NAME

XGL_CTX_VDC_ORIENTATION – defines the orientation of Virtual Device Coordinate (VDC) space

SYNOPSIS

#include <xgl/xgl.h>

Xgl_ctx ctx;

xgl_object_set(ctx, XGL_CTX_VDC_ORIENTATION, Xgl_vdc_orientation, 0);
xgl_object_get(ctx, XGL_CTX_VDC_ORIENTATION, Xgl_vdc_orientation *);

DESCRIPTION

This attribute defines how virtual device coordinate (VDC) space is related to device coordinate (DC) space. DC space is the final coordinate space in the XGL pipeline. Essentially, the operator of the application program views DC space on the workstation screen. It is a right-handed coordinate space with the positive *x*-axis going from left to right, the positive *y*-axis going from top to bottom, and, for 3D, the positive *z*-axis going into the screen.

Since the VDC mapping (described in **XGL_CTX_VDC_MAP**(3)) only maps a rectangular region of VDC space to a rectangular region in DC, the orientation of VDC is the same as DC. Some applications, however, prefer to have a VDC space with the *y*-axis going from bottom to top. The attribute **XGL_CTX_VDC_ORIENTATION**(3) provides XGL the capability to change the orientation of VDC space.

VDC space is always right-handed; it can have the following orientations:

XGL_Y_DOWN_Z_AWAY
: The *x*-axis points to the right, the *y*-axis goes down, and the *z*-axis points away from the operator.

XGL_Y_UP_Z_TOWARD
: The *x*-axis points to the right, the *y*-axis goes up, and the *z*-axis points toward the operator.

The XGL_CTX_VDC_ORIENTATION attribute controls the interpretation of *up*, *down*, *near*, and *far* for other XGL attributes. The application must set the following attributes in accordance with the XGL_CTX_VDC_ORIENTATION to control what the operator sees:

XGL_CTX_GLOBAL_MODEL_TRANS
XGL_CTX_LOCAL_MODEL_TRANS
XGL_CTX_VIEW_TRANS
XGL_CTX_VIEW_CLIP_BOUNDS
XGL_CTX_VDC_MAP
XGL_CTX_VDC_WINDOW

The default value is XGL_Y_DOWN_Z_AWAY.

This attribute is not pushed by **xgl_context_push**(3)**.**

SEE ALSO

xgl_object_set(3)
xgl_object_get(3)
XGL_CTX_GLOBAL_MODEL_TRANS(3)
XGL_CTX_LOCAL_MODEL_TRANS(3)
XGL_CTX_VDC_MAP(3)
XGL_CTX_VDC_WINDOW(3)
XGL_CTX_VIEW_TRANS(3)
XGL_CTX_VIEW_CLIP_BOUNDS(3)