NAME

sem_init - initialize an unnamed semaphore

LIBRARY

Standard C Library (libc, -lc)

SYNOPSIS

#include <semaphore.h>

int
sem_init(*sem_t *sem, int pshared, unsigned int value*);

DESCRIPTION

The **sem_init**() function initializes the unnamed semaphore pointed to by *sem* to have the value *value*.

A non-zero value for *pshared* specifies a shared semaphore that can be used by multiple processes, the semaphore should be located in shared memory region (see mmap(2), shm_open(2), and shmget(2)), any process having read and write access to address *sem* can perform semaphore operations on *sem*.

Following a successful call to **sem_init**(), *sem* can be used as an argument in subsequent calls to sem_wait(3), sem_trywait(3), sem_post(3), and sem_destroy(3). The *sem* argument is no longer valid after a successful call to sem_destroy(3).

RETURN VALUES

The **sem_init**() 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 **sem_init**() function will fail if:

[EINVAL] The *value* argument exceeds SEM_VALUE_MAX.

[ENOSPC] Memory allocation error.

SEE ALSO

sem_destroy(3), sem_getvalue(3), sem_post(3), sem_trywait(3), sem_wait(3)

STANDARDS

The **sem_init**() function conforms to ISO/IEC 9945-1:1996 ("POSIX.1").