

openglwrap.c

```
$GL_FALSE = GL_FALSE
    [ Constant : int ]

$GL_TRUE = GL_TRUE
    [ Constant : int ]

$GL_BYTE = GL_BYTE
    [ Constant : int ]

$GL_UNSIGNED_BYTE = GL_UNSIGNED_BYTE
    [ Constant : int ]

$GL_SHORT = GL_SHORT
    [ Constant : int ]

$GL_UNSIGNED_SHORT = GL_UNSIGNED_SHORT
    [ Constant : int ]

$GL_INT = GL_INT
    [ Constant : int ]

$GL_UNSIGNED_INT = GL_UNSIGNED_INT
    [ Constant : int ]

$GL_FLOAT = GL_FLOAT
    [ Constant : int ]

$GL_2_BYTES = GL_2_BYTES
    [ Constant : int ]

$GL_3_BYTES = GL_3_BYTES
    [ Constant : int ]

$GL_4_BYTES = GL_4_BYTES
    [ Constant : int ]
    GL_DOUBLE_EXT = 0x140A,

$GL_LINES = GL_LINES
    [ Constant : int ]

$GL_POINTS = GL_POINTS
    [ Constant : int ]

$GL_LINE_STRIP = GL_LINE_STRIP
    [ Constant : int ]

$GL_LINE_LOOP = GL_LINE_LOOP
    [ Constant : int ]

$GL_TRIANGLES = GL_TRIANGLES
    [ Constant : int ]

$GL_TRIANGLE_STRIP = GL_TRIANGLE_STRIP
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    [ Constant : int ]

$GL_TRIANGLE_FAN = GL_TRIANGLE_FAN
    [ Constant : int ]

$GL_QUADS = GL_QUADS
    [ Constant : int ]

$GL_QUAD_STRIP = GL_QUAD_STRIP
    [ Constant : int ]

$GL_POLYGON = GL_POLYGON
    [ Constant : int ]

$GL_EDGE_FLAG = GL_EDGE_FLAG
    [ Constant : int ]

$GL_MATRIX_MODE = GL_MATRIX_MODE
    [ Constant : int ]

$GL_MODELVIEW = GL_MODELVIEW
    [ Constant : int ]

$GL_PROJECTION = GL_PROJECTION
    [ Constant : int ]

$GL_TEXTURE = GL_TEXTURE
    [ Constant : int ]

$GL_POINT_SMOOTH = GL_POINT_SMOOTH
    [ Constant : int ]

$GL_POINT_SIZE = GL_POINT_SIZE
    [ Constant : int ]

$GL_POINT_SIZE_GRANULARITY = GL_POINT_SIZE_GRANULARITY
    [ Constant : int ]

$GL_POINT_SIZE_RANGE = GL_POINT_SIZE_RANGE
    [ Constant : int ]

$GL_LINE_SMOOTH = GL_LINE_SMOOTH
    [ Constant : int ]

$GL_LINE_STIPPLE = GL_LINE_STIPPLE
    [ Constant : int ]

$GL_LINE_STIPPLE_PATTERN = GL_LINE_STIPPLE_PATTERN
    [ Constant : int ]

$GL_LINE_STIPPLE_REPEAT = GL_LINE_STIPPLE_REPEAT
    [ Constant : int ]

$GL_LINE_WIDTH = GL_LINE_WIDTH
    [ Constant : int ]

$GL_LINE_WIDTH_GRANULARITY = GL_LINE_WIDTH_GRANULARITY
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    [ Constant : int ]

$GL_LINE_WIDTH_RANGE = GL_LINE_WIDTH_RANGE
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$GL_POINT = GL_POINT
    [ Constant : int ]

$GL_LINE = GL_LINE
    [ Constant : int ]

$GL_FILL = GL_FILL
    [ Constant : int ]

$GL_CCW = GL_CCW
    [ Constant : int ]

$GL_CW = GL_CW
    [ Constant : int ]

$GL_FRONT = GL_FRONT
    [ Constant : int ]

$GL_BACK = GL_BACK
    [ Constant : int ]

$GL_CULL_FACE = GL_CULL_FACE
    [ Constant : int ]

$GL_CULL_FACE_MODE = GL_CULL_FACE_MODE
    [ Constant : int ]

$GL_POLYGON_SMOOTH = GL_POLYGON_SMOOTH
    [ Constant : int ]

$GL_POLYGON_STIPPLE = GL_POLYGON_STIPPLE
    [ Constant : int ]

$GL_FRONT_FACE = GL_FRONT_FACE
    [ Constant : int ]

$GL_POLYGON_MODE = GL_POLYGON_MODE
    [ Constant : int ]

$GL_COMPILE = GL_COMPILE
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$GL_COMPILE_AND_EXECUTE = GL_COMPILE_AND_EXECUTE
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$GL_LIST_BASE = GL_LIST_BASE
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$GL_LIST_INDEX = GL_LIST_INDEX
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$GL_LIST_MODE = GL_LIST_MODE
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        [ Constant : int ]

$GL_NEVER = GL_NEVER
        [ Constant : int ]

$GL_LESS = GL_LESS
        [ Constant : int ]

$GL_GEQUAL = GL_GEQUAL
        [ Constant : int ]

$GL_LEQUAL = GL_LEQUAL
        [ Constant : int ]

$GL_GREATER = GL_GREATER
        [ Constant : int ]

$GL_NOTEQUAL = GL_NOTEQUAL
        [ Constant : int ]

$GL_EQUAL = GL_EQUAL
        [ Constant : int ]

$GL_ALWAYS = GL_ALWAYS
        [ Constant : int ]

$GL_DEPTH_TEST = GL_DEPTH_TEST
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$GL_DEPTH_BITS = GL_DEPTH_BITS
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$GL_DEPTH_CLEAR_VALUE = GL_DEPTH_CLEAR_VALUE
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$GL_DEPTH_FUNC = GL_DEPTH_FUNC
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$GL_DEPTH_RANGE = GL_DEPTH_RANGE
        [ Constant : int ]

$GL_DEPTH_WRITEMASK = GL_DEPTH_WRITEMASK
        [ Constant : int ]

$GL_DEPTH_COMPONENT = GL_DEPTH_COMPONENT
        [ Constant : int ]

$GL_LIGHTING = GL_LIGHTING
        [ Constant : int ]

$GL_LIGHT0 = GL_LIGHT0
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$GL_LIGHT1 = GL_LIGHT1
        [ Constant : int ]

$GL_LIGHT2 = GL_LIGHT2
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    [ Constant : int ]

$GL_LIGHT3 = GL_LIGHT3
    [ Constant : int ]

$GL_LIGHT4 = GL_LIGHT4
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$GL_LIGHT5 = GL_LIGHT5
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$GL_LIGHT6 = GL_LIGHT6
    [ Constant : int ]

$GL_LIGHT7 = GL_LIGHT7
    [ Constant : int ]

$GL_SPOT_EXPONENT = GL_SPOT_EXPONENT
    [ Constant : int ]

$GL_SPOT_CUTOFF = GL_SPOT_CUTOFF
    [ Constant : int ]

$GL_CONSTANT_ATTENUATION = GL_CONSTANT_ATTENUATION
    [ Constant : int ]

$GL_LINEAR_ATTENUATION = GL_LINEAR_ATTENUATION
    [ Constant : int ]

$GL_QUADRATIC_ATTENUATION = GL_QUADRATIC_ATTENUATION
    [ Constant : int ]

$GL_AMBIENT = GL_AMBIENT
    [ Constant : int ]

$GL_DIFFUSE = GL_DIFFUSE
    [ Constant : int ]

$GL_SPECULAR = GL_SPECULAR
    [ Constant : int ]

$GL_SHININESS = GL_SHININESS
    [ Constant : int ]

$GL_EMISSION = GL_EMISSION
    [ Constant : int ]

$GL_POSITION = GL_POSITION
    [ Constant : int ]

$GL_SPOT_DIRECTION = GL_SPOT_DIRECTION
    [ Constant : int ]

$GL_AMBIENT_AND_DIFFUSE = GL_AMBIENT_AND_DIFFUSE
    [ Constant : int ]

$GL_COLOR_INDEXES = GL_COLOR_INDEXES
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[ Constant : int ]

$GL_LIGHT_MODEL_TWO_SIDE = GL_LIGHT_MODEL_TWO_SIDE
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$GL_LIGHT_MODEL_LOCAL_VIEWER = GL_LIGHT_MODEL_LOCAL_VIEWER
[ Constant : int ]

$GL_LIGHT_MODEL_AMBIENT = GL_LIGHT_MODEL_AMBIENT
[ Constant : int ]

$GL_FRONT_AND_BACK = GL_FRONT_AND_BACK
[ Constant : int ]

$GL_SHADE_MODEL = GL_SHADE_MODEL
[ Constant : int ]

$GL_FLAT = GL_FLAT
[ Constant : int ]

$GL_SMOOTH = GL_SMOOTH
[ Constant : int ]

$GL_COLOR_MATERIAL = GL_COLOR_MATERIAL
[ Constant : int ]

$GL_COLOR_MATERIAL_FACE = GL_COLOR_MATERIAL_FACE
[ Constant : int ]

$GL_COLOR_MATERIAL_PARAMETER = GL_COLOR_MATERIAL_PARAMETER
[ Constant : int ]

$GL_NORMALIZE = GL_NORMALIZE
[ Constant : int ]

$GL_CLIP_PLANE0 = GL_CLIP_PLANE0
[ Constant : int ]

$GL_CLIP_PLANE1 = GL_CLIP_PLANE1
[ Constant : int ]

$GL_CLIP_PLANE2 = GL_CLIP_PLANE2
[ Constant : int ]

$GL_CLIP_PLANE3 = GL_CLIP_PLANE3
[ Constant : int ]

$GL_CLIP_PLANE4 = GL_CLIP_PLANE4
[ Constant : int ]

$GL_CLIP_PLANE5 = GL_CLIP_PLANE5
[ Constant : int ]

$GL_ACCUM_RED_BITS = GL_ACCUM_RED_BITS
[ Constant : int ]

$GL_ACCUM_GREEN_BITS = GL_ACCUM_GREEN_BITS
```

