Procedural Texturing

Surfacing an apple in
10 easy steps

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What is Procedural Texturing?

- Fractal image maps
- Usually black & white
- Can “blend” textures together
- Can use alpha layers
Benefits of Procedural Texturing

- Creates randomness
  - Photo realism
  - Organic model surfacing
- Does not repeat like image maps
- Especially good for volumetrics
  - Fire
  - Smoke
  - Etc.
Surfacing an apple using procedural textures

Why use procedural textures?
- Photo realism
  - Creates “randomness” on the skin of the apple
  - Color variations
- Low render time
Step 1

- Load Object
  - File -> Load Object
Step 2

- Open Surface Editor (ctrl+f3)
  - Select apple layer
  - Change color
    - R: 103
    - G: 5
    - B: 5
Step 3

- Click on “T” beside the color channel
- Add layer
  - Procedural
    - Type: Fractal noise
  - Color
    - R: 156
    - G: 58
    - B: 56
  - Scale: 1.8m
Step 4

- Add layer
  - Procedural
    - Type: Smokey2
    - Color
      - R: 113
      - G: 80
      - B: 34
    - Opacity: 30%
    - Scale: 15m
Step 5

- Add layer
  - Procedural
  - Type: Turbulence
  - Blending Mode: Alpha
  - Color: White
  - Contrast: 95%
  - Order: Above Smokey2
Step 6

- Insert image maps
- Blending Mode: Additive
Step 7

Order of layers:

- Image Maps
- Fractal Noise
- Turbulence
- Smokey2

<table>
<thead>
<tr>
<th>Layer Name</th>
<th>Opac</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>I: Appletop.psd</td>
<td>55%</td>
<td>+</td>
</tr>
<tr>
<td>I: Appleside.psd</td>
<td>50%</td>
<td>+</td>
</tr>
<tr>
<td>P: Fractal Noise</td>
<td>100%</td>
<td>N</td>
</tr>
<tr>
<td>P: Turbulence</td>
<td>100%</td>
<td>A</td>
</tr>
<tr>
<td>P: Smoky2</td>
<td>30%</td>
<td>N</td>
</tr>
</tbody>
</table>
Step 8

- Click on “T” beside the diffuse channel
  - Add layer
    - Procedural
    - Type: Fractal Noise
    - Size: 1.8m
Step 9

- Click on “T” beside the specular channel
  - Add layer
    - Procedural
    - Type: Smokey1
    - Size: 80mm
    - Contrast: -40%
  - Adds “waxy” shine to apple
Step 10

- Click on “T” beside the bump channel
- Add layer
  - Procedural
  - Type: Smokey1
  - Scale: 80mm
  - Bump value: -25%
Procedural Texturing

Pros

- Use for photo realistic surfaces
  - Randomness
  - Can be used on all surface channels
- Use with volumetrics
  - Fire, smoke, etc.
- Low render time
Thank You

Questions?