NAME

xgl_macro_values – XGL macro values

DESCRIPTION

This section lists the different macro values XGL uses. The values appear with brief descriptions explaining their use, and they are listed by name in alphabetical order.

Buffer Selector

typedef Xgl_sgn32 Xgl_buffer_sel;

XGL_BUFFER_SEL_Z
XGL_BUFFER_SEL_ACCUM
XGL_BUFFER_SEL_DRAW
XGL_BUFFER_SEL_DISPLAY
XGL_BUFFER_SEL_NONE

Stroke Text Types

Character encoding schemes.

typedef Xgl_usgn32 Xgl_char_encoding;

XGL_CHAR_MBY
XGL_CHAR_ISO
XGL_SINGLE_STR
XGL_MULTI_STR

Flags for Enabling View Clip Planes

typedef Xgl_usgn32 Xgl_clip_planes;

XGL_CLIP_XMIN
XGL_CLIP_XMAX
XGL_CLIP_YMIN
XGL_CLIP_YMAX
XGL_CLIP_ZMIN
XGL_CLIP_ZMAX

Context New Frame Action

typedef Xgl_usgn32 Xgl_ctx_new_frame_action;

XGL_CTX_NEW_FRAME_NONE
XGL_CTX_NEW_FRAME_VRETRACE
XGL_CTX_NEW_FRAME_CLEAR
XGL_CTX_NEW_FRAME_HLHSR_ACTION
XGL_CTX_NEW_FRAME_SWITCH_BUFFER

Facet Flags

Describes the different facet flags to speed up polygon display.

typedef Xgl_usgn32 Xgl_facet_flags;

/* mask and flags for facet sides */
XGL_FACET_FLAG_SIDES_MASK
XGL_FACET_FLAG_SIDES_UNSPECIFIED
XGL_FACET_FLAG_SIDES_ARE_3
XGL_FACET_FLAG_SIDES_ARE_4

/* mask and flags for convexity information */
XGL_FACET_FLAG_SHAPE_MASK
XGL_FACET_FLAG_SHAPE_UNKNOWN
XGL_FACET_FLAG_SHAPE_NONCONVEX
XGL_FACET_FLAG_SHAPE_CONVEX

/* mask and flags to indicate that Facet Normals are consistent */
XGL_FACET_FLAG_FN_CONSISTENT_MASK
XGL_FACET_FLAG_FN_NOT_CONSISTENT
XGL_FACET_FLAG_FN_CONSISTENT

/* mask and flags for geometry data */
XGL_FACET_FLAG_DATA_CONTIG_MASK
XGL_FACET_FLAG_DATA_NOT_CONTIG
XGL_FACET_FLAG_DATA_CONTIG

/* OR all facet flag mask */
XGL_FACET_FLAG_ALL_MASKS

Flush Action

typedef Xgl_usgn32 Xgl_flush_action;
XGL_FLUSH_GEOM_DATA
XGL_FLUSH_BUFFERS
XGL_FLUSH_SYNCHRONIZE

Geometry Status

Geometry status for bounding box and facet orientation.

typedef Xgl_usgn32 Xgl_geom_status;
XGL_GEOM_STATUS_VIEW_ACCEPT
XGL_GEOM_STATUS_VIEW_REJECT
XGL_GEOM_STATUS_VIEW_SMALL
XGL_GEOM_STATUS_MODEL_ACCEPT
XGL_GEOM_STATUS_MODEL_REJECT
XGL_GEOM_STATUS_FACING_FRONT
XGL_GEOM_STATUS_FACING_BACK

Light Enable Component

typedef Xgl_usgn32 Xgl_light_enable_component;

XGL_LIGHT_ENABLE_COMP_AMBIENT
XGL_LIGHT_ENABLE_COMP_DIFFUSE
XGL_LIGHT_ENABLE_COMP_SPECULAR

Flags For Updating the Context Model Transforms

typedef Xgl_usgn32 Xgl_model_trans_request;

XGL_MTR_PUSH
XGL_MTR_POP
XGL_MTR_LOCAL_TRANS
XGL_MTR_GLOBAL_TRANS
XGL_MTR_NEW_LEVEL

NURBS Surface Styles

typedef Xgl_usgn32 Xgl_nurbs_surf_param_style;

XGL_SURF_PLAIN
XGL_SURF_ISO_CURVES
XGL_SURF_MC_LEVEL_CURVES
XGL_SURF_WC_LEVEL_CURVES
XGL_SURF_SHOW_TESSELLATION
XGL_SURF_INCR_SILHOUETTE_TESS
XGL_SURF_DEVICE_DEPENDENT

Render Mode

typedef Xgl_usgn32 Xgl_render_mode;

XGL_RENDER_DISPLAY_BUFFER
XGL_RENDER_DRAW_BUFFER
XGL_RENDER_Z_BUFFER
XGL_RENDER_ACCUM_BUFFER

Raster Operations (Two Styles: Pixrect and X11)

typedef Xgl_usgn32 Xgl_rop_mode;

/* Raster operations (Pixrect): XGL_ROP_SRC and XGL_ROP_DST can be combined
 * with the C the binary operators |, &, ^, and the macro XGL_ROP_NOT.
 */

XGL_ROP_CLR
XGL_ROP_SET
XGL_ROP_NOT(op)
XGL_ROP_SRC
XGL_ROP_DST

/* Raster operations (X11) */

XGL_ROP_CLEAR

XGL_ROP_AND
XGL_ROP_AND_REVERSE
XGL_ROP_AND_INVERTED
XGL_ROP_XOR
XGL_ROP_OR
XGL_ROP_NOR
XGL_ROP_EQUIV
XGL_ROP_INVERT
XGL_ROP_OR_REVERSE
XGL_ROP_COPY_INVERTED
XGL_ROP_OR_INVERTED
XGL_ROP_NAND

