



SimGL™

Simulation Graphics Library for OpenGL Applications

D A T A S H E E T

OVERVIEW

The Quantum3D SimGL (Simulation Graphics Library) is an OpenGL compatible device driver implementation. Whereas OpenGL is designed for a wide variety of 3D development, *SimGL is specifically designed for visual simulation and other realtime application environments that require OpenGL and a high speed, low overhead implementation.* Applications can run more than 300% faster with SimGL than when using regular OpenGL drivers on the same hardware.

PRODUCT FEATURES

- Optimized for Intel Pentium III SIMD instructions for maximum performance
- Transparent to the end user that SimGL is being used in lieu of OpenGL.
- Runs most OpenGL applications without recompiling or relinking
- SimGL implements 267 of the 334 OpenGL 1.1 functions including popular extensions
- Function calls for SimGL are identical to OpenGL including arguments and function names
- Supports fully automated, full scene, subpixel anti-aliasing operations when running OpenGL applications on Quantum3D Heavy Metal GX+ with Mercury subsystems
- Uses Direct3D and Glide as native API foundations
- Portable: delivers improved performance on a variety of 3dfx and other graphics accelerators
- Runtime executable licenses are included with all professional series Quantum3D graphics boards and all Quantum3D system products
- GLU libraries are supported
- Available for Intel-based systems running Windows 95, Windows 98, Windows NT, Linux



PERFORMANCE COMPARISON

SimGL is fully optimized for the Intel SIMD instruction set, providing significant performance improvements.

OpenGVS: Pentium-III 500 displaying a 3D Studio model with approximately 22,500 independent triangles using Voodoo3 3500 graphics hardware under Windows NT 4.0:

- With normal OpenGL drivers: **7 Hz.**
- With SimGL drivers: **88 Hz**

The performance gains with SimGL for other applications will vary depending on many include CPU usage and utilization.

AVAILABILITY

- SimGL runtime licenses included with all Quantum3D systems and professional graphics subsystems free of charge
- Windows 95, Windows 98, Windows NT and Linux
- Other platforms are also supported, contact Quantum3D for product and sales information