



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

`$ man pthread_attr_getschedpolicy.3p`

PTHREAD_ATTR_GETSCHEDPOLICYPOSIX Programmer's MPTHREAD_ATTR_GETSCHEDPOLICY(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_getschedpolicy, pthread_attr_setschedpolicy ? get and set the schedpolicy attribute (REALTIME THREADS)

SYNOPSIS

```
#include <pthread.h>

int pthread_attr_getschedpolicy(const pthread_attr_t *restrict attr,
    int *restrict policy);

int pthread_attr_setschedpolicy(pthread_attr_t *attr, int policy);
```

DESCRIPTION

The pthread_attr_getschedpolicy() and pthread_attr_setschedpolicy() functions, respectively, shall get and set the schedpolicy attribute in the attr argument.

The supported values of policy shall include SCHED_FIFO, SCHED_RR, and SCHED_OTHER, which are defined in the <sched.h> header. When threads executing with the scheduling policy SCHED_FIFO, SCHED_RR, or SCHED_SPORADIC are waiting on a mutex, they shall acquire the mutex in priority order when the mutex is unlocked.

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

RETURN VALUE

If successful, the `pthread_attr_getschedpolicy()` and `pthread_attr_setschedpolicy()` functions shall return zero; otherwise, an error number shall be returned to indicate the error.

ERRORS

The `pthread_attr_setschedpolicy()` function shall fail if:

ENOTSUP

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

The `pthread_attr_setschedpolicy()` function may fail if:

EINVAL The value of policy 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` argument to `pthread_attr_getschedpolicy()` or `pthread_attr_setschedpolicy()` 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_getscope()`, `pthread_attr_getinher?`

itsched(), pthread_attr_getschedparam(), pthread_create()

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

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