

An Interactive Introduction to OpenGL Programming

SIGGRAPH 2001 – Course 54

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ABSTRACT

This course provides an introduction to writing interactive computer graphics applications using the OpenGL Application Programming Interface (API). In addition to presenting the calls of the OpenGL library in the context of generating particular graphics effects, like lighting or texture mapping, the course makes extensive use of tutorial programs that allow students to interactively manipulate the parameters of the function calls and immediately see the affects on the rendered image.

The course assumes no previous experience with OpenGL, merely the ability to read simple “C” programs. Topics range from an brief overview of the OpenGL libraries, to the rendering of simple geometric primitives, to geometric transformations and advanced features of OpenGL including lighting, texture mapping, anti-aliasing, and image processing.

Speaker Biographies

Dave Shreiner

Member of the Technical Staff
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Dave is a member of the OpenGL development team at Silicon Graphics Computer Systems. He has over 14 years of experience with visual simulation and scientific visualization, including over ten years at SGI. He has presented several lectures and courses on OpenGL at various conferences, including SIGGRAPH, and IEEE Visualization. He is co-author of the *OpenGL Programming Guide* (Addison-Wesley, 3rd edition, 1999) and editor of the *OpenGL Reference Guide* (Addison-Wesley, 3rd edition, 2000). Dave has a Bachelors degree in Mathematics from the University of Delaware, and is an Adjunct Professor of Computer Science at Santa Clara University.

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Ed is Professor in the departments of Computer Science, and Computer and Electrical Engineering at the University of New Mexico. He has over 25 years of experience in research and teaching in computer graphics and image processing. He is the author of *Interactive Computer Graphics: A Top-Down Approach using OpenGL* (Addison-Wesley, 2nd Edition, 2000), and *An OpenGL Primer* (Addison-Wesley, 2001). He has taught over 100 professional short courses worldwide, including at SIGGRAPH, and IEEE Visualization.

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Vicki is a member of SGI's technical education department. She has over 15 years experience in presenting technical topics at both Hewlett-Packard and SGI, including teaching SGI's OpenGL courses. She has conducted courses in many venues include SIGGRAPH and Game Technology 2001. Vicki has a Bachelor's degree in Computer Science and Mathematics from Lebanon Valley College.

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