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[ Constant : int ]

$GL_ACCUM_BLUE_BITS = GL_ACCUM_BLUE_BITS
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$GL_ACCUM_ALPHA_BITS = GL_ACCUM_ALPHA_BITS
[ Constant : int ]

$GL_ACCUM_CLEAR_VALUE = GL_ACCUM_CLEAR_VALUE
[ Constant : int ]

$GL_ACCUM = GL_ACCUM
[ Constant : int ]

$GL_ADD = GL_ADD
[ Constant : int ]

$GL_LOAD = GL_LOAD
[ Constant : int ]

$GL_MULT = GL_MULT
[ Constant : int ]

$GL_RETURN = GL_RETURN
[ Constant : int ]

$GL_ALPHA_TEST = GL_ALPHA_TEST
[ Constant : int ]

$GL_ALPHA_TEST_REF = GL_ALPHA_TEST_REF
[ Constant : int ]

$GL_ALPHA_TEST_FUNC = GL_ALPHA_TEST_FUNC
[ Constant : int ]

$GL_BLEND = GL_BLEND
[ Constant : int ]

$GL_BLEND_SRC = GL_BLEND_SRC
[ Constant : int ]

$GL_BLEND_DST = GL_BLEND_DST
[ Constant : int ]

$GL_ZERO = GL_ZERO
[ Constant : int ]

$GL_ONE = GL_ONE
[ Constant : int ]

$GL_SRC_COLOR = GL_SRC_COLOR
[ Constant : int ]

$GL_ONE_MINUS_SRC_COLOR = GL_ONE_MINUS_SRC_COLOR
[ Constant : int ]

$GL_DST_COLOR = GL_DST_COLOR
```

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    [ Constant : int ]

$GL_ONE_MINUS_DST_COLOR = GL_ONE_MINUS_DST_COLOR
    [ Constant : int ]

$GL_SRC_ALPHA = GL_SRC_ALPHA
    [ Constant : int ]

$GL_ONE_MINUS_SRC_ALPHA = GL_ONE_MINUS_SRC_ALPHA
    [ Constant : int ]

$GL_DST_ALPHA = GL_DST_ALPHA
    [ Constant : int ]

$GL_ONE_MINUS_DST_ALPHA = GL_ONE_MINUS_DST_ALPHA
    [ Constant : int ]

$GL_SRC_ALPHA_SATURATE = GL_SRC_ALPHA_SATURATE
    [ Constant : int ]

$GL_FEEDBACK = GL_FEEDBACK
    [ Constant : int ]

$GL_RENDER = GL_RENDER
    [ Constant : int ]

$GL_SELECT = GL_SELECT
    [ Constant : int ]

$GL_2D = GL_2D
    [ Constant : int ]

$GL_3D = GL_3D
    [ Constant : int ]

$GL_3D_COLOR = GL_3D_COLOR
    [ Constant : int ]

$GL_3D_COLOR_TEXTURE = GL_3D_COLOR_TEXTURE
    [ Constant : int ]

$GL_4D_COLOR_TEXTURE = GL_4D_COLOR_TEXTURE
    [ Constant : int ]

$GL_POINT_TOKEN = GL_POINT_TOKEN
    [ Constant : int ]

$GL_LINE_TOKEN = GL_LINE_TOKEN
    [ Constant : int ]

$GL_LINE_RESET_TOKEN = GL_LINE_RESET_TOKEN
    [ Constant : int ]

$GL_POLYGON_TOKEN = GL_POLYGON_TOKEN
    [ Constant : int ]

$GL_BITMAP_TOKEN = GL_BITMAP_TOKEN
```

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    [ Constant : int ]

$GL_DRAW_PIXEL_TOKEN = GL_DRAW_PIXEL_TOKEN
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$GL_COPY_PIXEL_TOKEN = GL_COPY_PIXEL_TOKEN
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$GL_PASS_THROUGH_TOKEN = GL_PASS_THROUGH_TOKEN
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$GL_FOG = GL_FOG
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$GL_FOG_MODE = GL_FOG_MODE
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$GL_FOG_DENSITY = GL_FOG_DENSITY
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$GL_FOG_COLOR = GL_FOG_COLOR
    [ Constant : int ]

$GL_FOG_INDEX = GL_FOG_INDEX
    [ Constant : int ]

$GL_FOG_START = GL_FOG_START
    [ Constant : int ]

$GL_FOG_END = GL_FOG_END
    [ Constant : int ]

$GL_LINEAR = GL_LINEAR
    [ Constant : int ]

$GL_EXP = GL_EXP
    [ Constant : int ]

$GL_EXP2 = GL_EXP2
    [ Constant : int ]

$GL_LOGIC_OP = GL_LOGIC_OP
    [ Constant : int ]

$GL_LOGIC_OP_MODE = GL_LOGIC_OP_MODE
    [ Constant : int ]

$GL_CLEAR = GL_CLEAR
    [ Constant : int ]

$GL_SET = GL_SET
    [ Constant : int ]

$GL_COPY = GL_COPY
    [ Constant : int ]

