OpenGL and Window System Integration

"Fastest 3D, most portable 3D"

SIGGRAPH '96 Course

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Abstract

This course explains the development options for writing portable, high−performance OpenGL programs for the X Window System. In addition to the standard Xlib and Motif interfaces, this class introduces high−level toolkits and alternative OpenGL interfaces for non−X11 systems such as Win32, OS/2, and the Macintosh. Advanced topics like stereo, printer hardcopy, effective debugging, and exotic input devices are covered. The course explains how OpenGL is accelerated by various classes of 3D graphics hardware and how to tune the performance of OpenGL applications for these common hardware classes.

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The Speakers

Mark J. Kilgard

- Member of the Technical Staff, Silicon Graphics, Inc.
- Regular columnist on OpenGL for *The X Journal*.
- Directly involved in the design and implementation of SGI's window system support for OpenGL.
- Author of ''Programming OpenGL with the X WindowSystem.''
- Karaoke rendition of Dolly Parton's ''9 to 5'' can't be beat.

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Brian Paul

- Staff member at the University of Wisconsin Space Science and Engineering Center.
- Co−developer of Vis5d, a popular 3D scientific visualization system for atmospheric data.
- Author of Mesa, a free 3D graphics library that implements the OpenGL API and its semantics.

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Contributors

A number of people contributed information and resources for these course notes. Among them are:

- Suzy Deffeyes of IBM
- Mike Heck and Kathy Tinoco of Template Graphics Software
- Mark Kilgard, Allen Akin and Chris Frazier of Silicon Graphics
- Ben Bederson of the University of New Mexico
- Jim Grandy of Carnegie Mellon University
- Chak Tan of the University of Rochester
- David Ascher of Brown University
- Ekkehard Beier of the Technical University of Ilmenau, Germany

Thanks for your contributions!

Online course notes

These course notes are available on the world wide web from http://www.ssec.wisc.edu/~brianp/sig96/index.htm. Any additions or corrections to these notes will be put on that site.

Last edited on May 14, 1996 by Brian Paul.

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