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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'pthread_attr_getdetachstate.3p' command

\$ man pthread_attr_getdetachstate.3p

PTHREAD_ATTR_GETDETACHSTATEPOSIX Programmer's MPTHREAD_ATTR_GETDETACHSTATE(3P)

PROLOG

This manual page is part of the POSIX Programmer's Manual. The Linux implementation of this interface may differ (consult the corresponding Linux manual page for details of Linux behavior), or the interface may not be implemented on Linux.

NAME

pthread_attr_getdetachstate, pthread_attr_setdetachstate ? get and set the detachstate attribute

SYNOPSIS

```
#include <pthread.h>

int pthread_attr_getdetachstate(const pthread_attr_t *attr,
    int *detachstate);

int pthread_attr_setdetachstate(pthread_attr_t *attr, int detachstate);
```

DESCRIPTION

The `detachstate` attribute controls whether the thread is created in a detached state. If the thread is created detached, then use of the ID of the newly created thread by the `pthread_detach()` or `pthread_join()` function is an error.

The `pthread_attr_getdetachstate()` and `pthread_attr_setdetachstate()` functions, respectively, shall get and set the `detachstate` attribute in the `attr` object.

For `pthread_attr_getdetachstate()`, `detachstate` shall be set to either

PTHREAD_CREATE_DETACHED or PTHREAD_CREATE_JOINABLE.

For `pthread_attr_setdetachstate()`, the application shall set detach?

state to either PTHREAD_CREATE_DETACHED or PTHREAD_CREATE_JOINABLE.

A value of PTHREAD_CREATE_DETACHED shall cause all threads created with

`attr` to be in the detached state, whereas using a value of PTHREAD_CRE?

ATE_JOINABLE shall cause all threads created with `attr` to be in the

joinable state. The default value of the `detachstate` attribute shall be

PTHREAD_CREATE_JOINABLE.

The behavior is undefined if the value specified by the `attr` argument

to `pthread_attr_getdetachstate()` or `pthread_attr_setdetachstate()` does

not refer to an initialized thread attributes object.

RETURN VALUE

Upon successful completion, `pthread_attr_getdetachstate()` and

`pthread_attr_setdetachstate()` shall return a value of 0; otherwise, an

error number shall be returned to indicate the error.

The `pthread_attr_getdetachstate()` function stores the value of the de?

`tachstate` attribute in `detachstate` if successful.

ERRORS

The `pthread_attr_setdetachstate()` function shall fail if:

EINVAL The value of `detachstate` was not valid

These functions shall not return an error code of [EINTR].

The following sections are informative.

EXAMPLES

Retrieving the detachstate Attribute

This example shows how to obtain the `detachstate` attribute of a thread

attribute object.

```
#include <pthread.h>

pthread_attr_t thread_attr;

int    detachstate;

int    rc;

/* code initializing thread_attr */

...

rc = pthread_attr_getdetachstate (&thread_attr, &detachstate);
```

```

if (rc!=0) {
    /* handle error */
    ...
}
else {
    /* legal values for detachstate are:
    * PTHREAD_CREATE_DETACHED or PTHREAD_CREATE_JOINABLE
    */
    ...
}

```

APPLICATION USAGE

None.

RATIONALE

If an implementation detects that the value specified by the attr argument to pthread_attr_getdetachstate() or pthread_attr_setdetachstate() does not refer to an initialized thread attributes object, it is recommended that the function should fail and report an [EINVAL] error.

FUTURE DIRECTIONS

None.

SEE ALSO

pthread_attr_destroy(), pthread_attr_getstacksize(), pthread_create()
The Base Definitions volume of POSIX.1-2017, <pthread.h>

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