Translate: public GLTransformation

```
+ Translate(ux: GLfloat = 0.0f, uy: GLfloat = 0.0f,
            uz: GLfloat = 0.0f)
+ Translate(direction: Cartesian3&,
            distance: GLfloat)
+ setXDirectionalUnits(ux: GLfloat): GLvoid
+ setYDirectionalUnits(uy: GLfloat): GLvoid
+ setZDirectionalUnits(ux: GLfloat): GLvoid
+ <<const>> clone(): Translate*
```

Scale: public GLTransformation

```
+ Scale(sx: GLfloat = 1.0f, sy: GLfloat = 1.0f,
        sz: GLfloat = 1.0f)
+ setScalingFactors(sx: GLfloat, sy: GLfloat,
                    sz: GLfloat): GLvoid
+ <<const>> clone(): Scale*
```

Rotate: public GLTransformation

```
# _direction: Cartesian3
# _angle_in_radians: GLfloat
---
+ Rotate(direction: const Cartesian3& =
          Cartesian3(1.0, 0.0, 0.0),
          angle_in_radians: GLfloat = 0.0f)
+ setDirection(direction: const Cartesian3&):
          GLvoid
+ setAngle(angle_in_radians: GLfloat): GLvoid
+ <<const>> clone(): Rotate*
```

PerspectiveProjection: public GLTransformation

```
# _aspect: GLfloat
# _fov: GLfloat
# _f: GLfloat
# _near: GLfloat
# _far: GLfloat
---
+ PerspectiveProjection(aspect: GLfloat,
                        fov: GLfloat =
                             45.0f * DEG_TO_RADIAN,
                        near: GLfloat = 1.0f,
                        far: GLfloat = 1000.0f)
+ setAspectRatio(aspect: GLfloat): GLvoid
+ setFieldOfView(fov: GLfloat): GLvoid
+ setNearClippingPlaneDistance(near: GLfloat): GLvoid
+ setFarClippingPlaneDistance(far: GLfloat): GLvoid
+ <<const>> clone(): PerspectiveProjection*
```

OrthogonalProjection: public GLTransformation

```
# _aspect: GLfloat
# _x_min: GLfloat
# _x_max: GLfloat
# _y_min: GLfloat
# _y_max: GLfloat
---
+ OrthogonalProjection(aspect: GLfloat,
                       x_min: GLfloat, x_max: GLfloat,
                       y_min: GLfloat, y_max: GLfloat,
                       z_min: GLfloat, z_max: GLfloat)
+ setXMin(x_min: GLfloat): GLvoid
+ setXMax(x_max: GLfloat): GLvoid
+ setYMin(y_min: GLfloat): GLvoid
+ setYMax(y_max: GLfloat): GLvoid
+ setZMin(z_min: GLfloat): GLvoid
+ setZMax(z_max: GLfloat): GLvoid
+ <<const>> clone(): OrthogonalProjection*
```

LookAt: public GLTransformation

```
# _eye: Cartesian3
# _center: Cartesian3
# _up: Cartesian3
---
+ LookAt(eye: const Cartesian3&,
         center: const Cartesian3&,
         up: const Cartesian3&)
+ <<const>> clone(): LookAt*
```