NAME

XGL_2D_CTX
XGL_3D_CTX – a 2D or 3D Context object

OVERVIEW

XGL_2D_CTX and XGL_3D_CTX are the XGL *Context* objects for 2D and 3D. The *type* of the 2D Context is XGL_2D_CTX. The *type* of the 3D Context is XGL_3D_CTX.

The XGL *Context* is an abstraction of a *graphics renderer* that draws onto an XGL Device object (which is an abstraction of a graphics device). Most of the operators of the Context class are the *primitives* that are rendered, such as lines, polygons, and text; the other operators control the Device. The attributes of the Context control the visual appearance of the primitives that are drawn.

At creation time, a Context is not associated with any Device. The application must explicitly do this by setting the **XGL_CTX_DEVICE**(3) attribute in the Context.

After creating the Context, using **xgl_object_create**(3)**,** the application can inquire about the values of its attributes by using the **xgl_object_get**(3) operator.

When a Context is no longer needed in an application, it can be explicitly destroyed by calling the **xgl_object_destroy**(3) operator to free the resources associated with it.

A System State object must have been created with the **xgl_open**(3) operator before any Context can be created.

Note that depending on the attribute used and the hardware, XGL may not render with pixel perfection. Different pixels may be touched when different attributes are set.

Context uses the following attributes:

XGL_3D_CTX_ACCUM_OP_DEST(3)
XGL_3D_CTX_BLEND_DRAW_MODE(3)
XGL_3D_CTX_BLEND_FREEZE_Z_BUFFER(3)

XGL_3D_CTX_DEPTH_CUE_COLOR(3)
XGL_3D_CTX_DEPTH_CUE_INTERP(3)
XGL_3D_CTX_DEPTH_CUE_MODE(3)
XGL_3D_CTX_DEPTH_CUE_REF_PLANES(3)
XGL_3D_CTX_DEPTH_CUE_SCALE_FACTORS(3)

XGL_3D_CTX_HLHSR_DATA(3)
XGL_3D_CTX_HLHSR_MODE(3)

XGL_3D_CTX_JITTER_OFFSET(3)

XGL_3D_CTX_LIGHTS(3)
XGL_3D_CTX_LIGHT_NUM(3)
XGL_3D_CTX_LIGHT_SWITCHES(3)

XGL_3D_CTX_LINE_COLOR_INTERP(3)

XGL_3D_CTX_MODEL_CLIP_PLANE_NUM(3)
XGL_3D_CTX_MODEL_CLIP_PLANES(3)

XGL_3D_CTX_NORMAL_TRANS(3)

XGL_3D_CTX_SURF_BACK_AMBIENT(3)
XGL_3D_CTX_SURF_BACK_COLOR(3)
XGL_3D_CTX_SURF_BACK_COLOR_SELECTOR(3)
XGL_3D_CTX_SURF_BACK_DIFFUSE(3)
XGL_3D_CTX_SURF_BACK_DMAP(3)
XGL_3D_CTX_SURF_BACK_DMAP_NUM(3)
XGL_3D_CTX_SURF_BACK_DMAP_SWITCHES(3)
XGL_3D_CTX_SURF_BACK_FILL_STYLE(3)
XGL_3D_CTX_SURF_BACK_FPAT(3)
XGL_3D_CTX_SURF_BACK_FPAT_POSITION(3)
XGL_3D_CTX_SURF_BACK_ILLUMINATION(3)
XGL_3D_CTX_SURF_BACK_LIGHT_COMPONENT(3)
XGL_3D_CTX_SURF_BACK_SPECULAR(3)
XGL_3D_CTX_SURF_BACK_SPECULAR_COLOR(3)
XGL_3D_CTX_SURF_BACK_SPECULAR_POWER(3)
XGL_3D_CTX_SURF_BACK_TMAP(3)
XGL_3D_CTX_SURF_BACK_TMAP_NUM(3)
XGL_3D_CTX_SURF_BACK_TMAP_SWITCHES(3)
XGL_3D_CTX_SURF_BACK_TRANSP(3)
XGL_3D_CTX_SURF_DC_OFFSET(3)
XGL_3D_CTX_SURF_FACE_CULL(3)
XGL_3D_CTX_SURF_FACE_DISTINGUISH(3)
XGL_3D_CTX_SURF_FRONT_AMBIENT(3)
XGL_3D_CTX_SURF_FRONT_DIFFUSE(3)
XGL_3D_CTX_SURF_FRONT_DMAP(3)
XGL_3D_CTX_SURF_FRONT_DMAP_NUM(3)
XGL_3D_CTX_SURF_FRONT_DMAP_SWITCHES(3)
XGL_3D_CTX_SURF_FRONT_ILLUMINATION(3)
XGL_3D_CTX_SURF_FRONT_LIGHT_COMPONENT(3)
XGL_3D_CTX_SURF_FRONT_SPECULAR(3)
XGL_3D_CTX_SURF_FRONT_SPECULAR_COLOR(3)
XGL_3D_CTX_SURF_FRONT_SPECULAR_POWER(3)
XGL_3D_CTX_SURF_FRONT_TMAP(3)
XGL_3D_CTX_SURF_FRONT_TMAP_NUM(3)
XGL_3D_CTX_SURF_FRONT_TMAP_SWITCHES(3)
XGL_3D_CTX_SURF_FRONT_TRANSP(3)
XGL_3D_CTX_SURF_GEOM_NORMAL(3)
XGL_3D_CTX_SURF_LIGHTING_NORMAL_FLIP(3)
XGL_3D_CTX_SURF_NORMAL_FLIP(3)
XGL_3D_CTX_SURF_SILHOUETTE_EDGE_FLAG(3)
XGL_3D_CTX_SURF_TMAP_PERSP_CORRECTION(3)
XGL_3D_CTX_SURF_TRANSP_BLEND_EQ(3)
XGL_3D_CTX_SURF_TRANSP_METHOD(3)