Triangle List Global Flag Word

typedef Xgl_usgn32 Xgl_tlist_flags;

/* mutually exclusive tri_list flag bits */
XGL_TLIST_FLAG_TRI_RESTART
XGL_TLIST_FLAG_TRI_STRIP
XGL_TLIST_FLAG_TRI_STAR
XGL_TLIST_FLAG_USE_VTX_FLAGS
XGL_TLIST_FLAG_TRI_MASK

/* other tri_list flag bits */
XGL_TLIST_FLAG_EDGES_ON
XGL_TLIST_FLAG_IS_PLANAR

/* mask and flag to indicate that Facet Normals are consistent */
XGL_TLIST_FLAG_FN_CONSISTENT_MASK
XGL_TLIST_FLAG_FN_NOT_CONSISTENT
XGL_TLIST_FLAG_FN_CONSISTENT

XGL_TLIST_FLAG_ALL_MASKS

Transform Memberships

typedef Xgl_usgn32 Xgl_trans_member;
XGL_TRANS_MEMBER_IDENTITY
XGL_TRANS_MEMBER_TRANSLATION
XGL_TRANS_MEMBER_SCALE
XGL_TRANS_MEMBER_ROTATION
XGL_TRANS_MEMBER_WINDOW
XGL_TRANS_MEMBER_SHEAR_SCALE
XGL_TRANS_MEMBER_LENGTH_PRESERV
XGL_TRANS_MEMBER_ANGLE_PRESERV
XGL_TRANS_MEMBER_AFFINE

XGL_TRANS_MEMBER_LIM_PERSPECTIVE

Macros and Defines for Setting Vertex Flags

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XGL_VERTEX_PICK_BITS            /* bits used to encode vertex pick info */

XGL_DRAW_EDGE                   /* edge from v(n) to v(n-1) */
XGL_DRAW_PREV_EDGE              /* other edge for strips/stars/quads */
XGL_DRAW_BOTH_EDGES

XGL_TRIANGLE_STRIP              /* per-vertex triangle star */
XGL_TRIANGLE_STAR               /* per-vertex triangle strip */
XGL_TRIANGLE_RESTART            /* per-vertex independent triangles */

/* For restartable triangles see XGL_RESTART_TRIANGLE(PT) below */
XGL_STAR_AND_BOTH_EDGES (XGL_TRIANGLE_STAR | XGL_DRAW_BOTH_EDGES)
XGL_STRIP_AND_BOTH_EDGES (XGL_TRIANGLE_STRIP | XGL_DRAW_BOTH_EDGES)

XGL_FACE_IS_CCW                 /* face orientation */
XGL_EDGE_IS_INTERNAL            /* edge from v(n) to v(n-1) is internal */
XGL_PREV_EDGE_IS_INTERNAL       /* other edge is internal */

/* modify the following to set bits that copy convert should keep */
XGL_PRESERVED_FLAG_BITS (XGL_STAR_AND_BOTH_EDGES | XGL_VERTEX_PICK_BITS)

/* use the following macros to set and get pick vertex values from vertex flags */
XGL_SET_VERTEX_PICK(PICK_VAL)   (PICK_VAL << 16)        /* shift PICK_VAL to proper bits
                                                           for FLAG */

XGL_GET_VERTEX_PICK(FLAG)       ((FLAG >> 16) & 0xffff) /* get pick value bits from FLAG */

XGL_SET_EDGE_FLAG(PT)           (PT)->flag |= XGL_DRAW_EDGE;

XGL_SET_PREV_EDGE_FLAG(PT)      (PT)->flag |= XGL_DRAW_PREV_EDGE;

XGL_SET_BOTH_EDGE_FLAGS(PT)     (PT)->flag |= XGL_DRAW_BOTH_EDGES;

XGL_SET_TRI_STAR_FLAG(PT)       (PT)->flag |= XGL_TRIANGLE_STAR;

XGL_SET_TRI_STRIP_FLAG(PT)      (PT)->flag |= XGL_TRIANGLE_STRIP;

XGL_CLR_EDGE_FLAG(PT)           (PT)->flag &= ~XGL_DRAW_EDGE;

XGL_CLR_PREV_EDGE_FLAG(PT)      (PT)->flag &= ~XGL_DRAW_PREV_EDGE;

XGL_CLR_BOTH_EDGE_FLAGS(PT)     (PT)->flag &= ~XGL_DRAW_BOTH_EDGES;
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XGL_CLR_TRI_STAR_FLAG(PT)	(PT)->flag &= ˜XGL_TRIANGLE_STAR;
XGL_CLR_TRI_STRIP_FLAG(PT)	(PT)->flag &= ˜XGL_TRIANGLE_STRIP;
XGL_RESTART_TRIANGLE(PT)	(PT)->flag &= ˜(XGL_TRIANGLE_STRIP | XGL_TRIANGLE_STAR);

Window Types

Choice available for **XGL_WIN_RAS_TYPE**(3)**.**

typedef Xgl_usgn32 Xgl_window_type;
XGL_WIN_X

/* Protocols are in the upper 24 bits */
XGL_WIN_PROTO_MASK

/* WIN_X protocols */
XGL_WIN_X_PROTO_DEFAULT
XGL_WIN_X_PROTO_XLIB
XGL_WIN_X_PROTO_PEX
XGL_WIN_X_PROTO_DGA

SEE ALSO

xgl_enum_types(3)
xgl_pt_list(3)
xgl_struct(3)