

**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**

The **mmap2()** system call operates in exactly the same way 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 userspace.

**EINVAL**

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

**mmap2()** can return any of the same errors as **mmap(2)**.

**VERSIONS**

**mmap2()** is available since Linux 2.3.31.

**CONFORMING TO**

This system call is Linux-specific.

**NOTES**

Nowadays, the glibc **mmap()** wrapper function invokes this system call rather than the **mmap(2)** system call.

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**

This page is part of release 3.22 of the Linux *man-pages* project. A description of the project, and information about reporting bugs, can be found at <http://www.kernel.org/doc/man-pages/>.