$GL_COPY_INVERTED = GL_COPY_INVERTED
```

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        [ Constant : int ]

$GL_NOOP = GL_NOOP
        [ Constant : int ]

$GL_INVERT = GL_INVERT
        [ Constant : int ]

$GL_AND = GL_AND
        [ Constant : int ]

$GL_NAND = GL_NAND
        [ Constant : int ]

$GL_OR = GL_OR
        [ Constant : int ]

$GL_NOR = GL_NOR
        [ Constant : int ]

$GL_XOR = GL_XOR
        [ Constant : int ]

$GL_EQUIV = GL_EQUIV
        [ Constant : int ]

$GL_AND_REVERSE = GL_AND_REVERSE
        [ Constant : int ]

$GL_AND_INVERTED = GL_AND_INVERTED
        [ Constant : int ]

$GL_OR_REVERSE = GL_OR_REVERSE
        [ Constant : int ]

$GL_OR_INVERTED = GL_OR_INVERTED
        [ Constant : int ]

$GL_STENCIL_TEST = GL_STENCIL_TEST
        [ Constant : int ]

$GL_STENCIL_WRITEMASK = GL_STENCIL_WRITEMASK
        [ Constant : int ]

$GL_STENCIL_BITS = GL_STENCIL_BITS
        [ Constant : int ]

$GL_STENCIL_FUNC = GL_STENCIL_FUNC
        [ Constant : int ]

$GL_STENCIL_VALUE_MASK = GL_STENCIL_VALUE_MASK
        [ Constant : int ]

$GL_STENCIL_REF = GL_STENCIL_REF
        [ Constant : int ]

$GL_STENCIL_FAIL = GL_STENCIL_FAIL
```

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[ Constant : int ]

$GL_STENCIL_PASS_DEPTH_PASS = GL_STENCIL_PASS_DEPTH_PASS
    [ Constant : int ]

$GL_STENCIL_PASS_DEPTH_FAIL = GL_STENCIL_PASS_DEPTH_FAIL
    [ Constant : int ]

$GL_STENCIL_CLEAR_VALUE = GL_STENCIL_CLEAR_VALUE
    [ Constant : int ]

$GL_STENCIL_INDEX = GL_STENCIL_INDEX
    [ Constant : int ]

$GL_KEEP = GL_KEEP
    [ Constant : int ]

$GL_REPLACE = GL_REPLACE
    [ Constant : int ]

$GL_INCR = GL_INCR
    [ Constant : int ]

$GL_DECR = GL_DECR
    [ Constant : int ]

$GL_NONE = GL_NONE
    [ Constant : int ]

$GL_LEFT = GL_LEFT
    [ Constant : int ]

$GL_RIGHT = GL_RIGHT
    [ Constant : int ]
    GL_FRONT = 0x0404, GL_BACK = 0x0405, GL_FRONT_AND_BACK = 0x0408,

$GL_FRONT_LEFT = GL_FRONT_LEFT
    [ Constant : int ]

$GL_FRONT_RIGHT = GL_FRONT_RIGHT
    [ Constant : int ]

$GL_BACK_LEFT = GL_BACK_LEFT
    [ Constant : int ]

$GL_BACK_RIGHT = GL_BACK_RIGHT
    [ Constant : int ]

$GL_AUX0 = GL_AUX0
    [ Constant : int ]

$GL_AUX1 = GL_AUX1
    [ Constant : int ]

