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

$ man pthread_attr_getscope.3p

PTHREAD_ATTR_GETSCOPE(3P) POSIX Programmer's Manual PTHREAD_ATTR_GETSCOPE(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_getscope, pthread_attr_setscope ? get and set the con? tentionscope attribute (REALTIME THREADS)

SYNOPSIS

```
#include <pthread.h>
int pthread_attr_getscope(const pthread_attr_t *restrict attr,
    int *restrict contentionscope);
int pthread_attr_setscope(pthread_attr_t *attr, int contentionscope);
```

DESCRIPTION

The pthread_attr_getscope() and pthread_attr_setscope() functions, re? spectively, shall get and set the contentionscope attribute in the attr object.

The contentionscope attribute may have the values PTHREAD_SCOPE_SYSTEM, signifying system scheduling contention scope, or PTHREAD_SCOPE_PROCESS, signifying process scheduling contention scope.

The symbols PTHREAD_SCOPE_SYSTEM and PTHREAD_SCOPE_PROCESS are defined in the <pthread.h> header.

The behavior is undefined if the value specified by the attr argument to pthread_attr_getscope() or pthread_attr_setscope() does not refer to an initialized thread attributes object.

RETURN VALUE

If successful, the pthread_attr_getscope() and pthread_attr_setscope() functions shall return zero; otherwise, an error number shall be re? turned to indicate the error.

ERRORS

The pthread_attr_setscope() function shall fail if:

ENOTSUP

An attempt was made to set the attribute to an unsupported value.

The pthread_attr_setscope() function may fail if:

EINVAL The value of contentionscope is not valid.

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

The following sections are informative.

EXAMPLES

None.

APPLICATION USAGE

After these attributes have been set, a thread can be created with the specified attributes using pthread_create(). Using these routines does not affect the current running thread.

See Section 2.9.4, Thread Scheduling for further details on thread scheduling attributes and their default settings.

RATIONALE

If an implementation detects that the value specified by the attr argu? ment to pthread_attr_getscope() or pthread_attr_setscope() does not re? fer 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_getinheritsched(),

pthread_attr_getschedpolicy(), pthread_attr_getschedparam(),

pthread_create()

The Base Definitions volume of POSIX.1?2017, <pthread.h>, <sched.h>

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