NAME

XGL_GCACHE – a Geometry Cache (Gcache) object

OVERVIEW

XGL_GCACHE is the *type* parameter value for a Geometry Cache object.

A Geometry Cache (Gcache) is an XGL object that stores a simplified version of an application primitive. In addition, the Gcache stores the values of the attributes on which the simplification is based. Further, for 3D primitives, if facet normals are not provided with the primitive, they will be calculated and stored in the Gcache facet list structure. For a complete description of XGL_GCACHE and its use, see the *XGL Programmer's Guide*.

When the Gcache is displayed, the application can validate the Gcache using the current values of the Context attributes. If the simplification is still valid (the attribute values are still the same), the simplified form of the primitive is rendered.

Geometry Cache (Gcache) uses the following attributes:

XGL_GCACHE_BYPASS_MODEL_CLIP(3)
Controls whether model clipping is used when a Gcache is displayed with the *test* parameter to xgl_context_display_gcache indicated as FALSE.

XGL_GCACHE_DISPLAY_PRIM_TYPE(3)
Returns the type of primitive used when the Gcache is displayed.

XGL_GCACHE_DO_POLYGON_DECOMP(3)
Controls whether polygon decomposition is performed when **xgl_gcache_-polygon**(3) is called.

XGL_GCACHE_FACET_LIST_LIST(3)
Returns the list of facet lists used when the Gcache is displayed.

XGL_GCACHE_IS_EMPTY(3)
Controls whether the Gcache is empty. When set to TRUE, the attribute causes the Gcache to be emptied.

XGL_GCACHE_NURBS_CURVE_MODE(3)
Defines the mode of Gcache for NURBS curves.

XGL_GCACHE_NURBS_SURF_MODE(3)
Defines the mode of Gcache for NURBS surfaces.

XGL_GCACHE_ORIG_PRIM_TYPE(3)
Returns the type of the original primitive stored in the Gcache.

XGL_GCACHE_POLYGON_TYPE(3)
Controls which decomposition algorithm is used if polygon decomposition is performed when **xgl_gcache_polygon**(3) is called.

XGL_GCACHE_PT_LIST_LIST(3)
Returns the list of point lists used when the Gcache is displayed.

XGL_GCACHE_SHOW_DECOMP_EDGES(3)
Controls whether decomposition edges are shown when **xgl_gcache_polygon**(3) or **xgl_gcache_multi_simple_polygon**(3) is displayed.

XGL_GCACHE_USE_APPL_GEOM(3)

Controls whether the Gcache references the application's geometry (the parameters to the Gcache operators, such as the list of points, bounding box, and facet information).

XGL_OBJ_APPLICATION_DATA(3)
This attribute allows the application program to store its own data with an object.

XGL_OBJ_SYS_STATE(3)
This read-only attribute returns the System State that was used to create the object.

XGL_OBJ_TYPE(3)
This read-only attribute defines the type of an XGL object.