$GL_AUX2 = GL_AUX2
    [ Constant : int ]
```

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$GL_AUX3 = GL_AUX3
    [ Constant : int ]

$GL_COLOR_INDEX = GL_COLOR_INDEX
    [ Constant : int ]

$GL_RED = GL_RED
    [ Constant : int ]

$GL_GREEN = GL_GREEN
    [ Constant : int ]

$GL_BLUE = GL_BLUE
    [ Constant : int ]

$GL_ALPHA = GL_ALPHA
    [ Constant : int ]

$GL_LUMINANCE = GL_LUMINANCE
    [ Constant : int ]

$GL_LUMINANCE_ALPHA = GL_LUMINANCE_ALPHA
    [ Constant : int ]

$GL_ALPHA_BITS = GL_ALPHA_BITS
    [ Constant : int ]

$GL_RED_BITS = GL_RED_BITS
    [ Constant : int ]

$GL_GREEN_BITS = GL_GREEN_BITS
    [ Constant : int ]

$GL_BLUE_BITS = GL_BLUE_BITS
    [ Constant : int ]

$GL_INDEX_BITS = GL_INDEX_BITS
    [ Constant : int ]

$GL_SUBPIXEL_BITS = GL_SUBPIXEL_BITS
    [ Constant : int ]

$GL_AUX_BUFFERS = GL_AUX_BUFFERS
    [ Constant : int ]

$GL_READ_BUFFER = GL_READ_BUFFER
    [ Constant : int ]

$GL_DRAW_BUFFER = GL_DRAW_BUFFER
    [ Constant : int ]

$GL_DOUBLEBUFFER = GL_DOUBLEBUFFER
    [ Constant : int ]

$GL_STEREO = GL_STEREO
    [ Constant : int ]
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```
$GL_BITMAP = GL_BITMAP
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$GL_COLOR = GL_COLOR
    [ Constant : int ]

$GL_DEPTH = GL_DEPTH
    [ Constant : int ]

$GL_STENCIL = GL_STENCIL
    [ Constant : int ]

$GL_DITHER = GL_DITHER
    [ Constant : int ]

$GL_RGB = GL_RGB
    [ Constant : int ]

$GL_RGBA = GL_RGBA
    [ Constant : int ]

$GL_MAX_MODELVIEW_STACK_DEPTH = GL_MAX_MODELVIEW_STACK_DEPTH
    [ Constant : int ]

$GL_MAX_PROJECTION_STACK_DEPTH = GL_MAX_PROJECTION_STACK_DEPTH
    [ Constant : int ]

$GL_MAX_TEXTURE_STACK_DEPTH = GL_MAX_TEXTURE_STACK_DEPTH
    [ Constant : int ]

$GL_MAX_ATTRIB_STACK_DEPTH = GL_MAX_ATTRIB_STACK_DEPTH
    [ Constant : int ]

$GL_MAX_NAME_STACK_DEPTH = GL_MAX_NAME_STACK_DEPTH
    [ Constant : int ]

$GL_MAX_LIST_NESTING = GL_MAX_LIST_NESTING
    [ Constant : int ]

$GL_MAX_LIGHTS = GL_MAX_LIGHTS
    [ Constant : int ]

$GL_MAX_CLIP_PLANES = GL_MAX_CLIP_PLANES
    [ Constant : int ]

$GL_MAX_VIEWPORT_DIMS = GL_MAX_VIEWPORT_DIMS
    [ Constant : int ]

$GL_MAX_PIXEL_MAP_TABLE = GL_MAX_PIXEL_MAP_TABLE
    [ Constant : int ]

$GL_MAX_EVAL_ORDER = GL_MAX_EVAL_ORDER
    [ Constant : int ]

$GL_MAX_TEXTURE_SIZE = GL_MAX_TEXTURE_SIZE
    [ Constant : int ]
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$GL_ATTRIB_STACK_DEPTH = GL_ATTRIB_STACK_DEPTH
    [ Constant : int ]

$GL_COLOR_CLEAR_VALUE = GL_COLOR_CLEAR_VALUE
    [ Constant : int ]

$GL_COLOR_WRITEMASK = GL_COLOR_WRITEMASK
    [ Constant : int ]

$GL_CURRENT_INDEX = GL_CURRENT_INDEX
    [ Constant : int ]

$GL_CURRENT_COLOR = GL_CURRENT_COLOR
    [ Constant : int ]

$GL_CURRENT_NORMAL = GL_CURRENT_NORMAL
    [ Constant : int ]

$GL_CURRENT_RASTER_COLOR = GL_CURRENT_RASTER_COLOR
    [ Constant : int ]

$GL_CURRENT_RASTER_DISTANCE = GL_CURRENT_RASTER_DISTANCE
    [ Constant : int ]

$GL_CURRENT_RASTER_INDEX = GL_CURRENT_RASTER_INDEX
    [ Constant : int ]

$GL_CURRENT_RASTER_POSITION = GL_CURRENT_RASTER_POSITION
    [ Constant : int ]

$GL_CURRENT_RASTER_TEXTURE_COORDS = GL_CURRENT_RASTER_TEXTURE_COORDS
    [ Constant : int ]

$GL_CURRENT_RASTER_POSITION_VALID = GL_CURRENT_RASTER_POSITION_VALID
    [ Constant : int ]

$GL_CURRENT_TEXTURE_COORDS = GL_CURRENT_TEXTURE_COORDS
    [ Constant : int ]

$GL_INDEX_CLEAR_VALUE = GL_INDEX_CLEAR_VALUE
    [ Constant : int ]

$GL_INDEX_MODE = GL_INDEX_MODE
    [ Constant : int ]

$GL_INDEX_WRITEMASK = GL_INDEX_WRITEMASK
    [ Constant : int ]

$GL_MODELVIEW_MATRIX = GL_MODELVIEW_MATRIX
    [ Constant : int ]

$GL_MODELVIEW_STACK_DEPTH = GL_MODELVIEW_STACK_DEPTH
    [ Constant : int ]

$GL_NAME_STACK_DEPTH = GL_NAME_STACK_DEPTH
    [ Constant : int ]
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$GL_PROJECTION_MATRIX = GL_PROJECTION_MATRIX
    [ Constant : int ]

$GL_PROJECTION_STACK_DEPTH = GL_PROJECTION_STACK_DEPTH
    [ Constant : int ]

$GL_RENDER_MODE = GL_RENDER_MODE
    [ Constant : int ]

$GL_RGBA_MODE = GL_RGBA_MODE
    [ Constant : int ]

$GL_TEXTURE_MATRIX = GL_TEXTURE_MATRIX
    [ Constant : int ]

$GL_TEXTURE_STACK_DEPTH = GL_TEXTURE_STACK_DEPTH
    [ Constant : int ]

$GL_VIEWPORT = GL_VIEWPORT
    [ Constant : int ]

$GL_AUTO_NORMAL = GL_AUTO_NORMAL
    [ Constant : int ]

$GL_MAP1_COLOR_4 = GL_MAP1_COLOR_4
    [ Constant : int ]

$GL_MAP1_GRID_DOMAIN = GL_MAP1_GRID_DOMAIN
    [ Constant : int ]

$GL_MAP1_GRID_SEGMENTS = GL_MAP1_GRID_SEGMENTS
    [ Constant : int ]

$GL_MAP1_INDEX = GL_MAP1_INDEX
    [ Constant : int ]

$GL_MAP1_NORMAL = GL_MAP1_NORMAL
    [ Constant : int ]

$GL_MAP1_TEXTURE_COORD_1 = GL_MAP1_TEXTURE_COORD_1
    [ Constant : int ]

$GL_MAP1_TEXTURE_COORD_2 = GL_MAP1_TEXTURE_COORD_2
    [ Constant : int ]

$GL_MAP1_TEXTURE_COORD_3 = GL_MAP1_TEXTURE_COORD_3
    [ Constant : int ]

$GL_MAP1_TEXTURE_COORD_4 = GL_MAP1_TEXTURE_COORD_4
    [ Constant : int ]

$GL_MAP1_VERTEX_3 = GL_MAP1_VERTEX_3
    [ Constant : int ]

$GL_MAP1_VERTEX_4 = GL_MAP1_VERTEX_4
    [ Constant : int ]
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$GL_MAP2_COLOR_4 = GL_MAP2_COLOR_4
    [ Constant : int ]

$GL_MAP2_GRID_DOMAIN = GL_MAP2_GRID_DOMAIN
    [ Constant : int ]

$GL_MAP2_GRID_SEGMENTS = GL_MAP2_GRID_SEGMENTS
    [ Constant : int ]

$GL_MAP2_INDEX = GL_MAP2_INDEX
    [ Constant : int ]

$GL_MAP2_NORMAL = GL_MAP2_NORMAL
    [ Constant : int ]

$GL_MAP2_TEXTURE_COORD_1 = GL_MAP2_TEXTURE_COORD_1
    [ Constant : int ]

$GL_MAP2_TEXTURE_COORD_2 = GL_MAP2_TEXTURE_COORD_2
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$GL_MAP2_TEXTURE_COORD_3 = GL_MAP2_TEXTURE_COORD_3
    [ Constant : int ]

$GL_MAP2_TEXTURE_COORD_4 = GL_MAP2_TEXTURE_COORD_4
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$GL_MAP2_VERTEX_3 = GL_MAP2_VERTEX_3
    [ Constant : int ]

$GL_MAP2_VERTEX_4 = GL_MAP2_VERTEX_4
    [ Constant : int ]

$GL_COEFF = GL_COEFF
    [ Constant : int ]

$GL_DOMAIN = GL_DOMAIN
    [ Constant : int ]

$GL_ORDER = GL_ORDER
    [ Constant : int ]

$GL_FOG_HINT = GL_FOG_HINT
    [ Constant : int ]

$GL_LINE_SMOOTH_HINT = GL_LINE_SMOOTH_HINT
    [ Constant : int ]

$GL_PERSPECTIVE_CORRECTION_HINT = GL_PERSPECTIVE_CORRECTION_HINT
    [ Constant : int ]

$GL_POINT_SMOOTH_HINT = GL_POINT_SMOOTH_HINT
    [ Constant : int ]

$GL_POLYGON_SMOOTH_HINT = GL_POLYGON_SMOOTH_HINT
    [ Constant : int ]
```

```
$GL_DONT_CARE = GL_DONT_CARE
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$GL_FASTEST = GL_FASTEST
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$GL_NICEST = GL_NICEST
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$GL_SCISSOR_TEST = GL_SCISSOR_TEST
    [ Constant : int ]

$GL_SCISSOR_BOX = GL_SCISSOR_BOX
    [ Constant : int ]

$GL_MAP_COLOR = GL_MAP_COLOR
    [ Constant : int ]

$GL_MAP_STENCIL = GL_MAP_STENCIL
    [ Constant : int ]

$GL_INDEX_SHIFT = GL_INDEX_SHIFT
    [ Constant : int ]

$GL_INDEX_OFFSET = GL_INDEX_OFFSET
    [ Constant : int ]

$GL_RED_SCALE = GL_RED_SCALE
    [ Constant : int ]

$GL_RED_BIAS = GL_RED_BIAS
    [ Constant : int ]

$GL_GREEN_SCALE = GL_GREEN_SCALE
    [ Constant : int ]

$GL_GREEN_BIAS = GL_GREEN_BIAS
    [ Constant : int ]

$GL_BLUE_SCALE = GL_BLUE_SCALE
    [ Constant : int ]

$GL_BLUE_BIAS = GL_BLUE_BIAS
    [ Constant : int ]

$GL_ALPHA_SCALE = GL_ALPHA_SCALE
    [ Constant : int ]

$GL_ALPHA_BIAS = GL_ALPHA_BIAS
    [ Constant : int ]

$GL_DEPTH_SCALE = GL_DEPTH_SCALE
    [ Constant : int ]

$GL_DEPTH_BIAS = GL_DEPTH_BIAS
    [ Constant : int ]
```

```
$GL_PIXEL_MAP_S_TO_S_SIZE = GL_PIXEL_MAP_S_TO_S_SIZE
    [ Constant : int ]

$GL_PIXEL_MAP_I_TO_I_SIZE = GL_PIXEL_MAP_I_TO_I_SIZE
    [ Constant : int ]

$GL_PIXEL_MAP_I_TO_R_SIZE = GL_PIXEL_MAP_I_TO_R_SIZE
    [ Constant : int ]

$GL_PIXEL_MAP_I_TO_G_SIZE = GL_PIXEL_MAP_I_TO_G_SIZE
    [ Constant : int ]

