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

$ man posix_mem_offset.3p

POSIX_MEM_OFFSET(3P) POSIX Programmer's Manual POSIX_MEM_OFFSET(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

posix_mem_offset ? find offset and length of a mapped typed memory block (ADVANCED REALTIME)

SYNOPSIS

```
#include <sys/mman.h>
int posix_mem_offset(const void *restrict addr, size_t len,
    off_t *restrict off, size_t *restrict contig_len,
    int *restrict fildes);
```

DESCRIPTION

The posix_mem_offset() function shall return in the variable pointed to by off a value that identifies the offset (or location), within a mem? ory object, of the memory block currently mapped at addr. The function shall return in the variable pointed to by fildes, the descriptor used (via mmap()) to establish the mapping which contains addr. If that de? scriptor was closed since the mapping was established, the returned value of fildes shall be -1. The len argument specifies the length of the block of the memory object the user wishes the offset for; upon re?

turn, the value pointed to by contig_len shall equal either len, or the length of the largest contiguous block of the memory object that is currently mapped to the calling process starting at addr, whichever is smaller.

If the memory object mapped at addr is a typed memory object, then if the off and contig_len values obtained by calling posix_mem_offset() are used in a call to mmap() with a file descriptor that refers to the same memory pool as fildes (either through the same port or through a different port), and that was opened with neither the POSIX_TYPED_MEM_ALLOCATE nor the POSIX_TYPED_MEM_ALLOCATE_CONTIG flag, the typed memory area that is mapped shall be exactly the same area that was mapped at addr in the address space of the process that called posix_mem_offset().

If the memory object specified by fildes is not a typed memory object, then the behavior of this function is implementation-defined.

RETURN VALUE

Upon successful completion, the posix_mem_offset() function shall re? turn zero; otherwise, the corresponding error status value shall be re? turned.

ERRORS

The posix_mem_offset() function shall fail if:

EACCES The process has not mapped a memory object supported by this function at the given address addr.

This function shall not return an error code of [EINTR].

The following sections are informative.

EXAMPLES

None.

APPLICATION USAGE

None.

RATIONALE

None.

FUTURE DIRECTIONS

None.

SEE ALSO

mmap(), posix_typed_mem_open()

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