NAME

swapon, **swapoff** - control devices for interleaved paging/swapping

LIBRARY

Standard C Library (libc, -lc)

SYNOPSIS

#include <unistd.h>

int
swapon(*const char *special*);

int
swapoff(*const char *special*, *u_int flags*);

DESCRIPTION

The **swapon**() system call makes the block device *special* available to the system for allocation for paging and swapping. The names of potentially available devices are known to the system and defined at system configuration time. The size of the swap area on *special* is calculated at the time the device is first made available for swapping.

The **swapoff**() system call disables paging and swapping on the given device. All associated swap metadata are deallocated, and the device is made available for other purposes.

The *special* argument points to the name of the device or file used for swapping. *flags* argument takes the following flags:

SWAPOFF_FORCE Overrides a very conservative check that prevents swapoff if the total amount of free memory and remaining swap devices space might be unsufficient for the system to continue operating.

RETURN VALUES

If an error has occurred, a value of -1 is returned and *errno* is set to indicate the error.

ERRORS

Both **swapon**() and **swapoff**() can fail if:

[ENOTDIR] A component of the path prefix is not a directory.

[ENAMETOOLONG]

A component of a pathname exceeded 255 characters, or an entire path name exceeded 1023 characters.

[ENOENT] The named device does not exist.

[EACCES] Search permission is denied for a component of the path prefix.

[ELOOP] Too many symbolic links were encountered in translating the pathname.

[EPERM] The caller is not the super-user.

[EFAULT] The *special* argument points outside the process's allocated address space.

Additionally, **swapon**() can fail for the following reasons:

[ENOTBLK] The *special* argument is not a block device.

[EBUSY] The device specified by *special* has already been made available for swapping

[ENXIO] The major device number of *special* is out of range (this indicates no device driver exists for the associated hardware).

[EIO] An I/O error occurred while opening the swap device.

[EINTEGRITY] Corrupted data was detected while reading from the file system to open the swap device.

Lastly, **swapoff**() can fail if:

[EINVAL] The system is not currently swapping to *special*.

[ENOMEM] Not enough virtual memory is available to safely disable paging and swapping to the given device.

SEE ALSO

config(8), swapon(8), sysctl(8)

HISTORY

The **swapon**() system call appeared in 4.0BSD. The **swapoff**() system call appeared in FreeBSD 5.0.