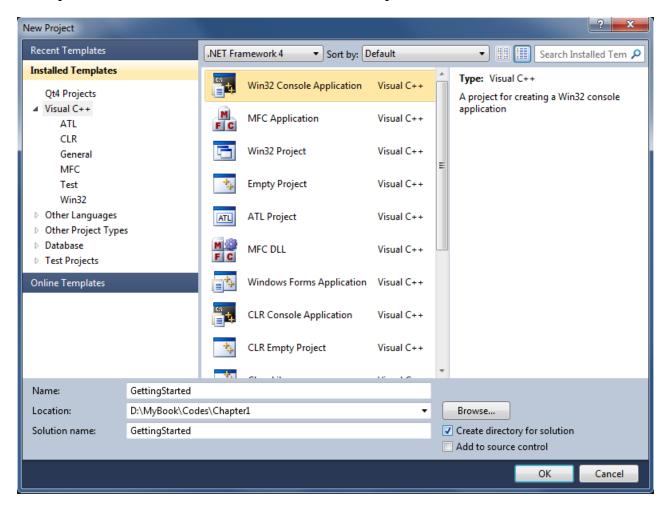
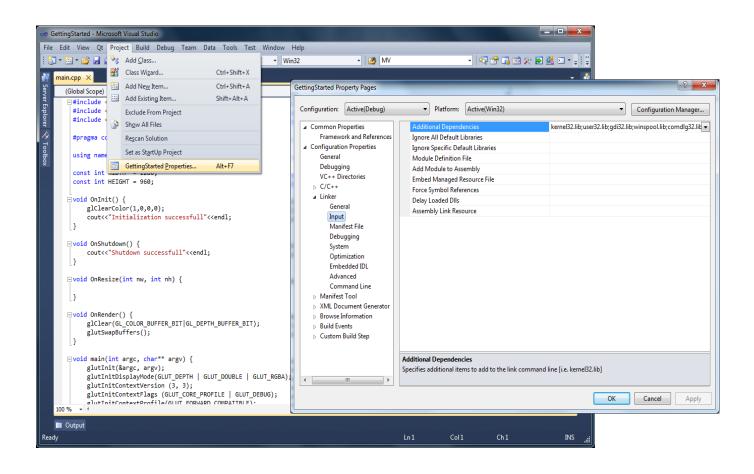
### **Chapter 1: Introduction to Modern OpenGL**



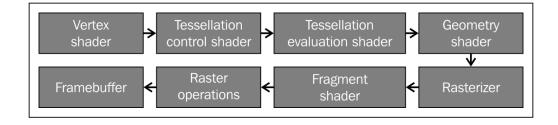
Win32 Application Wizard - Get	tingStarted	? ×
Applicat	tion Settings	
Overview	Application type:	Add common header files for:
Application Settings	<ul> <li>Windows application</li> <li>Console application</li> <li>DLL</li> <li>Static library</li> <li>Additional options:</li> <li>Empty project</li> <li>Export symbols</li> <li>Precompiled header</li> </ul>	☐ ATL ☐ MFC
	< Previous	Next > Finish Cancel

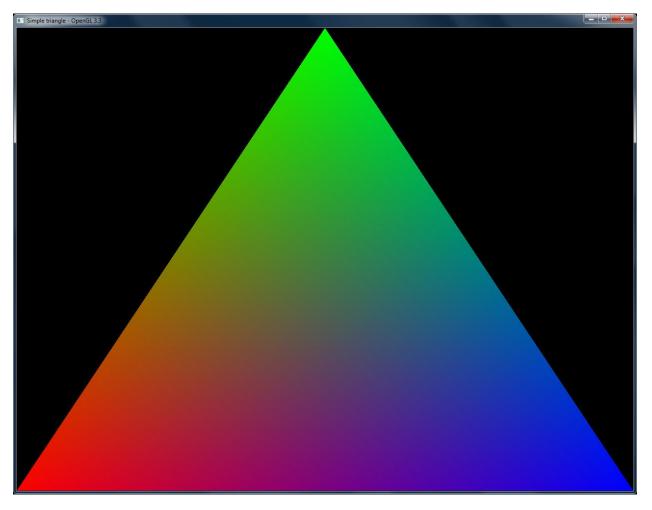
8 ×
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Macros>>

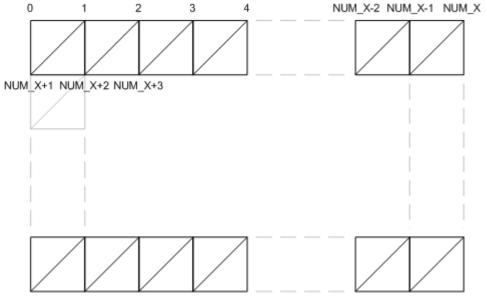
ibrary Directories	8 ×
D:\Libraries\glew-1.9.0\lib\ D:\Libraries\freeglut-2.8.0\lib\x86\	A
٠ III	•
\$(VCInstallDir)atlmfc\lib \$(WindowsSdkDir)lib \$(FrameworkSDKDir)\lib	-
\$(WindowsSdkDir)lib	Macros>>

