

NAME

g_new_consumer, **g_destroy_consumer** - GEOM consumers management

SYNOPSIS

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

```
struct g_consumer *
```

```
g_new_consumer(struct g_geom *gp);
```

```
void
```

```
g_destroy_consumer(struct g_consumer *cp);
```

DESCRIPTION

A GEOM consumer is the backdoor through which a geom connects to another GEOM provider and through which I/O requests are sent.

The **g_new_consumer**() function creates a new consumer on geom *gp*. Before using the new consumer, it has to be attached to a provider with **g_attach**(9) and opened with **g_access**(9).

The **g_destroy_consumer**() function destroys the given consumer and cancels all related pending events. This function is the last stage of killing an unwanted consumer.

RESTRICTIONS/CONDITIONS

g_new_consumer():

The geom *gp* has to have an *orphan* method defined.

The topology lock has to be held.

g_destroy_consumer():

The consumer must not be attached to a provider.

The access count has to be 0.

The topology lock has to be held.

RETURN VALUES

The **g_new_consumer**() function returns a pointer to the newly created consumer.

EXAMPLES

Create consumer, attach it to given provider, gain read access and clean up.

```
void
some_function(struct g_geom *mygeom, struct g_provider *pp)
{
    struct g_consumer *cp;

    g_topology_assert();

    /* Create new consumer on 'mygeom' geom. */
    cp = g_new_consumer(mygeom);
    /* Attach newly created consumer to given provider. */
    if (g_attach(cp, pp) != 0) {
        g_destroy_consumer(cp);
        return;
    }
    /* Open provider for reading through our consumer. */
    if (g_access(cp, 1, 0, 0) != 0) {
        g_detach(cp);
        g_destroy_consumer(cp);
        return;
    }

    g_topology_unlock();
    /*
     * Read data from provider.
     */
    g_topology_lock();

    /* Disconnect from provider (release access count). */
    g_access(cp, -1, 0, 0);
    /* Detach from provider. */
    g_detach(cp);
    /* Destroy consumer. */
    g_destroy_consumer(cp);
}
```

SEE ALSO

geom(4), DECLARE_GEOM_CLASS(9), g_access(9), g_attach(9), g_bio(9), g_data(9), g_event(9),

[g_geom\(9\)](#), [g_provider\(9\)](#), [g_provider_by_name\(9\)](#), [g_wither_geom\(9\)](#)

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