XGL_3D_CTX_VIEW_CLIP_PLUS_W_ONLY(3)

XGL_3D_CTX_Z_BUFFER_COMP_METHOD(3)
XGL_3D_CTX_Z_BUFFER_WRITE_MASK(3)

XGL_CTX_ARC_FILL_STYLE(3)

XGL_CTX_ATEXT_CHAR_HEIGHT(3)
XGL_CTX_ATEXT_CHAR_SLANT_ANGLE(3)
XGL_CTX_ATEXT_CHAR_UP_VECTOR(3)
XGL_CTX_ATEXT_STYLE(3)
XGL_CTX_ATEXT_ALIGN_HORIZ(3)
XGL_CTX_ATEXT_ALIGN_VERT(3)
XGL_CTX_ATEXT_PATH(3)

XGL_CTX_BACKGROUND_COLOR(3)
XGL_CTX_CLIP_PLANES(3)
XGL_CTX_DC_VIEWPORT(3)
XGL_CTX_DEFERRAL_MODE(3)
XGL_CTX_DEVICE(3)

XGL_CTX_EDGE_AA_BLEND_EQ(3)
XGL_CTX_EDGE_AA_FILTER_SHAPE(3)
XGL_CTX_EDGE_AA_FILTER_WIDTH(3)
XGL_CTX_EDGE_ALT_COLOR(3)
XGL_CTX_EDGE_CAP(3)
XGL_CTX_EDGE_COLOR(3)
XGL_CTX_EDGE_JOIN(3)
XGL_CTX_EDGE_MITER_LIMIT(3)
XGL_CTX_EDGE_PATTERN(3)
XGL_CTX_EDGE_STYLE(3)
XGL_CTX_EDGE_WIDTH_SCALE_FACTOR(3)

XGL_CTX_GEOM_DATA_IS_VOLATILE(3)
XGL_CTX_GLOBAL_MODEL_TRANS(3)

XGL_CTX_LINE_AA_BLEND_EQ(3)
XGL_CTX_LINE_AA_FILTER_SHAPE(3)
XGL_CTX_LINE_AA_FILTER_WIDTH(3)
XGL_CTX_LINE_ALT_COLOR(3)
XGL_CTX_LINE_CAP(3)
XGL_CTX_LINE_COLOR(3)
XGL_CTX_LINE_COLOR_SELECTOR(3)
XGL_CTX_LINE_JOIN(3)
XGL_CTX_LINE_MITER_LIMIT(3)
XGL_CTX_LINE_PATTERN(3)
XGL_CTX_LINE_STYLE(3)
XGL_CTX_LINE_WIDTH_SCALE_FACTOR(3)

XGL_CTX_LOCAL_MODEL_TRANS(3)

XGL_CTX_MARKER(3)
XGL_CTX_MARKER_AA_BLEND_EQ(3)
XGL_CTX_MARKER_AA_FILTER_SHAPE(3)
XGL_CTX_MARKER_AA_FILTER_WIDTH(3)
XGL_CTX_MARKER_COLOR(3)
XGL_CTX_MARKER_COLOR_SELECTOR(3)
XGL_CTX_MARKER_SCALE_FACTOR(3)