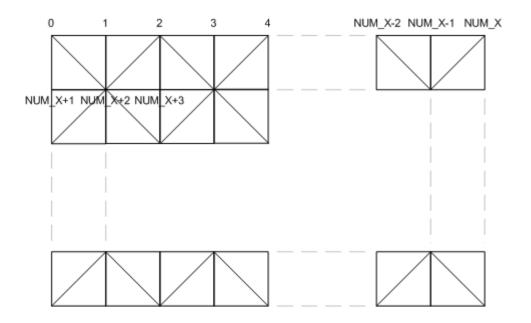


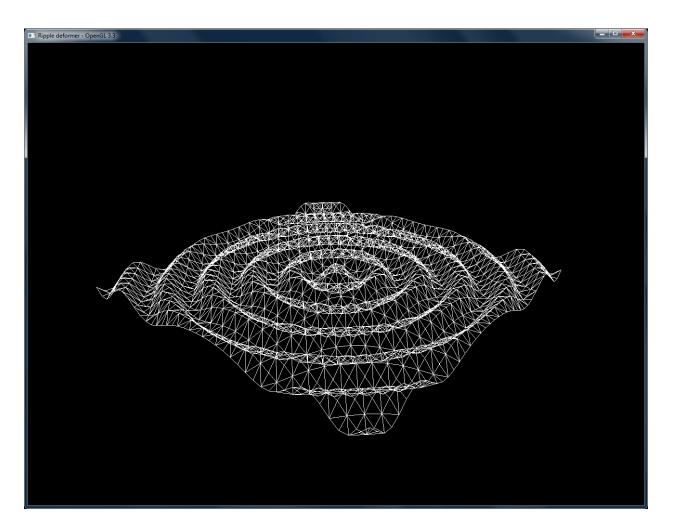


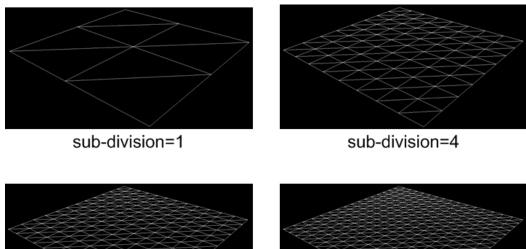


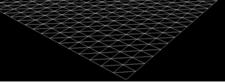












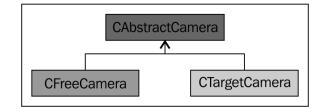
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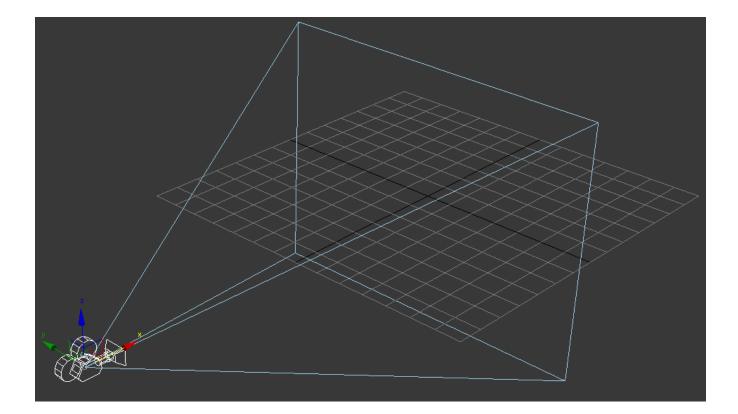
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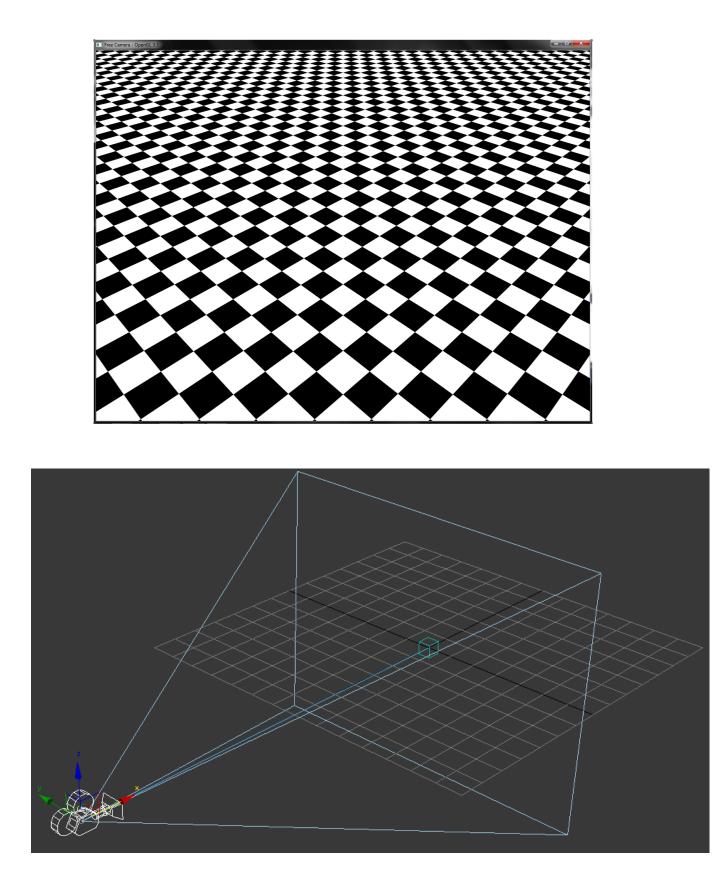


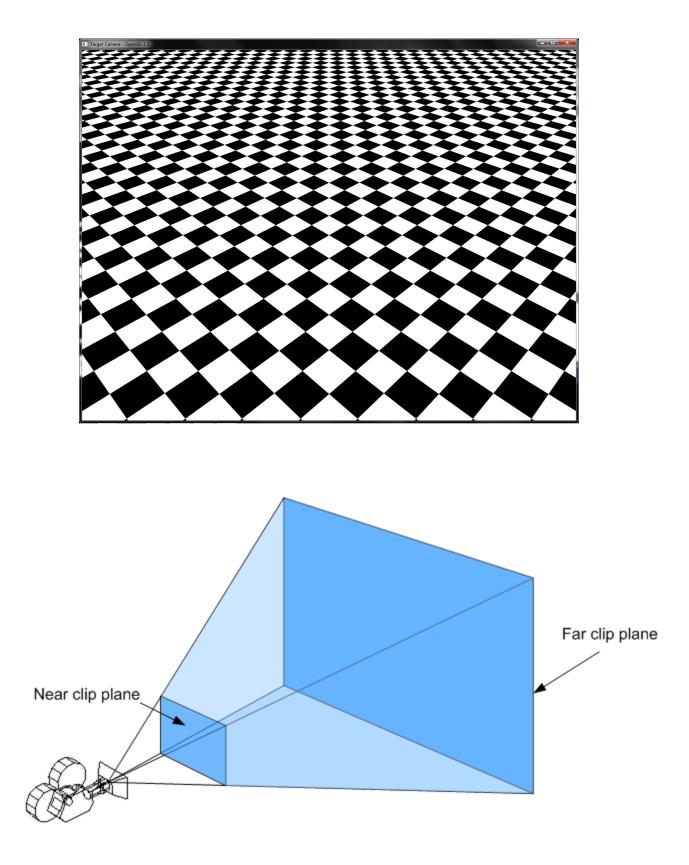
$$y = A.\sin(2\pi ft + \varphi)$$
$$d(x, y, z) = \sqrt{x^2 + y^2 + z^2}$$
$$F(x, y, x) = A.\sin(-\pi fd(x, y, z) + \varphi)$$

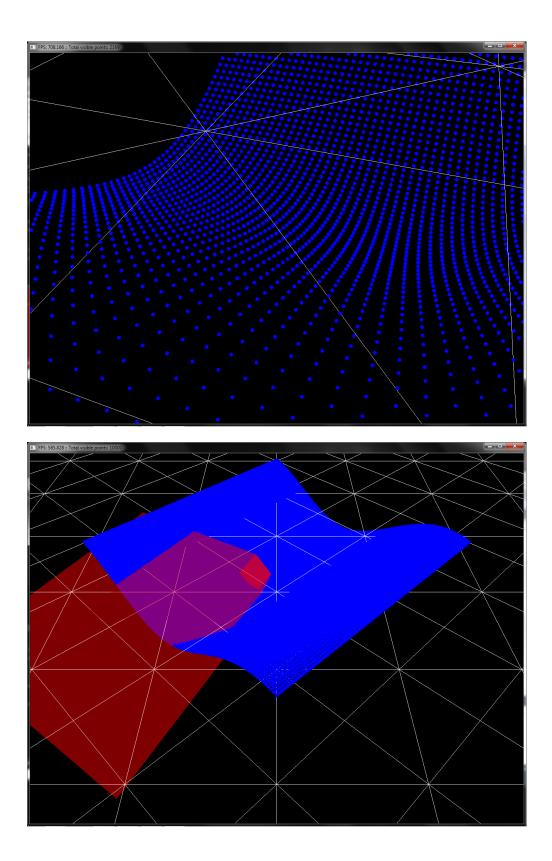
## **Chapter 2: 3D Viewing and Object Picking**

