NAME

glViewport − set the viewport

C SPECIFICATION

void **glViewport**(GLint *x*,
                    GLint *y*,
                    GLsizei *width*,
                    GLsizei *height*)

delim $$

PARAMETERS

x, *y*

Specify the lower left corner of the viewport rectangle, in pixels. The initial value is (0,0).

width, *height*

Specify the width and height of the viewport. When a GL context is first attached to a window, *width* and *height* are set to the dimensions of that window.

DESCRIPTION

glViewport specifies the affine transformation of x and y from normalized device coordinates to window coordinates. Let (x_{nd}, y_{nd}) be normalized device coordinates. Then the window coordinates (x_w, y_w) are computed as follows:

$$x_w ~=~ (x_{nd} + 1) \left(\frac{\text{width}}{2} \right) ~+~ \text{x}$$

$$y_w ~=~ (y_{nd} + 1) \left(\frac{\text{height}}{2} \right) ~+~ \text{y}$$

Viewport width and height are silently clamped to a range that depends on the implementation. To query this range, call **glGet** with argument **GL_MAX_VIEWPORT_DIMS**.

ERRORS

GL_INVALID_VALUE is generated if either *width* or *height* is negative.

GL_INVALID_OPERATION is generated if **glViewport** is executed between the execution of **glBegin** and the corresponding execution of **glEnd**.

ASSOCIATED GETS

glGet with argument **GL_VIEWPORT**
glGet with argument **GL_MAX_VIEWPORT_DIMS**

SEE ALSO

glDepthRange