$GL_PIXEL_MAP_I_TO_B_SIZE = GL_PIXEL_MAP_I_TO_B_SIZE
    [ Constant : int ]

$GL_PIXEL_MAP_I_TO_A_SIZE = GL_PIXEL_MAP_I_TO_A_SIZE
    [ Constant : int ]

$GL_PIXEL_MAP_R_TO_R_SIZE = GL_PIXEL_MAP_R_TO_R_SIZE
    [ Constant : int ]

$GL_PIXEL_MAP_G_TO_G_SIZE = GL_PIXEL_MAP_G_TO_G_SIZE
    [ Constant : int ]

$GL_PIXEL_MAP_B_TO_B_SIZE = GL_PIXEL_MAP_B_TO_B_SIZE
    [ Constant : int ]

$GL_PIXEL_MAP_A_TO_A_SIZE = GL_PIXEL_MAP_A_TO_A_SIZE
    [ Constant : int ]

$GL_PIXEL_MAP_S_TO_S = GL_PIXEL_MAP_S_TO_S
    [ Constant : int ]

$GL_PIXEL_MAP_I_TO_I = GL_PIXEL_MAP_I_TO_I
    [ Constant : int ]

$GL_PIXEL_MAP_I_TO_R = GL_PIXEL_MAP_I_TO_R
    [ Constant : int ]

$GL_PIXEL_MAP_I_TO_G = GL_PIXEL_MAP_I_TO_G
    [ Constant : int ]

$GL_PIXEL_MAP_I_TO_B = GL_PIXEL_MAP_I_TO_B
    [ Constant : int ]

$GL_PIXEL_MAP_I_TO_A = GL_PIXEL_MAP_I_TO_A
    [ Constant : int ]

$GL_PIXEL_MAP_R_TO_R = GL_PIXEL_MAP_R_TO_R
    [ Constant : int ]

$GL_PIXEL_MAP_G_TO_G = GL_PIXEL_MAP_G_TO_G
    [ Constant : int ]

$GL_PIXEL_MAP_B_TO_B = GL_PIXEL_MAP_B_TO_B
    [ Constant : int ]
```

```
$GL_PIXEL_MAP_A_TO_A = GL_PIXEL_MAP_A_TO_A
    [ Constant : int ]

$GL_PACK_ALIGNMENT = GL_PACK_ALIGNMENT
    [ Constant : int ]

$GL_PACK_LSB_FIRST = GL_PACK_LSB_FIRST
    [ Constant : int ]

$GL_PACK_ROW_LENGTH = GL_PACK_ROW_LENGTH
    [ Constant : int ]

$GL_PACK_SKIP_PIXELS = GL_PACK_SKIP_PIXELS
    [ Constant : int ]

$GL_PACK_SKIP_ROWS = GL_PACK_SKIP_ROWS
    [ Constant : int ]

$GL_PACK_SWAP_BYTES = GL_PACK_SWAP_BYTES
    [ Constant : int ]

$GL_UNPACK_ALIGNMENT = GL_UNPACK_ALIGNMENT
    [ Constant : int ]

$GL_UNPACK_LSB_FIRST = GL_UNPACK_LSB_FIRST
    [ Constant : int ]

$GL_UNPACK_ROW_LENGTH = GL_UNPACK_ROW_LENGTH
    [ Constant : int ]

$GL_UNPACK_SKIP_PIXELS = GL_UNPACK_SKIP_PIXELS
    [ Constant : int ]

$GL_UNPACK_SKIP_ROWS = GL_UNPACK_SKIP_ROWS
    [ Constant : int ]

$GL_UNPACK_SWAP_BYTES = GL_UNPACK_SWAP_BYTES
    [ Constant : int ]

$GL_ZOOM_X = GL_ZOOM_X
    [ Constant : int ]

$GL_ZOOM_Y = GL_ZOOM_Y
    [ Constant : int ]

$GL_TEXTURE_ENV = GL_TEXTURE_ENV
    [ Constant : int ]

$GL_TEXTURE_ENV_MODE = GL_TEXTURE_ENV_MODE
    [ Constant : int ]

$GL_TEXTURE_1D = GL_TEXTURE_1D
    [ Constant : int ]

$GL_TEXTURE_2D = GL_TEXTURE_2D
    [ Constant : int ]
```

```
$GL_TEXTURE_WRAP_S = GL_TEXTURE_WRAP_S
    [ Constant : int ]

$GL_TEXTURE_WRAP_T = GL_TEXTURE_WRAP_T
    [ Constant : int ]

$GL_TEXTURE_MAG_FILTER = GL_TEXTURE_MAG_FILTER
    [ Constant : int ]

$GL_TEXTURE_MIN_FILTER = GL_TEXTURE_MIN_FILTER
    [ Constant : int ]

$GL_TEXTURE_ENV_COLOR = GL_TEXTURE_ENV_COLOR
    [ Constant : int ]

$GL_TEXTURE_GEN_S = GL_TEXTURE_GEN_S
    [ Constant : int ]

$GL_TEXTURE_GEN_T = GL_TEXTURE_GEN_T
    [ Constant : int ]

$GL_TEXTURE_GEN_MODE = GL_TEXTURE_GEN_MODE
    [ Constant : int ]

$GL_TEXTURE_BORDER_COLOR = GL_TEXTURE_BORDER_COLOR
    [ Constant : int ]

$GL_TEXTURE_WIDTH = GL_TEXTURE_WIDTH
    [ Constant : int ]

$GL_TEXTURE_HEIGHT = GL_TEXTURE_HEIGHT
    [ Constant : int ]

$GL_TEXTURE_BORDER = GL_TEXTURE_BORDER
    [ Constant : int ]

$GL_TEXTURE_COMPONENTS = GL_TEXTURE_COMPONENTS
    [ Constant : int ]

$GL_NEAREST_MIPMAP_NEAREST = GL_NEAREST_MIPMAP_NEAREST
    [ Constant : int ]

$GL_NEAREST_MIPMAP_LINEAR = GL_NEAREST_MIPMAP_LINEAR
    [ Constant : int ]

$GL_LINEAR_MIPMAP_NEAREST = GL_LINEAR_MIPMAP_NEAREST
    [ Constant : int ]

$GL_LINEAR_MIPMAP_LINEAR = GL_LINEAR_MIPMAP_LINEAR
    [ Constant : int ]

$GL_OBJECT_LINEAR = GL_OBJECT_LINEAR
    [ Constant : int ]

$GL_OBJECT_PLANE = GL_OBJECT_PLANE
    [ Constant : int ]
```

```
$GL_EYE_LINEAR = GL_EYE_LINEAR
    [ Constant : int ]

$GL_EYE_PLANE = GL_EYE_PLANE
    [ Constant : int ]

$GL_SPHERE_MAP = GL_SPHERE_MAP
    [ Constant : int ]

$GL_DECAL = GL_DECAL
    [ Constant : int ]

$GL_MODULATE = GL_MODULATE
    [ Constant : int ]

$GL_NEAREST = GL_NEAREST
    [ Constant : int ]

$GL_REPEAT = GL_REPEAT
    [ Constant : int ]

$GL_CLAMP = GL_CLAMP
    [ Constant : int ]

$GL_S = GL_S
    [ Constant : int ]

$GL_T = GL_T
    [ Constant : int ]

$GL_R = GL_R
    [ Constant : int ]

$GL_Q = GL_Q
    [ Constant : int ]

$GL_TEXTURE_GEN_R = GL_TEXTURE_GEN_R
    [ Constant : int ]

$GL_TEXTURE_GEN_Q = GL_TEXTURE_GEN_Q
    [ Constant : int ]

$GL_VENDOR = GL_VENDOR
    [ Constant : int ]

$GL_RENDERER = GL_RENDERER
    [ Constant : int ]

$GL_VERSION = GL_VERSION
    [ Constant : int ]

$GL_EXTENSIONS = GL_EXTENSIONS
    [ Constant : int ]

$GL_INVALID_VALUE = GL_INVALID_VALUE
    [ Constant : int ]
```

```
$GL_INVALID_ENUM = GL_INVALID_ENUM
    [ Constant : int ]

$GL_INVALID_OPERATION = GL_INVALID_OPERATION
    [ Constant : int ]

$GL_STACK_OVERFLOW = GL_STACK_OVERFLOW
    [ Constant : int ]

$GL_STACK_UNDERFLOW = GL_STACK_UNDERFLOW
    [ Constant : int ]

$GL_OUT_OF_MEMORY = GL_OUT_OF_MEMORY
    [ Constant : int ]

$GL_VERTEX_ARRAY_EXT = GL_VERTEX_ARRAY_EXT
    [ Constant : int ]

$GL_NORMAL_ARRAY_EXT = GL_NORMAL_ARRAY_EXT
    [ Constant : int ]

$GL_COLOR_ARRAY_EXT = GL_COLOR_ARRAY_EXT
    [ Constant : int ]

$GL_INDEX_ARRAY_EXT = GL_INDEX_ARRAY_EXT
    [ Constant : int ]

$GL_TEXTURE_COORD_ARRAY_EXT = GL_TEXTURE_COORD_ARRAY_EXT
    [ Constant : int ]

$GL_EDGE_FLAG_ARRAY_EXT = GL_EDGE_FLAG_ARRAY_EXT
    [ Constant : int ]

$GL_VERTEX_ARRAY_SIZE_EXT = GL_VERTEX_ARRAY_SIZE_EXT
    [ Constant : int ]

$GL_VERTEX_ARRAY_TYPE_EXT = GL_VERTEX_ARRAY_TYPE_EXT
    [ Constant : int ]

$GL_VERTEX_ARRAY_STRIDE_EXT = GL_VERTEX_ARRAY_STRIDE_EXT
    [ Constant : int ]

$GL_VERTEX_ARRAY_COUNT_EXT = GL_VERTEX_ARRAY_COUNT_EXT
    [ Constant : int ]

$GL_NORMAL_ARRAY_TYPE_EXT = GL_NORMAL_ARRAY_TYPE_EXT
    [ Constant : int ]

$GL_NORMAL_ARRAY_STRIDE_EXT = GL_NORMAL_ARRAY_STRIDE_EXT
    [ Constant : int ]

$GL_NORMAL_ARRAY_COUNT_EXT = GL_NORMAL_ARRAY_COUNT_EXT
    [ Constant : int ]

$GL_COLOR_ARRAY_SIZE_EXT = GL_COLOR_ARRAY_SIZE_EXT
    [ Constant : int ]
```

```
$GL_COLOR_ARRAY_TYPE_EXT = GL_COLOR_ARRAY_TYPE_EXT
    [ Constant : int ]

$GL_COLOR_ARRAY_STRIDE_EXT = GL_COLOR_ARRAY_STRIDE_EXT
    [ Constant : int ]

$GL_COLOR_ARRAY_COUNT_EXT = GL_COLOR_ARRAY_COUNT_EXT
    [ Constant : int ]

$GL_INDEX_ARRAY_TYPE_EXT = GL_INDEX_ARRAY_TYPE_EXT
    [ Constant : int ]

$GL_INDEX_ARRAY_STRIDE_EXT = GL_INDEX_ARRAY_STRIDE_EXT
    [ Constant : int ]

$GL_INDEX_ARRAY_COUNT_EXT = GL_INDEX_ARRAY_COUNT_EXT
    [ Constant : int ]

$GL_TEXTURE_COORD_ARRAY_SIZE_EXT = GL_TEXTURE_COORD_ARRAY_SIZE_EXT
    [ Constant : int ]

$GL_TEXTURE_COORD_ARRAY_TYPE_EXT = GL_TEXTURE_COORD_ARRAY_TYPE_EXT
    [ Constant : int ]

$GL_TEXTURE_COORD_ARRAY_STRIDE_EXT = GL_TEXTURE_COORD_ARRAY_STRIDE_EXT
    [ Constant : int ]

$GL_TEXTURE_COORD_ARRAY_COUNT_EXT = GL_TEXTURE_COORD_ARRAY_COUNT_EXT
    [ Constant : int ]

$GL_EDGE_FLAG_ARRAY_STRIDE_EXT = GL_EDGE_FLAG_ARRAY_STRIDE_EXT
    [ Constant : int ]

$GL_EDGE_FLAG_ARRAY_COUNT_EXT = GL_EDGE_FLAG_ARRAY_COUNT_EXT
    [ Constant : int ]

$GL_VERTEX_ARRAY_POINTER_EXT = GL_VERTEX_ARRAY_POINTER_EXT
    [ Constant : int ]

$GL_NORMAL_ARRAY_POINTER_EXT = GL_NORMAL_ARRAY_POINTER_EXT
    [ Constant : int ]

$GL_COLOR_ARRAY_POINTER_EXT = GL_COLOR_ARRAY_POINTER_EXT
    [ Constant : int ]

$GL_INDEX_ARRAY_POINTER_EXT = GL_INDEX_ARRAY_POINTER_EXT
    [ Constant : int ]

$GL_TEXTURE_COORD_ARRAY_POINTER_EXT = GL_TEXTURE_COORD_ARRAY_POINTER_EXT
    [ Constant : int ]

$GL_EDGE_FLAG_ARRAY_POINTER_EXT = GL_EDGE_FLAG_ARRAY_POINTER_EXT
    [ Constant : int ]

$GL_NO_ERROR = (GL_FALSE)
    [ Constant : int ]
```

```
$GL_CURRENT_BIT = GL_CURRENT_BIT
    [ Constant : int ]

$GL_POINT_BIT = GL_POINT_BIT
    [ Constant : int ]

$GL_LINE_BIT = GL_LINE_BIT
    [ Constant : int ]

$GL_POLYGON_BIT = GL_POLYGON_BIT
    [ Constant : int ]

$GL_POLYGON_STIPPLE_BIT = GL_POLYGON_STIPPLE_BIT
    [ Constant : int ]

$GL_PIXEL_MODE_BIT = GL_PIXEL_MODE_BIT
    [ Constant : int ]

$GL_LIGHTING_BIT = GL_LIGHTING_BIT
    [ Constant : int ]