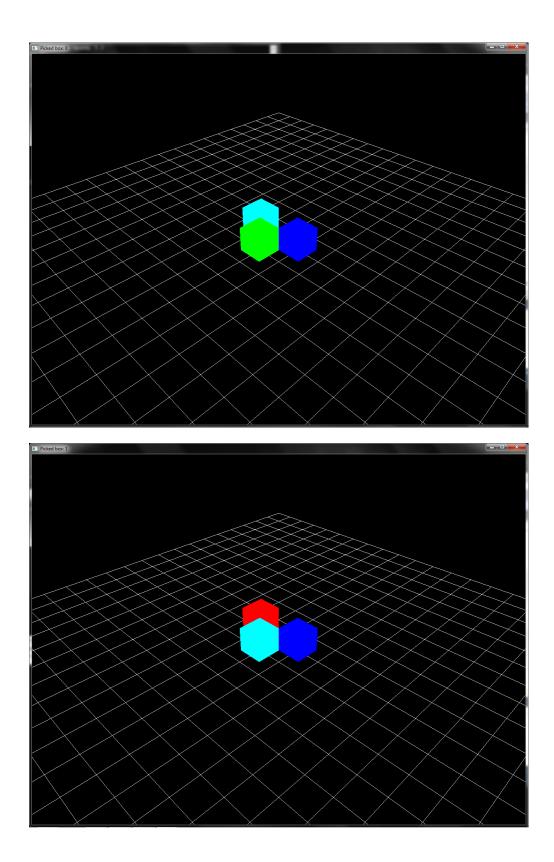


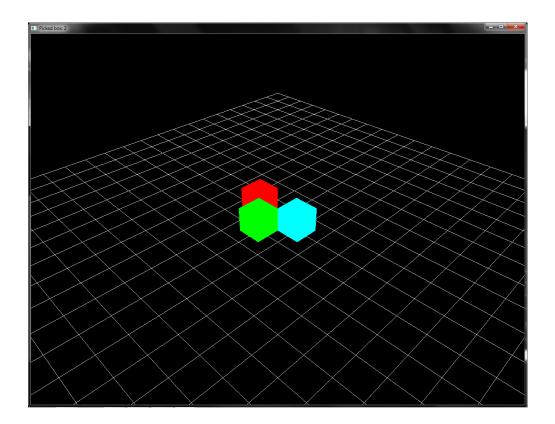


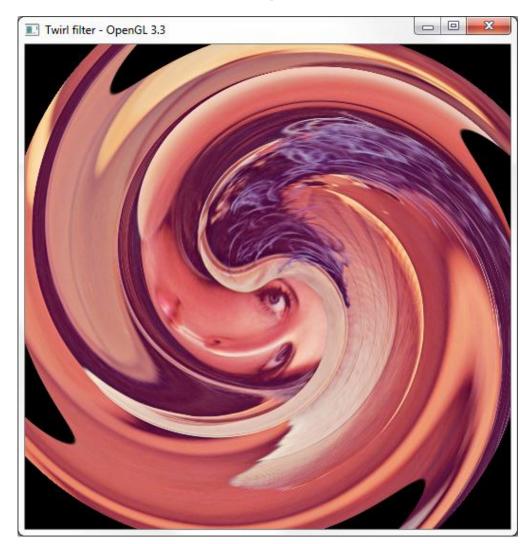






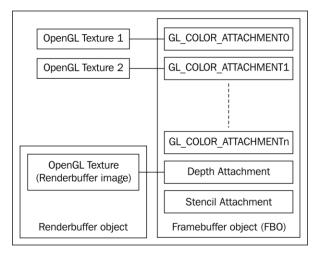


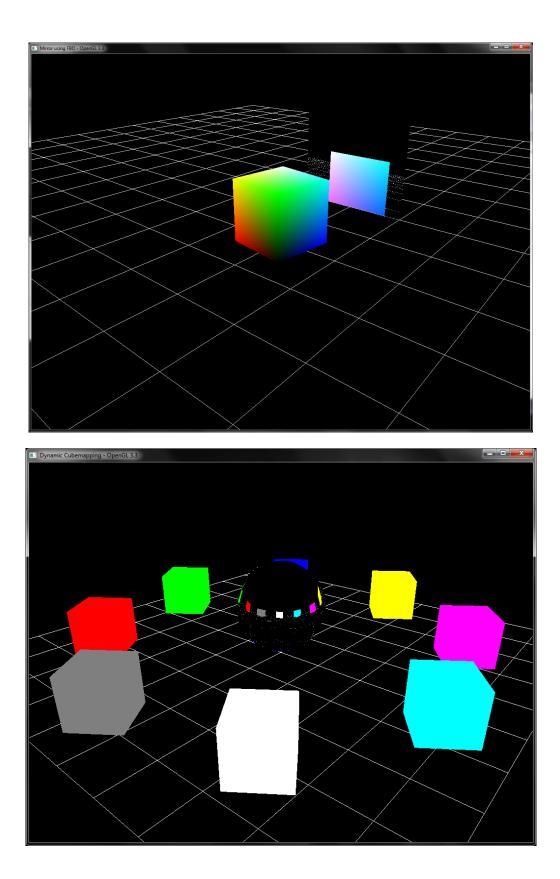


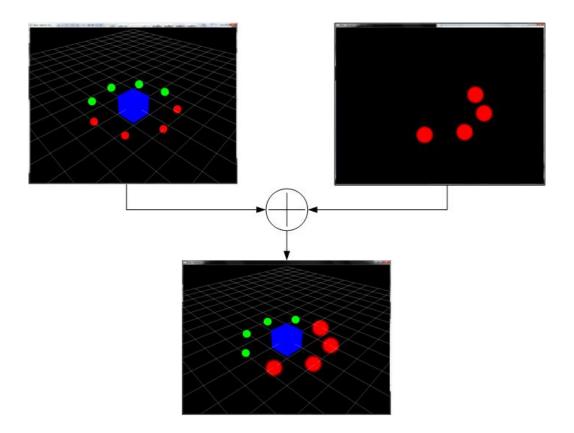


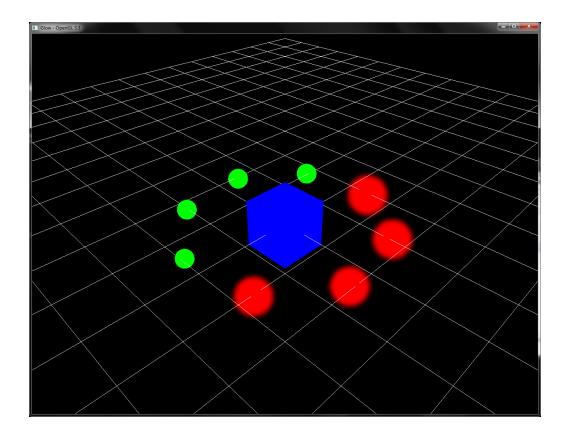
## **Chapter 3: Offscreen Rendering and Environment Mapping**





