaltdel(8), halt(8), shutdown(8)

COLOPHON

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