$GL_FOG_BIT = GL_FOG_BIT
    [ Constant : int ]

$GL_DEPTH_BUFFER_BIT = GL_DEPTH_BUFFER_BIT
    [ Constant : int ]

$GL_ACCUM_BUFFER_BIT = GL_ACCUM_BUFFER_BIT
    [ Constant : int ]

$GL_STENCIL_BUFFER_BIT = GL_STENCIL_BUFFER_BIT
    [ Constant : int ]

$GL_VIEWPORT_BIT = GL_VIEWPORT_BIT
    [ Constant : int ]

$GL_TRANSFORM_BIT = GL_TRANSFORM_BIT
    [ Constant : int ]

$GL_ENABLE_BIT = GL_ENABLE_BIT
    [ Constant : int ]

$GL_COLOR_BUFFER_BIT = GL_COLOR_BUFFER_BIT
    [ Constant : int ]

$GL_HINT_BIT = GL_HINT_BIT
    [ Constant : int ]

$GL_EVAL_BIT = GL_EVAL_BIT
    [ Constant : int ]

$GL_LIST_BIT = GL_LIST_BIT
    [ Constant : int ]

$GL_TEXTURE_BIT = GL_TEXTURE_BIT
    [ Constant : int ]
```

```
$GL_SCISSOR_BIT = GL_SCISSOR_BIT
    [ Constant : int ]

$GL_ALL_ATTRIB_BITS = GL_ALL_ATTRIB_BITS
    [ Constant : int ]

$GL_EXT_blend_color = 1
    [ Constant : int ]

$GL_EXT_blend_logic_op = 1
    [ Constant : int ]

$GL_EXT_blend_minmax = 1
    [ Constant : int ]

$GL_EXT_blend_subtract = 1
    [ Constant : int ]

$GL_EXT_polygon_offset = 1
    [ Constant : int ]

$GL_EXT_vertex_array = 1
    [ Constant : int ]

$GL_MESA_window_pos = 1
    [ Constant : int ]

$GLU_VERSION_1_1 = 1
    [ Constant : int ]

$GLU_TRUE = (GL_TRUE)
    [ Constant : int ]

$GLU_FALSE = (GL_FALSE)
    [ Constant : int ]

$GLU_SMOOTH = GLU_SMOOTH
    [ Constant : int ]

$GLU_FLAT = GLU_FLAT
    [ Constant : int ]

$GLU_NONE = GLU_NONE
    [ Constant : int ]

$GLU_POINT = GLU_POINT
    [ Constant : int ]

$GLU_LINE = GLU_LINE
    [ Constant : int ]

$GLU_FILL = GLU_FILL
    [ Constant : int ]

$GLU_SILHOUETTE = GLU_SILHOUETTE
    [ Constant : int ]
```

```
$GLU_OUTSIDE = GLU_OUTSIDE
    [ Constant : int ]

$GLU_INSIDE = GLU_INSIDE
    [ Constant : int ]

$GLU_BEGIN = GLU_BEGIN
    [ Constant : int ]

$GLU_VERTEX = GLU_VERTEX
    [ Constant : int ]

$GLU_END = GLU_END
    [ Constant : int ]

$GLU_ERROR = GLU_ERROR
    [ Constant : int ]

$GLU_EDGE_FLAG = GLU_EDGE_FLAG
    [ Constant : int ]

$GLU_CW = GLU_CW
    [ Constant : int ]

$GLU_CCW = GLU_CCW
    [ Constant : int ]

$GLU_INTERIOR = GLU_INTERIOR
    [ Constant : int ]

$GLU_EXTERIOR = GLU_EXTERIOR
    [ Constant : int ]

$GLU_UNKNOWN = GLU_UNKNOWN
    [ Constant : int ]

$GLU_TESS_ERROR1 = GLU_TESS_ERROR1
    [ Constant : int ]
    missing gluEndPolygon

$GLU_TESS_ERROR2 = GLU_TESS_ERROR2
    [ Constant : int ]
    missing gluBeginPolygon

$GLU_TESS_ERROR3 = GLU_TESS_ERROR3
    [ Constant : int ]
    misoriented contour

$GLU_TESS_ERROR4 = GLU_TESS_ERROR4
    [ Constant : int ]
    vertex/edge intersection

$GLU_TESS_ERROR5 = GLU_TESS_ERROR5
    [ Constant : int ]
    misoriented or self-intersecting loops
```

```
$GLU_TESS_ERROR6 = GLU_TESS_ERROR6
    [ Constant : int ]
    coincident vertices

$GLU_TESS_ERROR7 = GLU_TESS_ERROR7
    [ Constant : int ]
    all vertices collinear

$GLU_TESS_ERROR8 = GLU_TESS_ERROR8
    [ Constant : int ]
    GLU_TESS_ERROR9 = 100159, /* not coplanar contours */

$GLU_AUTO_LOAD_MATRIX = GLU_AUTO_LOAD_MATRIX
    [ Constant : int ]

$GLU_CULLING = GLU_CULLING
    [ Constant : int ]

$GLU_PARAMETRIC_TOLERANCE = GLU_PARAMETRIC_TOLERANCE
    [ Constant : int ]

$GLU_SAMPLING_TOLERANCE = GLU_SAMPLING_TOLERANCE
    [ Constant : int ]

$GLU_DISPLAY_MODE = GLU_DISPLAY_MODE
    [ Constant : int ]

$GLU_SAMPLING_METHOD = GLU_SAMPLING_METHOD
    [ Constant : int ]

$GLU_U_STEP = GLU_U_STEP
    [ Constant : int ]

$GLU_V_STEP = GLU_V_STEP
    [ Constant : int ]

$GLU_PATH_LENGTH = GLU_PATH_LENGTH
    [ Constant : int ]

$GLU_PARAMETRIC_ERROR = GLU_PARAMETRIC_ERROR
    [ Constant : int ]

$GLU_DOMAIN_DISTANCE = GLU_DOMAIN_DISTANCE
    [ Constant : int ]

$GLU_MAP1_TRIM_2 = GLU_MAP1_TRIM_2
    [ Constant : int ]

$GLU_MAP1_TRIM_3 = GLU_MAP1_TRIM_3
    [ Constant : int ]

$GLU_OUTLINE_POLYGON = GLU_OUTLINE_POLYGON
    [ Constant : int ]

$GLU_OUTLINE_PATCH = GLU_OUTLINE_PATCH
    [ Constant : int ]
```

```
$GLU_NURBS_ERROR1 = GLU_NURBS_ERROR1
    [ Constant : int ]
    spline order un-supported

$GLU_NURBS_ERROR2 = GLU_NURBS_ERROR2
    [ Constant : int ]
    too few knots

$GLU_NURBS_ERROR3 = GLU_NURBS_ERROR3
    [ Constant : int ]
    valid knot range is empty

$GLU_NURBS_ERROR4 = GLU_NURBS_ERROR4
    [ Constant : int ]
    decreasing knot sequence

$GLU_NURBS_ERROR5 = GLU_NURBS_ERROR5
    [ Constant : int ]
    knot multiplicity > spline order

$GLU_NURBS_ERROR6 = GLU_NURBS_ERROR6
    [ Constant : int ]
    endcurve() must follow bgncurve()

$GLU_NURBS_ERROR7 = GLU_NURBS_ERROR7
    [ Constant : int ]
    bgncurve() must precede endcurve()

$GLU_NURBS_ERROR8 = GLU_NURBS_ERROR8
    [ Constant : int ]
    ctrlarray or knot vector is NULL

$GLU_NURBS_ERROR9 = GLU_NURBS_ERROR9
    [ Constant : int ]
    can't draw pwlcurves

$GLU_NURBS_ERROR10 = GLU_NURBS_ERROR10
    [ Constant : int ]
    missing gluNurbsCurve()

$GLU_NURBS_ERROR11 = GLU_NURBS_ERROR11
    [ Constant : int ]
    missing gluNurbsSurface()

$GLU_NURBS_ERROR12 = GLU_NURBS_ERROR12
    [ Constant : int ]
    endtrim() must precede endsurface()

$GLU_NURBS_ERROR13 = GLU_NURBS_ERROR13
    [ Constant : int ]
    bgnsurface() must precede endsurface()

$GLU_NURBS_ERROR14 = GLU_NURBS_ERROR14
    [ Constant : int ]
    curve of improper type passed as trim curve

$GLU_NURBS_ERROR15 = GLU_NURBS_ERROR15
```

```
[ Constant : int ]
bgnsurface() must precede bgntrim()

$GLU_NURBS_ERROR16 = GLU_NURBS_ERROR16
[ Constant : int ]
endtrim() must follow bgntrim()

$GLU_NURBS_ERROR17 = GLU_NURBS_ERROR17
[ Constant : int ]
bgntrim() must precede endtrim()

$GLU_NURBS_ERROR18 = GLU_NURBS_ERROR18
[ Constant : int ]
invalid or missing trim curve

$GLU_NURBS_ERROR19 = GLU_NURBS_ERROR19
[ Constant : int ]
bgntrim() must precede pwlcurve()

$GLU_NURBS_ERROR20 = GLU_NURBS_ERROR20
[ Constant : int ]
pwlcurve referenced twice

$GLU_NURBS_ERROR21 = GLU_NURBS_ERROR21
[ Constant : int ]
pwlcurve and nurbscurve mixed

$GLU_NURBS_ERROR22 = GLU_NURBS_ERROR22
[ Constant : int ]
improper usage of trim data type

$GLU_NURBS_ERROR23 = GLU_NURBS_ERROR23
[ Constant : int ]
nurbscurve referenced twice

$GLU_NURBS_ERROR24 = GLU_NURBS_ERROR24
[ Constant : int ]
nurbscurve and pwlcurve mixed

$GLU_NURBS_ERROR25 = GLU_NURBS_ERROR25
[ Constant : int ]
nurbssurface referenced twice

$GLU_NURBS_ERROR26 = GLU_NURBS_ERROR26
[ Constant : int ]
invalid property

$GLU_NURBS_ERROR27 = GLU_NURBS_ERROR27
[ Constant : int ]
endsurface() must follow bgnsurface()

$GLU_NURBS_ERROR28 = GLU_NURBS_ERROR28
[ Constant : int ]
intersecting or misoriented trim curves

$GLU_NURBS_ERROR29 = GLU_NURBS_ERROR29
[ Constant : int ]
```

```

    intersecting trim curves

$GLU_NURBS_ERROR30 = GLU_NURBS_ERROR30
    [ Constant : int ]
    UNUSED

$GLU_NURBS_ERROR31 = GLU_NURBS_ERROR31
    [ Constant : int ]
    unconnected trim curves

$GLU_NURBS_ERROR32 = GLU_NURBS_ERROR32
    [ Constant : int ]
    unknown knot error

$GLU_NURBS_ERROR33 = GLU_NURBS_ERROR33
    [ Constant : int ]
    negative vertex count encountered

$GLU_NURBS_ERROR34 = GLU_NURBS_ERROR34
    [ Constant : int ]
    negative byte-stride

$GLU_NURBS_ERROR35 = GLU_NURBS_ERROR35
    [ Constant : int ]
    unknown type descriptor

$GLU_NURBS_ERROR36 = GLU_NURBS_ERROR36
    [ Constant : int ]
    null control point reference

$GLU_NURBS_ERROR37 = GLU_NURBS_ERROR37
    [ Constant : int ]
    duplicate point on pwlcurve

$GLU_INVALID_ENUM = GLU_INVALID_ENUM
    [ Constant : int ]

$GLU_INVALID_VALUE = GLU_INVALID_VALUE
    [ Constant : int ]

$GLU_OUT_OF_MEMORY = GLU_OUT_OF_MEMORY
    [ Constant : int ]
    GLU_INCOMPATIBLE_GL_VERSION = 100903,

$GLU_VERSION = GLU_VERSION
    [ Constant : int ]

$GLU_EXTENSIONS = GLU_EXTENSIONS
    [ Constant : int ]

gluLookAt eyex eyey eyez centerx centery centerz upx upy upz
    [ returns void ]

gluOrtho2D left right bottom top
    [ returns void ]

gluPerspective fovy aspect zNear zFar