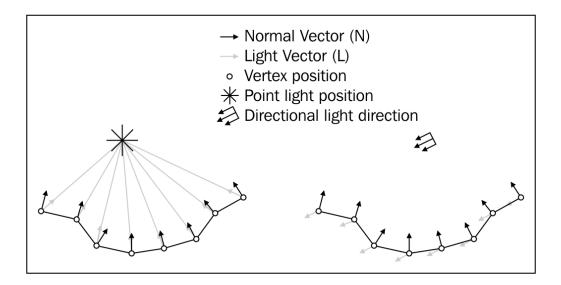


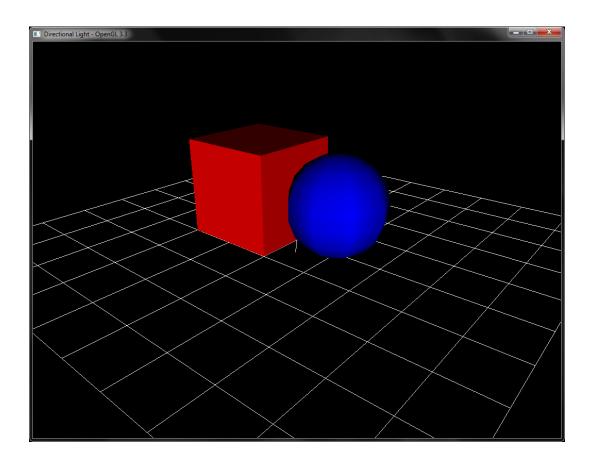


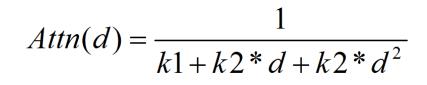


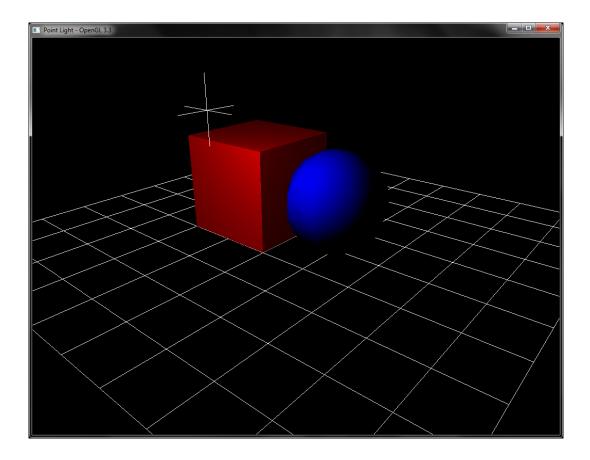
# Per-vertex Lighting - Op Per-fragment Lighting - Op

