

**NAME**

**g\_read\_data**, **g\_write\_data** - read/write data from/to GEOM consumer

**SYNOPSIS**

```
#include <geom/geom.h>
```

*void \**

```
g_read_data(struct g_consumer *cp, off_t offset, off_t length, int *error);
```

*int*

```
g_write_data(struct g_consumer *cp, off_t offset, void *ptr, off_t length);
```

**DESCRIPTION**

The **g\_read\_data()** function reads *length* bytes of data from the provider attached to consumer *cp*, starting at offset *offset*. The buffer returned from **g\_read\_data()** is allocated with **g\_malloc()**, so it should be freed by the caller with **g\_free()** after use. If the operation fails, an error value will be stored in the *error* argument if it is not NULL.

The **g\_write\_data()** function writes *length* bytes of data from the buffer pointed to by *ptr* to the provider attached to consumer *cp*, starting at offset *offset*.

**RESTRICTIONS/CONDITIONS**

The *length* argument should be a multiple of the provider's sectorsize and less than or equal to DFLTPHYS (DFLTPHYS is defined in *<sys/param.h>*).

The topology lock must not be held.

**RETURN VALUES**

The **g\_read\_data()** function returns a pointer to a data buffer or NULL if an error occurred. In that case an error value is stored in the *error* argument unless it is NULL.

The **g\_write\_data()** function returns 0 if successful; otherwise an error code is returned.

**ERRORS**

Possible errors:

[EIO] An I/O error occurred while reading from or writing to the consumer.

[EINTEGRITY] Corrupted data was detected while reading from the consumer.

**SEE ALSO**

geom(4), DECLARE\_GEOM\_CLASS(9), g\_access(9), g\_attach(9), g\_bio(9), g\_consumer(9), g\_event(9), g\_geom(9), g\_provider(9), g\_provider\_by\_name(9), g\_wither\_geom(9)

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