```

```
[ returns void ]

gluPickMatrix x y width height viewport
[ returns void ]

gluProject objx objy objz modelMatrix projMatrix viewport winx winy winz
[ returns GLint ]

gluUnProject winx winy winz modelMatrix projMatrix viewport objx objy objz
[ returns GLint ]

gluErrorString errorCode
[ returns GLubyte * ]

gluScaleImage format widthin heightin typein datain widthout heightout typeout
dataout
[ returns GLint ]

gluBuild1DMipmaps target components width format type data
[ returns GLint ]

gluBuild2DMipmaps target components width height format type data
[ returns GLint ]

gluNewQuadric
[ returns GLUquadricObj * ]

gluDeleteQuadric state
[ returns void ]

gluQuadricDrawStyle quadObject drawStyle
[ returns void ]

gluQuadricOrientation quadObject orientation
[ returns void ]

gluQuadricNormals quadObject normals
[ returns void ]

gluQuadricTexture quadObject textureCoords
[ returns void ]

gluCylinder qobj baseRadius topRadius height slices stacks
[ returns void ]

gluSphere qobj radius slices stacks
[ returns void ]

gluDisk qobj innerRadius outerRadius slices loops
[ returns void ]

gluPartialDisk qobj innerRadius outerRadius slices loops startAngle sweepAngle
[ returns void ]

gluNewNurbsRenderer
[ returns GLUnurbsObj * ]
```

```
gluDeleteNurbsRenderer nobj
    [ returns void ]

gluLoadSamplingMatrices nobj modelMatrix projMatrix viewport
    [ returns void ]

gluNurbsProperty nobj property value
    [ returns void ]

gluGetNurbsProperty nobj property value
    [ returns void ]

gluBeginCurve nobj
    [ returns void ]

gluEndCurve nobj
    [ returns void ]

gluNurbsCurve nobj nknots knot stride ctlarray order type
    [ returns void ]

gluBeginSurface nobj
    [ returns void ]

gluEndSurface nobj
    [ returns void ]

gluNurbsSurface nobj sknot_count sknot tknot_count tknot s_stride t_stride
ctlarray sorder torder type
    [ returns void ]

gluBeginTrim nobj
    [ returns void ]

gluEndTrim nobj
    [ returns void ]

gluPwlCurve nobj count array stride type
    [ returns void ]

gluNewTess
    [ returns GLUTriangulatorObj * ]

gluDeleteTess tobj
    [ returns void ]

gluBeginPolygon tobj
    [ returns void ]

gluEndPolygon tobj
    [ returns void ]

gluNextContour tobj type
    [ returns void ]

gluTessVertex tobj v data
    [ returns void ]
```