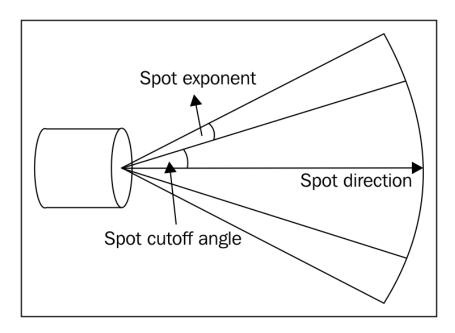
## **Chapter 4: Lights and Shadows**

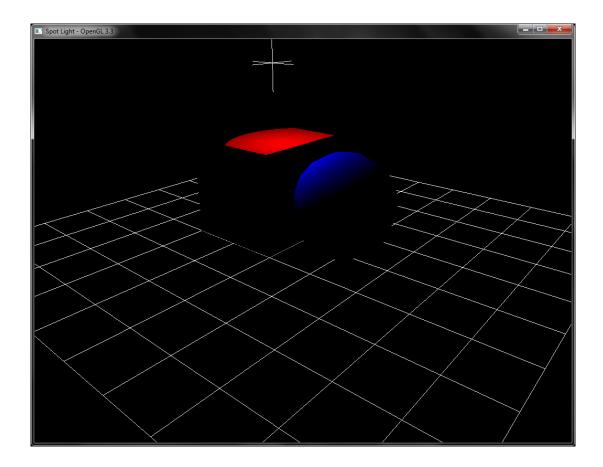




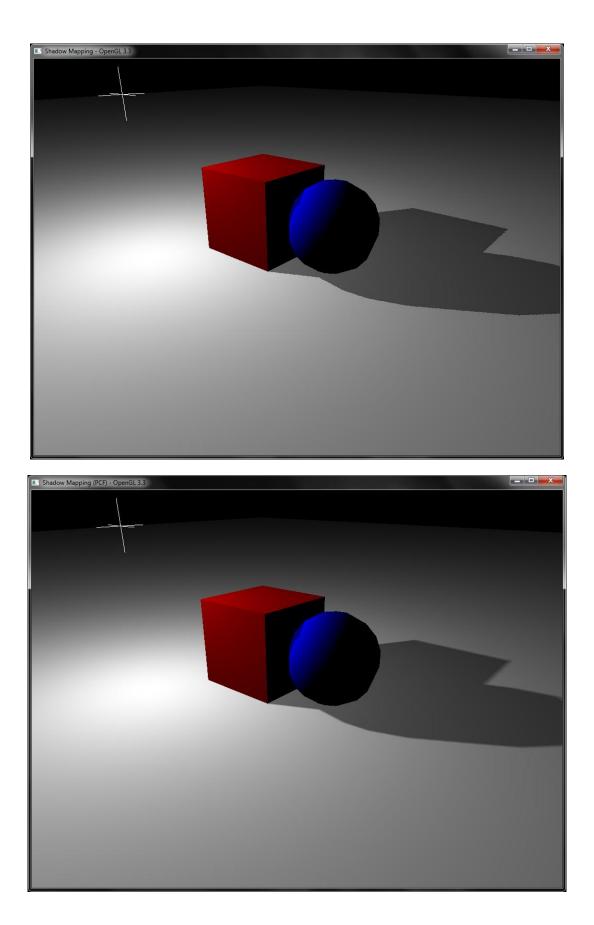


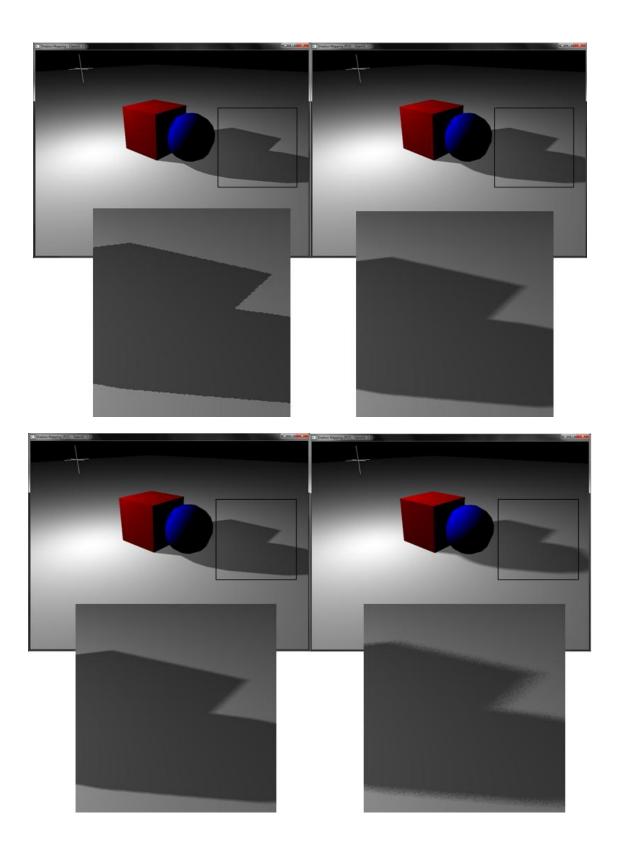


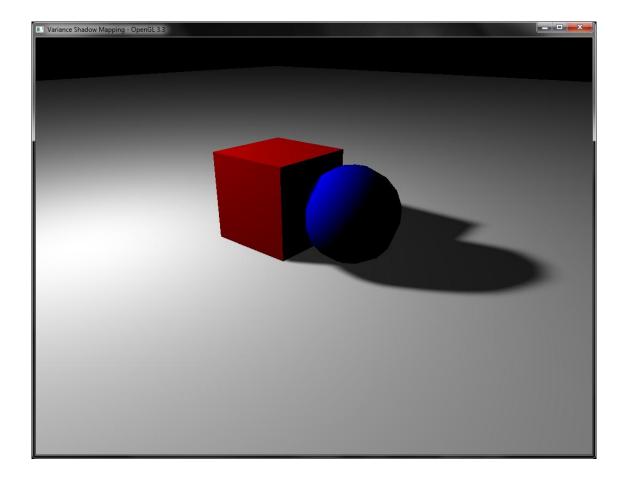


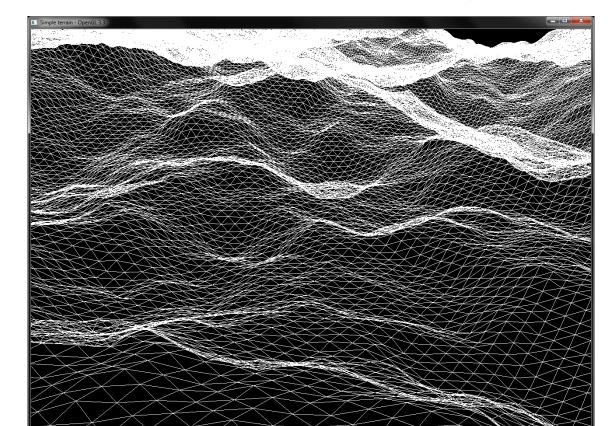


$$UV_{proj} = S * MV * V_{obj}$$
$$S = B * P_L * MV_L$$

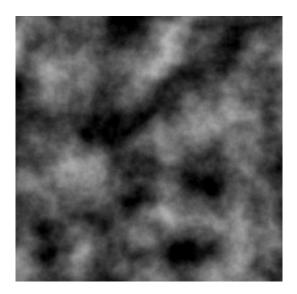


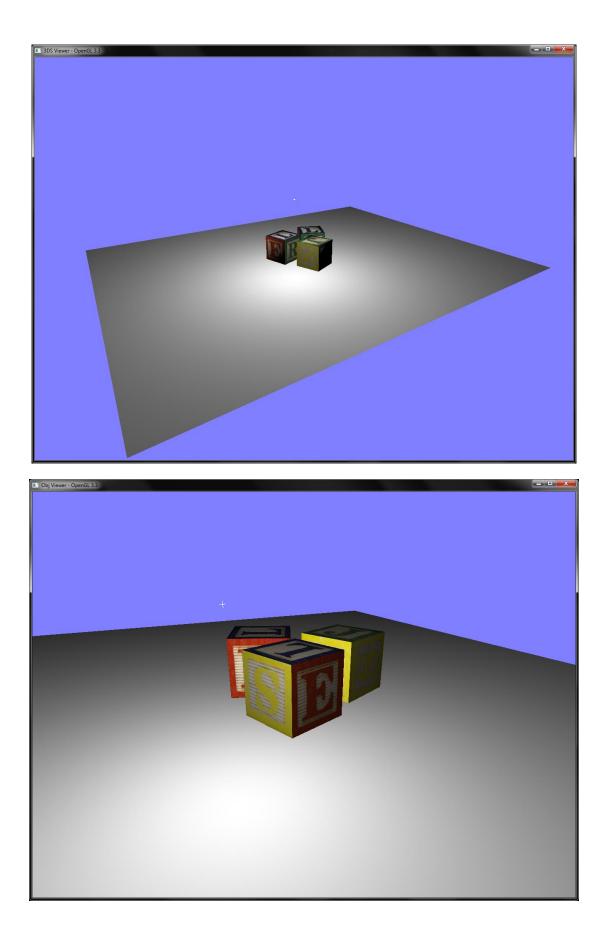


