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