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)

AUTHORS

This manual page was written by Pawel Jakub Dawidek <*pjd@FreeBSD.org*>.