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

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