

```
#Derek Beck
#Assignment 7 - Smoke Shader
```

```
Display "smoke_03.tif" "tiff" "rgb"
Format 1000 600 1
Projection "perspective" "fov" [45]
Translate 0 0 7.5
Rotate -90 1 0 0
Translate 0 0 -3
Rotate -10 1 0 0
```

```
WorldBegin
```

```
LightSource "SpotLight" 2 "intensity" 80 "lightcolor" [0 0 1]
"from" [-3 0 2] "to" [0 -2 10]
LightSource "SpotLight" 3 "intensity" 80 "lightcolor" [0 1 0]
"from" [-1 -1.5 2] "to" [0 -2 10]
LightSource "SpotLight" 4 "intensity" 80 "lightcolor" [1 0 0]
"from" [1.5 -3 2] "to" [0 -2 10]
```

```
AttributeBegin
```

```
Translate 1 5 5
Rotate 120 1 0 0
LightSource "ambientlight" 1 "string lighttype" ["spot"]
"float falloff" [3] "intensity" [5] "float width" [.5] "float
height" [.2]
AttributeEnd
```

```
LightSource "ambientlight" 4 "intensity" .1
```

```
Illuminate 1 1
```

```
Sides 1
```

```
Declare "stepsize" "float"
Declare "density" "float"
Atmosphere "smoke" "float stepsize" [.25]
"float smokeoctaves" [4] "float smokefreq" [1] "float
opacdensity" [0.05]
"float lightdensity" [0.4]
```

```
AttributeBegin
```

```
TransformBegin
Rotate 90 0 0 1
Scale .35 .35 .35
Surface "metal.sdl"
TransformEnd
Patch "bilinear" "P" [ -5 -5 0 5 -5 0 -5 5 0 5 5 0 ]
AttributeEnd
```

```
Surface "plastic.sdl"  
Polygon "P" [ -5 -5 0 -5 -5 10 5 -5 10 5 -5 0 ]  
Polygon "P" [ 5 -5 0 5 -5 10 5 5 10 5 5 0 ]  
Polygon "P" [ -5 5 0 -5 5 10 -5 -5 10 -5 -5 0 ]  
AttributeEnd
```

```
#cone 1(left)  
AttributeBegin  
Translate -3 0 0  
Scale 1 1 1  
Color 0 0 1  
Surface "plastic.sdl"  
Cone 2 1 360  
AttributeEnd
```

```
#torus 1  
AttributeBegin  
Translate -3 0 2  
Scale .7 .7 .7  
Color .6 .6 .7  
Surface "metal.sdl"  
Torus 1 .1 180 360 360  
AttributeEnd
```

```
#cone 2  
AttributeBegin  
Translate -1 -1.5 0  
Scale 1.2 1.2 1.2  
Color 0 1 0  
Surface "plastic.sdl"  
Cone 2 1 360  
AttributeEnd
```

```
#torus 2  
AttributeBegin  
Translate -1 -1.5 2.5  
Scale 1 1 1  
Color .6 .6 .7  
Surface "metal.sdl"  
Torus 1 .1 180 360 360  
AttributeEnd
```

```
#cone 3  
AttributeBegin  
Translate 1.5 -3 0  
Scale 1.4 1.4 1.4  
Color 1 0 0  
Surface "plastic.sdl"  
Cone 2 1 360  
AttributeEnd
```

```
#torus 3
AttributeBegin
Translate 1.5 -3 2.8
Scale 1.2 1.2 1.2
Color .6 .6 .7
Surface "metal.sdl"
Torus 1 .1 180 360 360
AttributeEnd
```

```
WorldEnd
```