



Linux Ubuntu 26.04 Manual Pages on command 'pthread_attr_getguardsize.3'

\$ man pthread_attr_getguardsize.3

pthread_attr_setguardsize(3) Library Functions Manual pthread_attr_setguardsize(3)

NAME

pthread_attr_setguardsize, pthread_attr_getguardsize - set/get guard size attribute in thread attributes object

LIBRARY

POSIX threads library (libpthread, -lpthread)

SYNOPSIS

```
#include <pthread.h>

int pthread_attr_setguardsize(pthread_attr_t *attr, size_t guardsize);

int pthread_attr_getguardsize(const pthread_attr_t *restrict attr,
                             size_t *restrict guardsize);
```

DESCRIPTION

The pthread_attr_setguardsize() function sets the guard size attribute of the thread attributes object referred to by attr to the value specified in guardsize.

If guardsize is greater than 0, then for each new thread created using attr the system allocates an additional region of at least guardsize bytes at the end of the thread's stack to act as the guard area for the stack (but see BUGS).

If guardsize is 0, then new threads created with attr will not have a guard area.

The default guard size is the same as the system page size.

If the stack address attribute has been set in attr (using pthread_attr_setstack(3) or pthread_attr_setstackaddr(3)), meaning that the caller is allocating the thread's stack, then the guard size attribute is ignored (i.e., no guard area is created by the system): it is the application's responsibility to handle stack overflow (perhaps by using mprotect(2))

The `pthread_attr_getguardsize()` function returns the guard size attribute of the thread at? tributes object referred to by `attr` in the buffer pointed to by `guardsize`.

size allocation, rather than allocating extra space at the end of the stack, as POSIX.1 requires. (This can result in an EINVAL error from pthread_create(3) if the guard size value is too large, leaving no space for the actual stack.)

The obsolete LinuxThreads implementation did the right thing, allocating extra space at the end of the stack for the guard area.

EXAMPLES

See pthread_getattr_np(3).

SEE ALSO

mmap(2), mprotect(2), pthread_attr_init(3), pthread_attr_setstack(3), pthread_attr_setstacksize(3), pthread_create(3), pthreads(7)

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