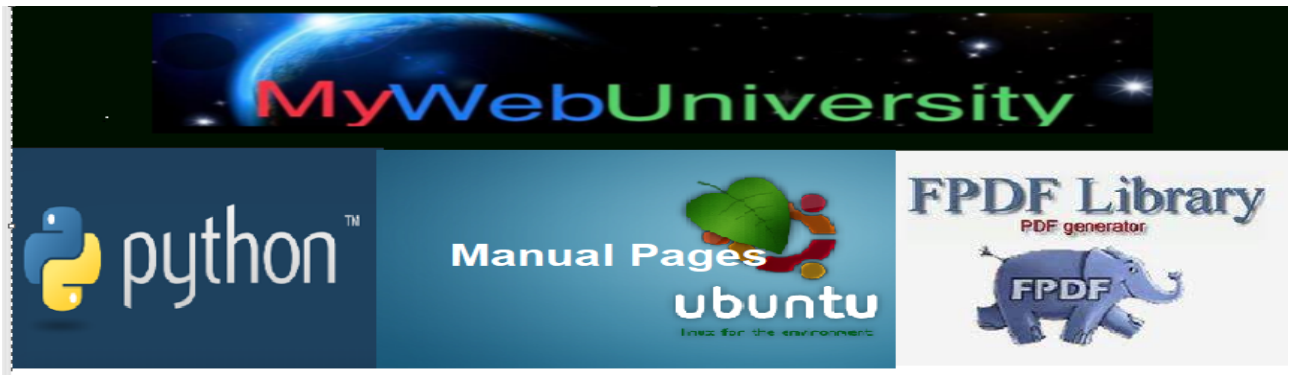

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Linux Ubuntu 26.04 Manual Pages on command 'posix_memalign.3'

$ man posix_memalign.3

posix_memalign(3) Library Functions Manual posix_memalign(3)

NAME

posix_memalign - allocate aligned memory

LIBRARY

Standard C library (libc, -lc)

SYNOPSIS

#include <stdlib.h>

int posix_memalign(void **memptr, size_t alignment, size_t size);

Feature Test Macro Requirements for glibc (see feature_test_macros(7)):

posix_memalign():

_POSIX_C_SOURCE >= 200112L

DESCRIPTION

posix_memalign() allocates size bytes and places the address of the allocated memory in *memptr. The address of the allocated memory will be a multiple of alignment, which must be a power of two and a multiple of sizeof(void *). This address can later be successfully passed to free(3). If size is 0, then the value placed in *memptr is either NULL or a unique pointer value.

The memory is not zeroed.

aligned_alloc(3) is a standard function that provides the same functionality, and has a more ergonomic prototype. Use that instead.

RETURN VALUE

posix_memalign() returns zero on success, or one of the error values listed in the next sec? tion on failure. The value of errno is not set.

ERRORS

EINVAL The alignment argument was not a power of two, or was not a multiple of sizeof(void *).

ENOMEM Out of memory.

ATTRIBUTES

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

Interface	Attribute	Value
posix_memalign()	Thread safety	MT-Safe

STANDARDS

POSIX.1-2024.

HISTORY

glibc 2.1.91. POSIX.1d, POSIX.1-2001.

CAVEATS

On Linux (and other systems), posix_memalign() does not modify memptr on failure. A requirement standardizing this behavior was added in POSIX.1-2008 TC2.

SEE ALSO

aligned_alloc(3)