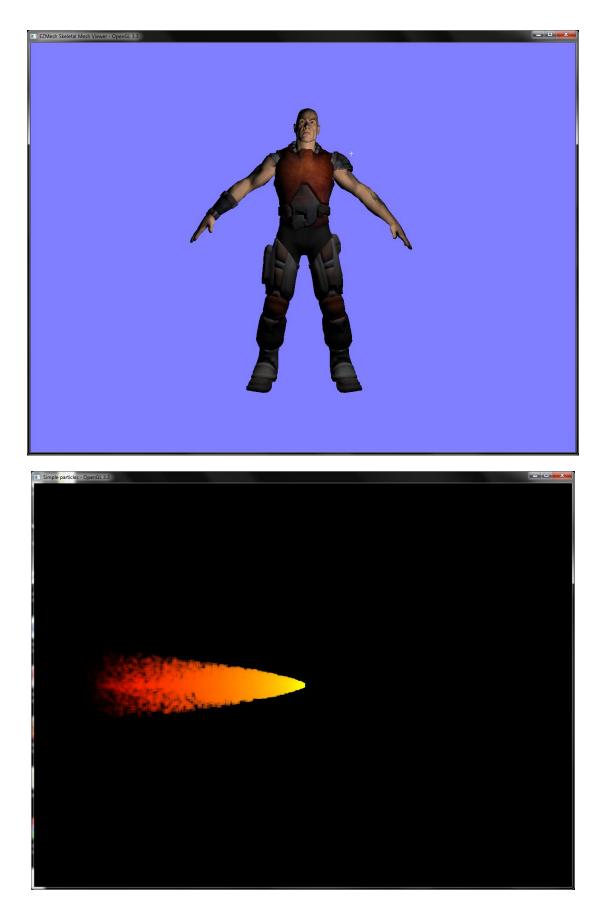


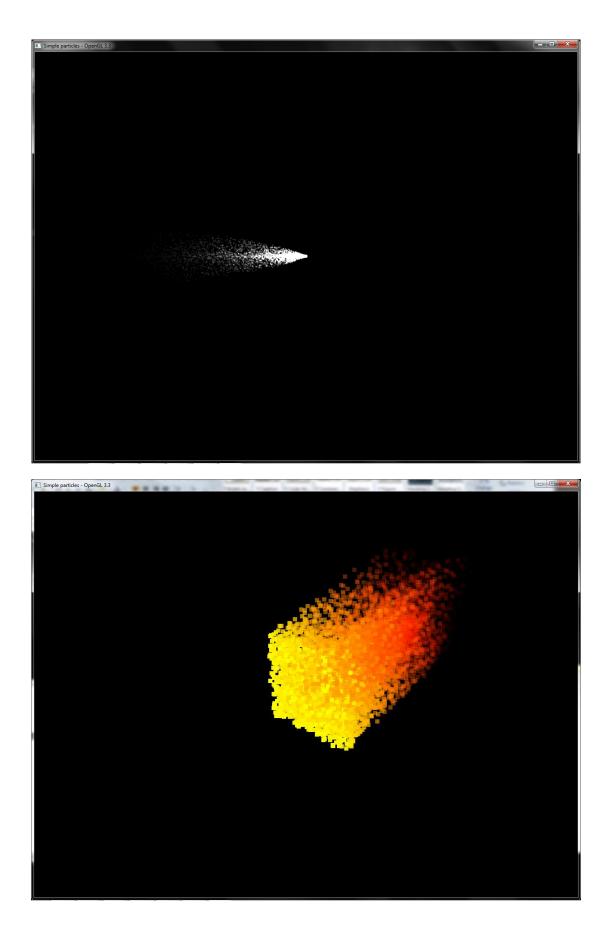


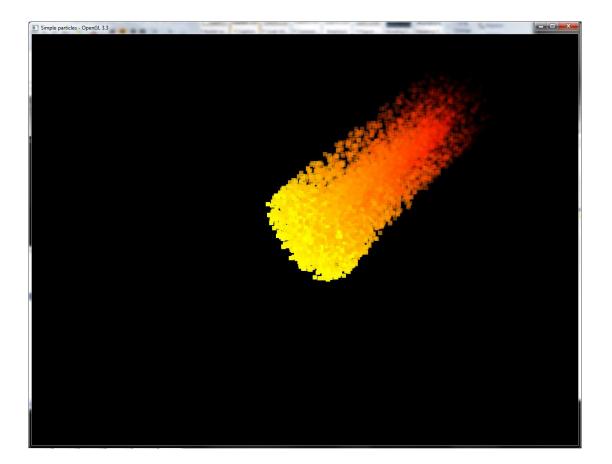
Chapter 5: Mesh Model Formats and Particle Systems



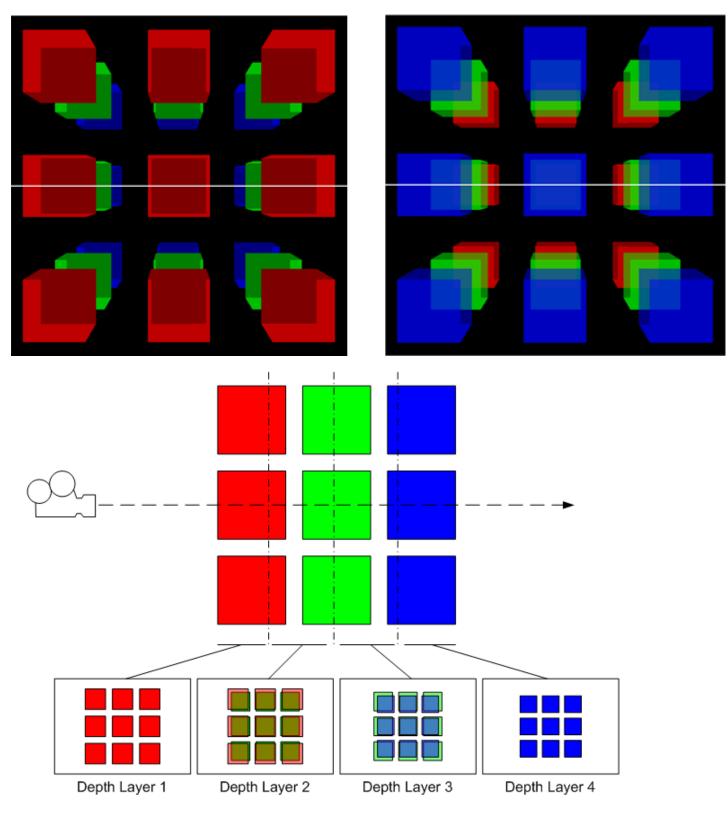


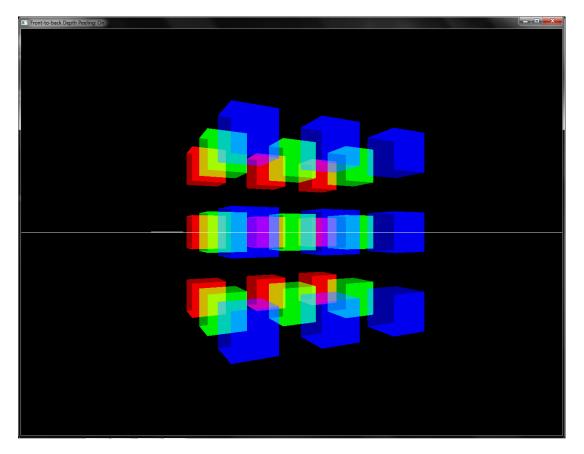


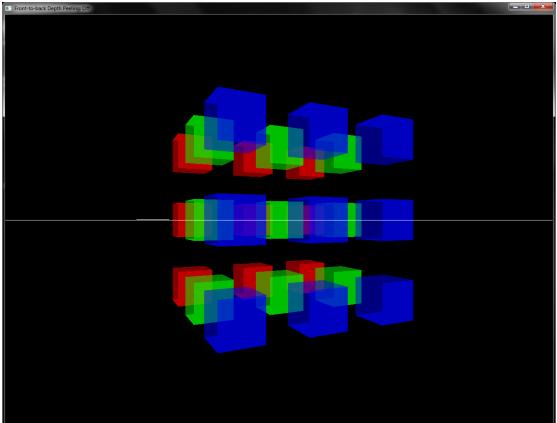


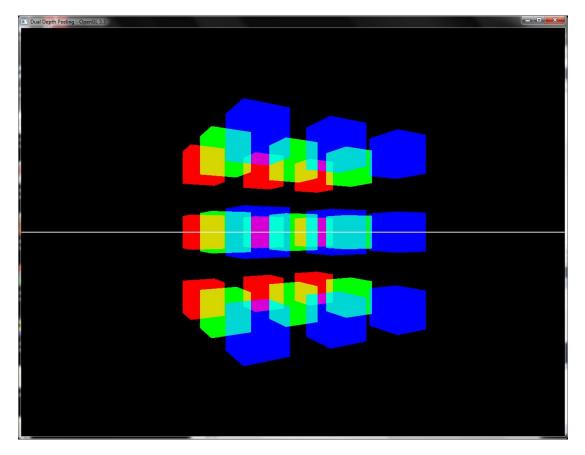


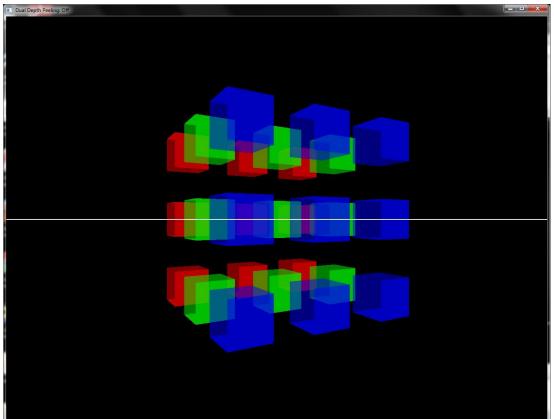
# Chapter 6: GPU-based Alpha Blending and Global Illumination

