

Object space

Model transformation matrix

World space

Viewing matrix

Eye space

Projection matrix

$-w \leq X \leq w$

Clip space

- Frustum clipping
- Perspective division ($x/w, y/w, z/w$)

$-1 \leq X \leq 1$

Normalized device space

Viewport transformation

Window space

$0 \leq x \leq width$
 $0 \leq y \leq height$
 $0 \leq z \leq 1$

ModelViewMatrix
(OpenGL)

NormalMatrix
(OpenGL)

ProjectionMatrix
(OpenGL)

ModelViewProjectionMatrix
(OpenGL)

Vertex processor

Fragment processor

