



Full credit is given to the above companies including the OS that this PDF file was generated!

Rocky Enterprise Linux 9.2 Manual Pages on command 'pthread_setattr_default_np.3'

\$ man pthread_setattr_default_np.3

PTHREAD_GETATTR_DEFAULT_NP(Linux Programmer's ManPTHREAD_GETATTR_DEFAULT_NP(3)

NAME

pthread_getattr_default_np, pthread_setattr_default_np, - get or set
default thread-creation attributes

SYNOPSIS

```
#define _GNU_SOURCE      /* See feature_test_macros(7) */  
#include <pthread.h>  
  
int pthread_getattr_default_np(pthread_attr_t *attr);  
int pthread_setattr_default_np(pthread_attr_t *attr);  
  
Compile and link with -pthread.
```

DESCRIPTION

The pthread_setattr_default_np() function sets the default attributes used for creation of a new thread?that is, the attributes that are used when pthread_create(3) is called with a second argument that is NULL.

The default attributes are set using the attributes supplied in *attr, a previously initialized thread attributes object. Note the following details about the supplied attributes object:

* The attribute settings in the object must be valid.

- * The stack address attribute must not be set in the object.
- * Setting the stack size attribute to zero means leave the default stack size unchanged.

The `pthread_getattr_default_np()` function initializes the thread attributes object referred to by `attr` so that it contains the default attributes used for thread creation.

ERRORS

EINVAL (`pthread_setattr_default_np()`) One of the attribute settings in `attr` is invalid, or the stack address attribute is set in `attr`.

ENOMEM (`pthread_setattr_default_np()`) Insufficient memory.

VERSIONS

These functions are available in glibc since version 2.18.

ATTRIBUTES

For an explanation of the terms used in this section, see `attributes(7)`.

??

?Interface ? Attribute ? Value ?

??

?`pthread_getattr_default_np()`, ? Thread safety ? MT-Safe ?

?`pthread_setattr_default_np()` ? ? ?

??

CONFORMING TO

These functions are nonstandard GNU extensions; hence the suffix "`_np`" (nonportable) in their names.

EXAMPLES

The program below uses `pthread_getattr_default_np()` to fetch the default thread-creation attributes and then displays various settings from the returned thread attributes object. When running the program, we see the following output:

```
$ ./a.out
Stack size:      8388608
Guard size:     4096
Scheduling policy: SCHED_OTHER
```

Scheduling priority: 0

Detach state: JOINABLE

Inherit scheduler: INHERIT

Program source

```
#define _GNU_SOURCE

#include <pthread.h>
#include <stdio.h>
#include <stdlib.h>
#include <errno.h>

#define errExitEN(en, msg) \
    do { errno = en; perror(msg); \
        exit(EXIT_FAILURE); } while (0)

static void
display_pthread_attr(pthread_attr_t *attr)
{
    int s;
    size_t stacksize;
    size_t guardsize;
    int policy;
    struct sched_param schedparam;
    int detachstate;
    int inheritsched;

    s = pthread_attr_getstacksize(attr, &stacksize);
    if (s != 0)
        errExitEN(s, "pthread_attr_getstacksize");
    printf("Stack size:      %zd\n", stacksize);
    s = pthread_attr_getguardsize(attr, &guardsize);
    if (s != 0)
        errExitEN(s, "pthread_attr_getguardsize");
    printf("Guard size:       %zd\n", guardsize);
    s = pthread_attr_getschedpolicy(attr, &policy);
    if (s != 0)
        errExitEN(s, "pthread_attr_getschedpolicy");
```

```

printf("Scheduling policy:  %s\n",
      (policy == SCHED_FIFO) ? "SCHED_FIFO" :
      (policy == SCHED_RR) ? "SCHED_RR" :
      (policy == SCHED_OTHER) ? "SCHED_OTHER" : "[unknown]");
s = pthread_attr_getschedparam(attr, &schedparam);
if (s != 0)
    errExitEN(s, "pthread_attr_getschedparam");
printf("Scheduling priority: %d\n", schedparam.sched_priority);
s = pthread_attr_getdetachstate(attr, &detachstate);
if (s != 0)
    errExitEN(s, "pthread_attr_getdetachstate");
printf("Detach state:      %s\n",
      (detachstate == PTHREAD_CREATE_DETACHED) ? "DETACHED" :
      (detachstate == PTHREAD_CREATE_JOINABLE) ? "JOINABLE" :
      "???");
s = pthread_attr_getinheritsched(attr, &inheritsched);
if (s != 0)
    errExitEN(s, "pthread_attr_getinheritsched");
printf("Inherit scheduler:  %s\n",
      (inheritsched == PTHREAD_INHERIT_SCHED) ? "INHERIT" :
      (inheritsched == PTHREAD_EXPLICIT_SCHED) ? "EXPLICIT" :
      "???");
}
int
main(int argc, char *argv[])
{
    int s;
    pthread_attr_t attr;
    s = pthread_getattr_default_np(&attr);
    if (s != 0)
        errExitEN(s, "pthread_getattr_default_np");
    display_thread_attr(&attr);
    exit(EXIT_SUCCESS);
}

```

```
}
```

SEE ALSO

`pthread_attr_getaffinity_np(3)`, `pthread_attr_getdetachstate(3)`,
`pthread_attr_getguardsize(3)`, `pthread_attr_getinheritsched(3)`,
`pthread_attr_getschedparam(3)`, `pthread_attr_getschedpolicy(3)`,
`pthread_attr_getscope(3)`, `pthread_attr_getstack(3)`,
`pthread_attr_getstackaddr(3)`, `pthread_attr_getstacksize(3)`,
`pthread_attr_init(3)`, `pthread_create(3)`, `pthreads(7)`

COLOPHON

This page is part of release 5.10 of the Linux man-pages project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at <https://www.kernel.org/doc/man-pages/>.

Linux 2020-06-09 PTHREAD_GETATTR_DEFAULT_NP(3)