

**NAME**

**bread**, **bwrite** - read and write blocks of a UFS file system

**LIBRARY**

UFS File System Access Library (libufs, -lufs)

**SYNOPSIS**

```
#include <sys/param.h>
#include <sys/mount.h>
#include <ufs/ufs/ufsmount.h>
#include <ufs/ufs/dinode.h>
#include <ufs/ufs/fs.h>
#include <libufs.h>
```

*ssize\_t*

```
bread(struct uufsd *disk, ufs2_daddr_t blockno, void *data, size_t size);
```

*ssize\_t*

```
bwrite(struct uufsd *disk, ufs2_daddr_t blockno, const void *data, size_t size);
```

*int*

```
berase(struct uufsd *disk, ufs2_daddr_t blockno, ufs2_daddr_t size);
```

**DESCRIPTION**

The **bread**(), **bwrite**() and **berase**() functions provide a block read, write and erase API for libufs(3) consumers. They operate on a userland UFS disk structure, and perform the read and write at a given block address, which uses the current *d\_bsize* value of the structure.

**RETURN VALUES**

The **bread**() and **bwrite**() functions return the amount read or written, or -1 in case of any error, including short read.

The **berase**() function returns non-zero on error.

**ERRORS**

The function **bread**() may fail and set *errno* for any of the errors specified for the library functions `ufs_disk_write(3)` or `pread(2)`.

The function **bwrite**() may fail and set *errno* for any of the errors specified for the library function `pwrite(2)`.

The function **berase()** may fail and set *errno* for any of the errors specified for the library function `ioctl(2)`.

Additionally all three functions may follow the `libufs(3)` error methodologies in situations where the amount of data written is not equal to the amount requested, or in case of a device error.

**SEE ALSO**

`libufs(3)`, `ufs_disk_write(3)`

**HISTORY**

These functions first appeared as part of `libufs(3)` in FreeBSD 5.0.

**AUTHORS**

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