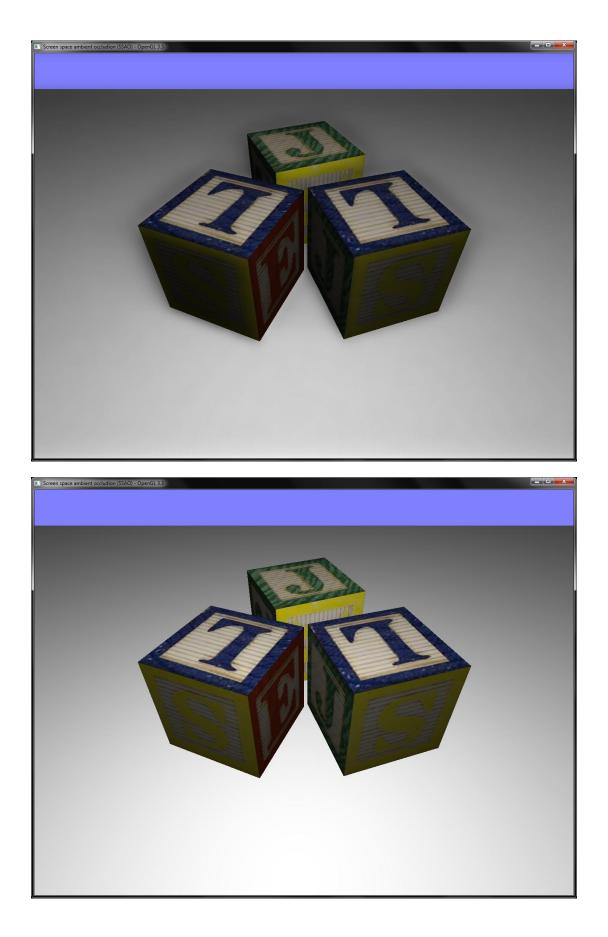


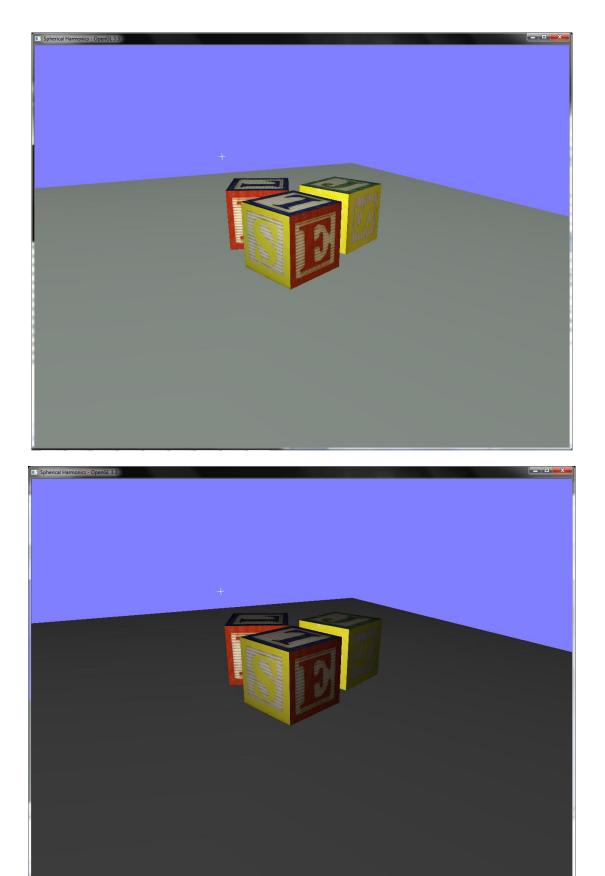


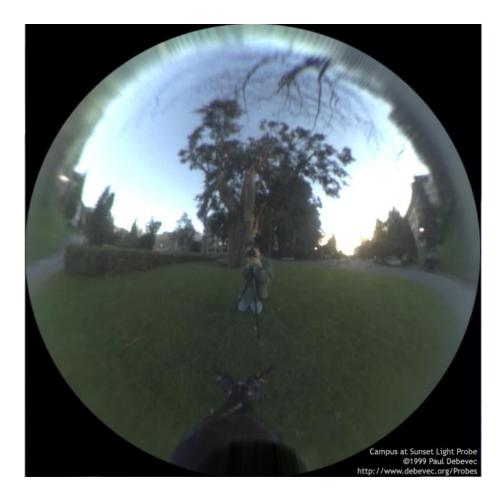


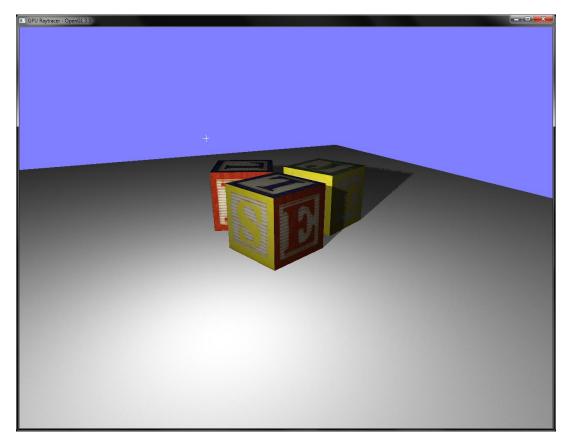


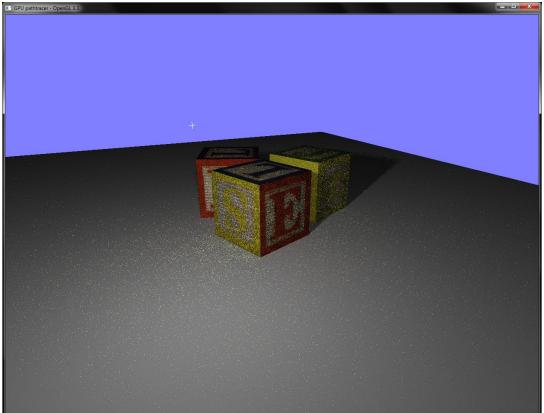




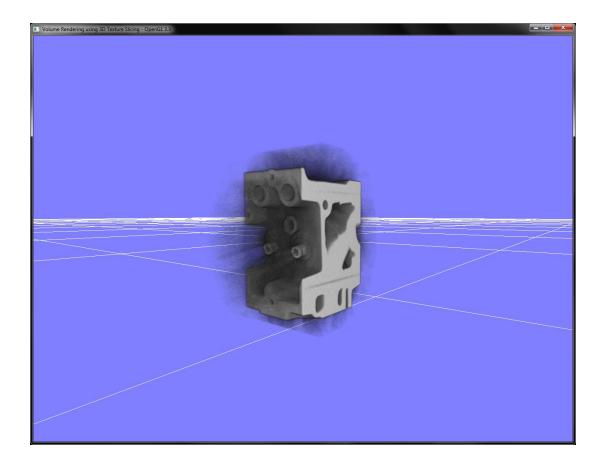


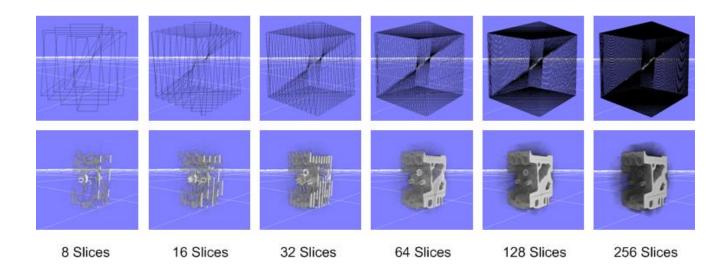


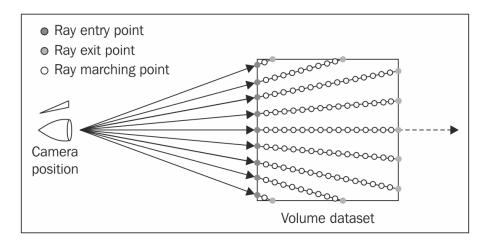


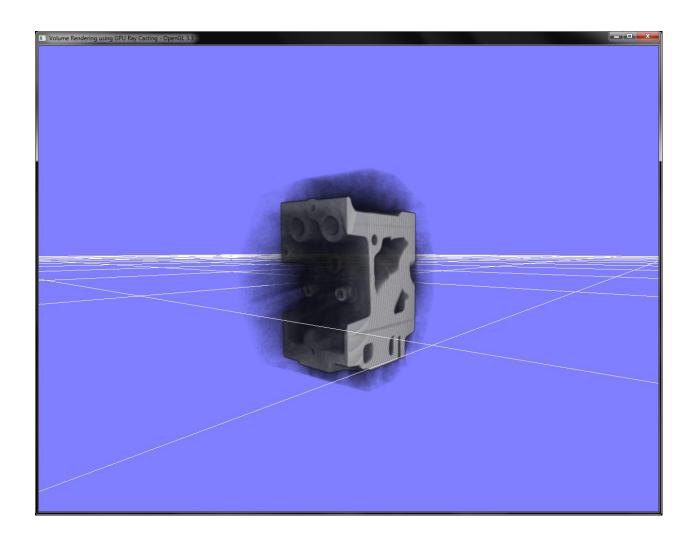


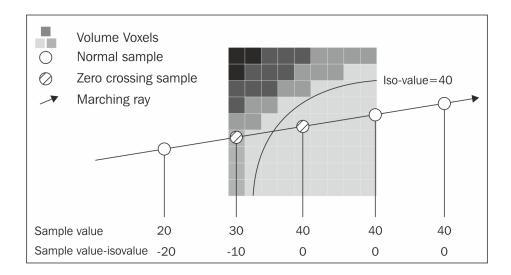
