Stencil Buffer Examples

Mike Bailey

Oregon State University

Using the Stencil Buffer to Create a Magic Lens
Using the Stencil Buffer to Create a Magic Lens

1. Clear the SB = 0
2. Write protect the color buffer
3. Draw a square, setting SB = 1
4. Write-enable the color buffer
5. Draw the solids wherever SB == 0
6. Draw the wireframes wherever SB == 1

Using the Stencil Buffer to Perform Polygon Capping
**Using the Stencil Buffer to Perform Polygon Capping**

1. Clear the SB = 0
2. Draw the polygons, setting SB = ~ SB
3. Draw a large gray polygon across the entire scene wherever SB ≠ 0

**Outlining Polygons the Naive Way**

1. Draw the polygons
2. Draw the edges

Z-fighting
Using the Stencil Buffer to Better Outline Polygons

Clear the entire SB = 0
for( each polygon )
{
    Draw the edges, setting SB = 1
    Draw the polygon wherever SB ! = 1
    Draw the edges, setting SB = 0
}

Using the Stencil Buffer to Better Outline Polygons
Using the Stencil Buffer to Perform Hidden Line Removal