NAME

XGL_CTX_PLANE_MASK – defines the pixel plane mask

SYNOPSIS

#include <xgl/xgl.h>

Xgl_ctx ctx;

xgl_object_set(ctx, XGL_CTX_PLANE_MASK, Xgl_usgn32, 0);
xgl_object_get(ctx, XGL_CTX_PLANE_MASK, Xgl_usgn32 *);

DESCRIPTION

This attribute specifies the enable mask for writing to pixel bit planes. Each bit in the mask corresponds to a bit plane of the pixel. For example, an 8-bit-deep frame buffer would have 8 bit planes and 8 corresponding bits in XGL_CTX_PLANE_MASK. If a bit is **0** in the plane mask, writing to that plane is disabled. If a bit is **1**, writing to the plane is typically enabled, although contingent upon the restrictions described below.

Using a plane mask is well defined for indexed Rasters on indexed hardware. With other combinations, the plane mask may not work as expected (see NOTES below). In general, the hardware raster pixel values are masked with the source pixel in the hardware format.

For each bit in each pixel of the Destination Raster, the following expression defines how the pixel color is computed using the plane mask and the color map:

((rop(*src*,*dst*) AND (plane_mask AND plane_mask_mask)) OR (*dst* AND (NOT (plane_mask AND plane_mask_mask)))

where:
src is the source pixel to be rendered
dst is the pixel value in the frame buffer
plane_mask is the value of XGL_CTX_PLANE_MASK
rop is the ROP defined by XGL_CTX_ROP
plane_mask_mask is one of the following cases:

- If the device is NOT a window raster, or if the application manages itself the X colormap (i.e. it has set **XGL_CMAP_NAME**(3) of the Color Map object associated with the device that is associated with the context), then the value used for *plane_mask_mask* is -1.
- If the device is a window raster, and XGL manipulates the X colormap on behalf of the application (ie: the application has NOT set **XGL_CMAP_NAME**(3) of the Color Map object associated with the device that is associated with the context), then *plane_mask_mask* is the set of X pixel bits that XGL has allocated from X.

This is done in hardware for accelerated window rasters.

The default value is (Xgl_usgn32)-1 (all bits set to 1).

This attribute is pushed by **xgl_context_push**(3)**.**

SEE ALSO

xgl_object_set(3)
xgl_object_get(3)
xgl_context_push(3)

XGL_CMAP_NAME(3)
XGL_CTX_ROP(3)

NOTE

XGL_CTX_PLANE_MASK(3) is not supported for the following configurations:

RGB on 8-bit rasters
RGB on memory rasters

For accelerated RGB devices, refer to your accelerator guide.