**Chapter 7: GPU-based Volume Rendering Techniques** 

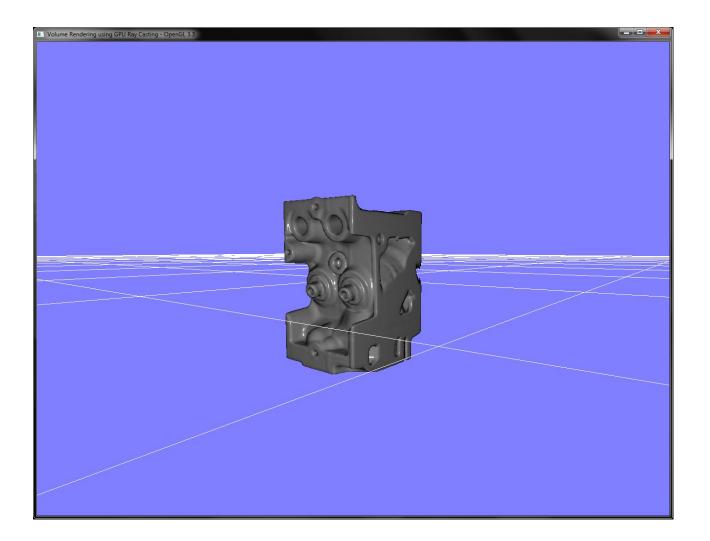


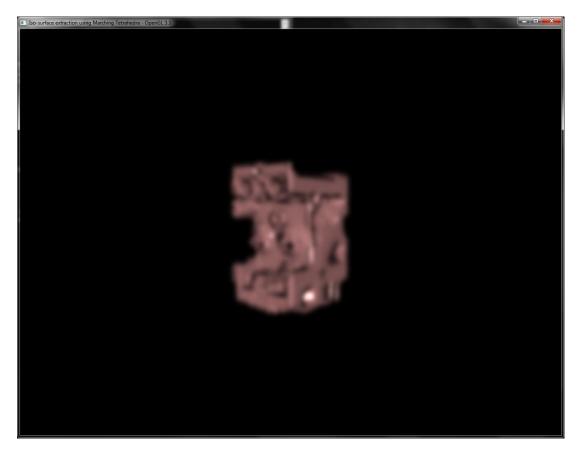


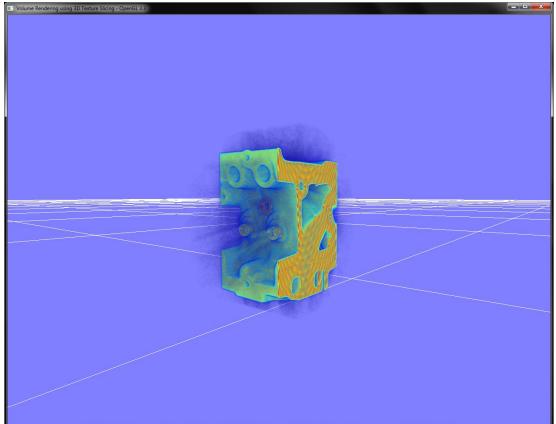


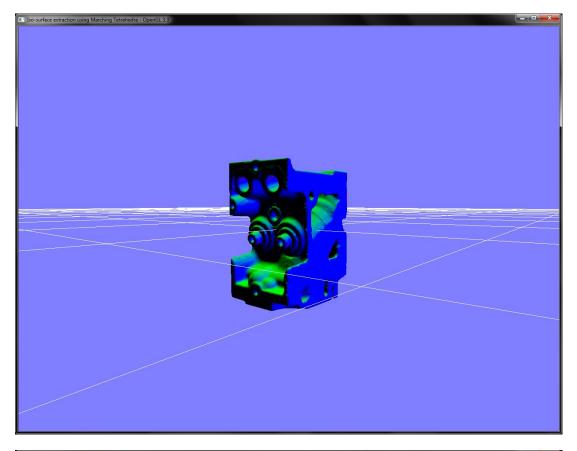


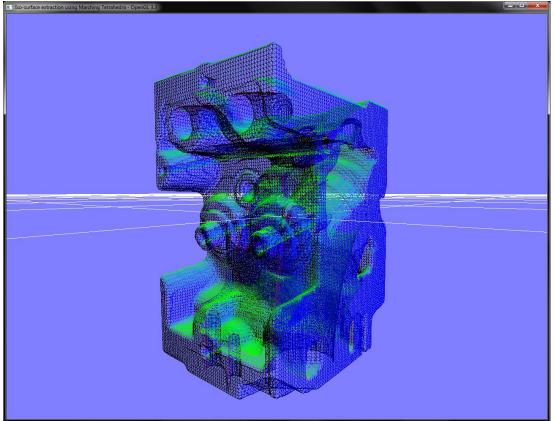


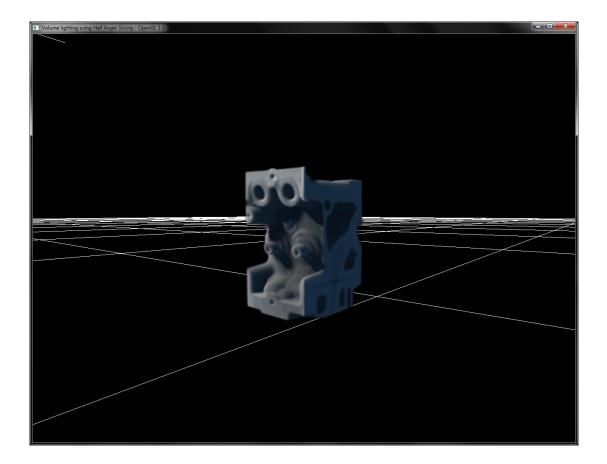












Chapter 8: Skeletal and Physically-based Simulation on the GPU



○ Input vertex

Linear blended vertex

Ø Dual quaternion blended vertex