XGL_CTX_MAX_TESSELLATION(3)
XGL_CTX_MC_TO_DC_TRANS(3)
XGL_CTX_MIN_TESSELLATION(3)

XGL_CTX_MODEL_TRANS(3)
XGL_CTX_MODEL_TRANS_STACK_SIZE(3)

XGL_CTX_NEW_FRAME_ACTION(3)

XGL_CTX_NURBS_CURVE_APPROX(3)
XGL_CTX_NURBS_CURVE_APPROX_VAL(3)
XGL_CTX_NURBS_SURF_APPROX(3)
XGL_CTX_NURBS_SURF_APPROX_VAL_U(3)
XGL_CTX_NURBS_SURF_APPROX_VAL_V(3)
XGL_CTX_NURBS_SURF_ISO_CURVE_PLACEMENT(3)
XGL_CTX_NURBS_SURF_ISO_CURVE_U_NUM(3)
XGL_CTX_NURBS_SURF_ISO_CURVE_V_NUM(3)
XGL_CTX_NURBS_SURF_PARAM_STYLE(3)

XGL_CTX_PICK_APERTURE(3)
XGL_CTX_PICK_BUFFER_SIZE(3)
XGL_CTX_PICK_ENABLE(3)
XGL_CTX_PICK_ID_1(3)
XGL_CTX_PICK_ID_2(3)
XGL_CTX_PICK_STYLE(3)
XGL_CTX_PICK_SURF_STYLE(3)

XGL_CTX_PLANE_MASK(3)

XGL_CTX_RASTER_FILL_STYLE(3)
XGL_CTX_RASTER_FPAT(3)
XGL_CTX_RASTER_FPAT_POSITION(3)
XGL_CTX_RASTER_STIPPLE_COLOR(3)

XGL_CTX_RENDER_BUFFER(3)
XGL_CTX_RENDERING_ORDER(3)
XGL_CTX_ROP(3)

XGL_CTX_SFONT_0(3)
XGL_CTX_SFONT_1(3)
XGL_CTX_SFONT_2(3)
XGL_CTX_SFONT_3(3)

XGL_CTX_STEXT_AA_BLEND_EQ(3)
XGL_CTX_STEXT_AA_FILTER_SHAPE(3)
XGL_CTX_STEXT_AA_FILTER_WIDTH(3)
XGL_CTX_STEXT_ALIGN_HORIZ(3)
XGL_CTX_STEXT_ALIGN_VERT(3)
XGL_CTX_STEXT_CHAR_ENCODING(3)
XGL_CTX_STEXT_CHAR_EXPANSION_FACTOR(3)
XGL_CTX_STEXT_CHAR_HEIGHT(3)
XGL_CTX_STEXT_CHAR_SLANT_ANGLE(3)
XGL_CTX_STEXT_CHAR_SPACING(3)
XGL_CTX_STEXT_CHAR_UP_VECTOR(3)
XGL_CTX_STEXT_COLOR(3)
XGL_CTX_STEXT_PATH(3)
XGL_CTX_STEXT_PRECISION(3)

XGL_CTX_SURF_AA_BLEND_EQ(3)
XGL_CTX_SURF_AA_FILTER_SHAPE(3)
XGL_CTX_SURF_AA_FILTER_WIDTH(3)
XGL_CTX_SURF_EDGE_FLAG(3)
XGL_CTX_SURF_FRONT_COLOR(3)
XGL_CTX_SURF_FRONT_COLOR_SELECTOR(3)
XGL_CTX_SURF_FRONT_FILL_STYLE(3)
XGL_CTX_SURF_FRONT_FPAT(3)
XGL_CTX_SURF_FRONT_FPAT_POSITION(3)
XGL_CTX_SURF_INTERIOR_RULE(3)

XGL_CTX_THRESHOLD(3)

XGL_CTX_VDC_MAP(3)
XGL_CTX_VDC_ORIENTATION(3)
XGL_CTX_VDC_WINDOW(3)

XGL_CTX_VIEW_CLIP_BOUNDS(3)
XGL_CTX_VIEW_TRANS(3)

XGL_OBJ_APPLICATION_DATA(3)
XGL_OBJ_SYS_STATE(3)
XGL_OBJ_TYPE(3)