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## **Red Hat Enterprise Linux Release 9.2 Manual Pages on 'posix\_madvise.3p' command**

### **\$ man posix\_madvise.3p**

POSIX\_MADVISE(3P)      POSIX Programmer's Manual      POSIX\_MADVISE(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\_madvise ? memory advisory information and alignment control (ADVANCED REALTIME)

#### SYNOPSIS

```
#include <sys/mman.h>

int posix_madvise(void *addr, size_t len, int advice);
```

#### DESCRIPTION

The posix\_madvise() function shall advise the implementation on the expected behavior of the application with respect to the data in the memory starting at address addr, and continuing for len bytes. The implementation may use this information to optimize handling of the specified data. The posix\_madvise() function shall have no effect on the semantics of access to memory in the specified range, although it may affect the performance of access.

The implementation may require that addr be a multiple of the page size, which is the value returned by sysconf() when the name value \_SC\_PAGESIZE is used.

The advice to be applied to the memory range is specified by the advice parameter and may be one of the following values:

#### POSIX\_MADV\_NORMAL

Specifies that the application has no advice to give on its behavior with respect to the specified range. It is the default characteristic if no advice is given for a range of memory.

#### POSIX\_MADV\_SEQUENTIAL

Specifies that the application expects to access the specified range sequentially from lower addresses to higher addresses.

#### POSIX\_MADV\_RANDOM

Specifies that the application expects to access the specified range in a random order.

#### POSIX\_MADV\_WILLNEED

Specifies that the application expects to access the specified range in the near future.

#### POSIX\_MADV\_DONTNEED

Specifies that the application expects that it will not access the specified range in the near future.

These values are defined in the <sys/mman.h> header.

#### RETURN VALUE

Upon successful completion, `posix_madvise()` shall return zero; otherwise, an error number shall be returned to indicate the error.

#### ERRORS

The `posix_madvise()` function shall fail if:

**EINVAL** The value of `advice` is invalid.

**ENOMEM** Addresses in the range starting at `addr` and continuing for `len` bytes are partly or completely outside the range allowed for the address space of the calling process.

The `posix_madvise()` function may fail if:

**EINVAL** The value of `addr` is not a multiple of the value returned by `sysconf()` when the name value `_SC_PAGESIZE` is used.

**EINVAL** The value of `len` is zero.

The following sections are informative.

## EXAMPLES

None.

## APPLICATION USAGE

The `posix_madvise()` function is part of the Advisory Information option and need not be provided on all implementations.

## RATIONALE

None.

## FUTURE DIRECTIONS

None.

## SEE ALSO

`mmap()`, `posix_fadvise()`, `sysconf()`

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

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