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

$ man pthread_exit.3

PTHREAD_EXIT(3) Linux Programmer's Manual PTHREAD_EXIT(3)

NAME

pthread_exit - terminate calling thread

SYNOPSIS

#include <pthread.h>

void pthread_exit(void *retval);

Compile and link with -pthread.

DESCRIPTION

The pthread_exit() function terminates the calling thread and returns a value via retval that (if the thread is joinable) is available to an? other thread in the same process that calls pthread_join(3).

Any clean-up handlers established by pthread_cleanup_push(3) that have not yet been popped, are popped (in the reverse of the order in which they were pushed) and executed. If the thread has any thread-specific data, then, after the clean-up handlers have been executed, the corre? sponding destructor functions are called, in an unspecified order.

When a thread terminates, process-shared resources (e.g., mutexes, con? dition variables, semaphores, and file descriptors) are not released,

and functions registered using atexit(3) are not called.

After the last thread in a process terminates, the process terminates as by calling exit(3) with an exit status of zero; thus, process-shared resources are released and functions registered using atexit(3) are called.

RETURN VALUE

This function does not return to the caller.

ERRORS

This function always succeeds.

ATTRIBUTES

For an explanation of the terms used in this section, see at? tributes(7).

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?Interface ? Attribute ? Value ?

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?pthread_exit() ? Thread safety ? MT-Safe ?

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CONFORMING TO

POSIX.1-2001, POSIX.1-2008.

NOTES

Performing a return from the start function of any thread other than the main thread results in an implicit call to pthread_exit(), using the function's return value as the thread's exit status.

To allow other threads to continue execution, the main thread should terminate by calling pthread_exit() rather than exit(3).

The value pointed to by retval should not be located on the calling thread's stack, since the contents of that stack are undefined after the thread terminates.

BUGS

Currently, there are limitations in the kernel implementation logic for wait(2)ing on a stopped thread group with a dead thread group leader. This can manifest in problems such as a locked terminal if a stop sig? nal is sent to a foreground process whose thread group leader has al?

ready called pthread_exit().

SEE ALSO

pthread_create(3), pthread_join(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/.