

## OpenGL Transformation Matrix Example

```
glMatrixMode( GL_MODELVIEW );
```

```
glLoadIdentity();
```

Current Transformation Matrix:  $M_1 = I$

```
glRotatef(angle_in_degrees, x, y, z);
```

Current Transformation Matrix:  $M_1 = IR$

```
glPushMatrix();
```

Current Transformation Matrix:  $M_2 = IR$

$M_1 = IR$

```
glScalef(x, y, z);
```

Current Transformation Matrix:  $M_2 = IRS$

$M_1 = IR$

```
glPushMatrix();
```

Current Transformation Matrix:  $M_3 = IRS$

$M_2 = IRS$

$M_1 = IR$

```
glTranslatef(x, y, z);
```

Current Transformation Matrix:  $M_3 = IRST$

$M_2 = IRS$

$M_1 = IR$

```
glPushMatrix();
```

Current Transformation Matrix:  $M_4 = IRST$

$M_3 = IRST$

$M_2 = IRS$

$M_1 = IR$

```
glPopMatrix();
```

Current Transformation Matrix:  $M_3 = IRST$

$M_2 = IRS$

$M_1 = IR$

```
glPopMatrix();
```

Current Transformation Matrix:  $M_2 = IRS$

$M_1 = IR$

```
glPopMatrix();
```

Current Transformation Matrix:  $M_1 = IR$