

NAME

mmap2 – map files or devices into memory

SYNOPSIS

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

```
void *mmap2(void *addr, size_t length, int prot,  
            int flags, int fd, off_t pgoffset);
```

DESCRIPTION

This is probably not the system call that you are interested in; instead, see **mmap(2)**, which describes the glibc wrapper function that invokes this system call.

The **mmap2()** system call provides the same interface as **mmap(2)**, except that the final argument specifies the offset into the file in 4096-byte units (instead of bytes, as is done by **mmap(2)**). This enables applications that use a 32-bit *off_t* to map large files (up to 2^{44} bytes).

RETURN VALUE

On success, **mmap2()** returns a pointer to the mapped area. On error, -1 is returned and *errno* is set appropriately.

ERRORS**EFAULT**

Problem with getting the data from user space.

EINVAL

(Various platforms where the page size is not 4096 bytes.) *offset * 4096* is not a multiple of the system page size.

mmap2() can also return any of the errors described in **mmap(2)**.

VERSIONS

mmap2() is available since Linux 2.3.31.

CONFORMING TO

This system call is Linux-specific.

NOTES

On architectures where this system call is present, the glibc **mmap()** wrapper function invokes this system call rather than the **mmap(2)** system call.

This system call does not exist on x86-64.

On ia64, the unit for *offset* is actually the system page size, rather than 4096 bytes.

SEE ALSO

getpagesize(2), **mmap(2)**, **mremap(2)**, **msync(2)**, **shm_open(3)**

COLOPHON

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