NAME

XGL_LPAT_STYLE,
XGL_LPAT_BALANCED_DASH – define Line Pattern style and Line Pattern balancing

SYNOPSIS

```
#include <xgl/xgl.h>

Xgl_lpat            lpat;

xgl_object_set(lpat, XGL_LPAT_STYLE, Xgl_lpat_style, 0);
xgl_object_set(lpat, XGL_LPAT_BALANCED_DASH, Xgl_lpat_bal_dash, 0);

xgl_object_get(lpat, XGL_LPAT_STYLE, Xgl_lpat_style *);
xgl_object_get(lpat, XGL_LPAT_BALANCED_DASH, Xgl_lpat_bal_dash *);
```

DESCRIPTION

XGL_LPAT_STYLE(3) specifies the Line Pattern style. The following enumerated values of *Xgl_lpat_style* define the options:

XGL_LPAT_FIXED_OFFSET

XGL applies the fixed Line Pattern offset of *lpat* given by **XGL_LPAT_OFFSET**(3) when rendering polylines, open arcs, NURBS curves, or polygon edges. For each line segment, the Line Pattern carries over from the segment to the next adjacent segment.

XGL_LPAT_BALANCED_SEGMENT

For each segment of a polyline, XGL balances the Line Pattern with respect to the midpoint of the segment before clipping. The balancing is independent of a segment's adjacent segments. This line pattern style is applicable only to polylines and not other primitives. If an application tries to use this line pattern style with open arcs, NURBS curves, or polygon edges, XGL will render them with the value XGL_LPAT_FIXED_OFFSET.

XGL_LPAT_BALANCED_DASH takes effect only when XGL_LPAT_STYLE has the value XGL_LPAT_BALANCED_SEGMENT. It allows an application to select the first or second dash in the Line Pattern around which to balance the Line Pattern. In the following descriptions, let the Line Pattern data consist of the dashes with lengths $D[0]$, $D[1]$, ..., $D[n-1]$.

The enumerated values of *Xgl_lpat_bal_dash* define the following options:

XGL_LPAT_BAL_DASH_0

The center of the first dash with length $D[0]$ coincides with the midpoint of the segment. The Line Pattern will be symmetric with respect to this midpoint if n is even and one of the following two conditions holds: (1) $n = 2$, or (2) $n > 2$ and $D[1] = D[n-1]$, $D[2] = D[n-2]$, ..., and $D[(n/2)-1] = D[(n/2)+1]$.

XGL_LPAT_BAL_DASH_1

The center of the second dash with length $D[1]$ coincides with the midpoint of the segment. The Line Pattern will be symmetric with respect to this midpoint if n is even and one of the following two conditions holds: (1) $n = 2$, or (2) $n > 2$ and $D[0] = D[2]$, $D[n-1] = D[3]$, ..., and $D[(n/2)+2] = D[n/2]$.

Note that if n is odd, XGL replicates the Line Pattern data once, producing an array of dash lengths twice the size of the specified array (see **XGL_LPAT_DATA**(3)). XGL ignores the value of **XGL_LPAT_OFFSET**(3) when XGL_LPAT_STYLE has the value XGL_LPAT_-

BALANCED_SEGMENT.

The default value of XGL_LPAT_STYLE is XGL_LPAT_FIXED_OFFSET.

The default value of XGL_LPAT_BALANCED_DASH is XGL_LPAT_BAL_DASH_0.

SEE ALSO

xgl_object_set(3)
xgl_object_get(3)
xgl_object_create(3)
XGL_LPAT_OFFSET(3)
XGL_LPAT_DATA(3)