

Master Thesis by Marius Dransfeld

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SUBMITTED TO ACM SIGGRAPH 2016,
5th Annual Faculty Submitted Student Work Exhibit,
Anaheim, CA, 24-28 July 2016

Task: An existing concept and implementation of a global illumination model for atmospheric scattering based on deferred rendering has to be extended to allow for correct rendering of transparent objects. Real-time capability and reduction of visual flaws, such as antialiasing, are to be optimized. The prototypes have to be implemented with OpenSceneGraph and OpenGL, using the programming languages C++ and GLSL.

Results: The video shows the result of the thesis with a proof of concept in a traffic environment with transparent car windows, foliage and fences.

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Bachelor Thesis by Timo Renzelmann

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In this bachelor thesis the student has to design and implement a shader that gives materials a wet appearance. The shader has to be based on physical principles. The programming language to use is OpenGL and the shading language is OpenGLSL.

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