NAME

siginterrupt **-** allow signals to interrupt system calls

LIBRARY

Standard C Library (libc, -lc)

SYNOPSIS

#include <signal.h>

int
siginterrupt(*int sig*, *int flag*);

DESCRIPTION

The **siginterrupt**() function is used to change the system call restart behavior when a system call is interrupted by the specified signal. If the flag is false (0), then system calls will be restarted if they are interrupted by the specified signal and no data has been transferred yet. System call restart has been the default behavior since 4.2BSD, and is the default behaviour for signal(3) on FreeBSD.

If the flag is true (1), then restarting of system calls is disabled. If a system call is interrupted by the specified signal and no data has been transferred, the system call will return -1 with the global variable *errno* set to EINTR. Interrupted system calls that have started transferring data will return the amount of data actually transferred. System call interrupt is the signal behavior found on 4.1BSD and AT&T System V UNIX systems.

Note that the new 4.2BSD signal handling semantics are not altered in any other way. Most notably, signal handlers always remain installed until explicitly changed by a subsequent sigaction(2) call, and the signal mask operates as documented in sigaction(2). Programs may switch between restartable and interruptible system call operation as often as desired in the execution of a program.

Issuing a **siginterrupt**(*3*) call during the execution of a signal handler will cause the new action to take place on the next signal to be caught.

NOTES

This library routine uses an extension of the sigaction(2) system call that is not available in 4.2BSD, hence it should not be used if backward compatibility is needed.

RETURN VALUES

The **siginterrupt**() function returns the value 0 if successful; otherwise the value -1 is returned and the global variable *errno* is set to indicate the error.

ERRORS

The **siginterrupt**() call fails if:

[EINVAL] The *sig* argument is not a valid signal number.

SEE ALSO

sigaction(2), sigprocmask(2), sigsuspend(2), signal(3)

HISTORY

The **siginterrupt**() function appeared in 4.3BSD.