gluGetString name
[returns GLubyte *]

newfv4 a b c d
[returns GLfloat *]

setfv4 fv a b c d
[returns void]

free { void * }
[returns void]

Const { int }
[returns int]

system { char * }
[returns int]

1. Array Operations

=====

array_int size
[returns int *]
Creates an integer array of size elements. Integers are the same size as the C int type.

get_int array_int index
[returns int]
Return the integer in array_int[index]

set_int array_int index ival
[returns int]
Sets array_int[index] = ival. Returns it's value so you can use this function in an expression.

array_double size
[returns double *]
Creates an array of double precision floats.

get_double array_double index
[returns double]
Return the double in array_double[index]

set_double array_double index dval
[returns double]
Sets array_double[index] = dval. Returns it's value

array_float size
[returns float *]
Creates an array of float precision floats.

get_float array_float index
[returns float]
Return the float in array_float[index]

set_float array_float index dval

```
[ returns float ]
Sets array_float[index] = dval. Returns it's value

array_byte nbytes
[ returns byte * ]
Creates a byte array. A byte is defined as an unsigned char.

get_byte array_byte index
[ returns byte ]
Returns array_byte[index]

set_byte array_byte index val
[ returns byte ]
Sets array_byte[index] = val. Returns it's new value

array_string size
[ returns char ** ]
Creates a string array. A string is array is the same as char **
in C

get_string array_string index
[ returns char * ]
Returns character string in array_string[index]. If that entry is
NULL, returns an empty string

set_string array_string index string
[ returns char * ]
Sets array_string[index] = string. string must be a 0-terminated
ASCII string. If string is "" then this will create a NULL pointer.
```