

SciTech GLDirect

Release Notes

Version 2.0

Benefits of SciTech GLDirect

SciTech GLDirect is the utility package for Windows 95/98/Me/2000/XP that combines the power of the OpenGL API with the wide availability of Direct3D hardware drivers. It accomplishes this by enabling OpenGL based games and applications to access 3D hardware acceleration through the Direct3D 7.x drivers provided by your graphics hardware manufacturer. The OpenGL API is the cross-platform, high performance standard for 3D graphics applications.

What's new in this version

SciTech GLDirect 2.0 now provides support for professional applications, a high performance game driver, and adds stereoscopic display support in both the CAD and Game drivers.

Support for Professional Applications

SciTech GLDirect can be used with professional 3D CAD and modeling applications such as AutoCAD 2000, 3D Studio Max, SolidWorks, and many others.

SciTech GLDirect Game driver

The SciTech GLDirect Game driver is a new driver optimized specifically for games. It provides faster performance for games and similar applications, including GLQuake (and variants like GLHexen, etc.), Quake2, Quake3, and others. SciTech GLDirect also supports AMD 3D-Now for optimum 3D geometry support.

SciTech GLDirect Stereo Display features

With SciTech GLDirect 2.0, you can run stereoscopic OpenGL applications with graphics boards that are not specially equipped for stereo display. Even non-stereo OpenGL applications can be configured to produce stereo (3D) images. With Application-controlled Stereo or Driver-controlled Stereo, users also have the ability to override applications with built-in stereo support (like Quake3).

System Requirements

SciTech GLDirect requires:

- § A Pentium or later or compatible processor
- § Windows 95/98/Me/2000/XP
- § 3D graphics card with a 100% DirectX 6.x (or later) compatible driver
- § 8Mb or more graphics memory
- § Microsoft DirectX 7.x (or later) runtime version

GLDirect 2.0 requires DirectX 7.0 run-time drivers for base-line operation. If you have an

older DirectX 6.0 compatible driver for your particular graphics board, that driver will still work, however for maximum performance it is recommended that you upgrade your graphics boards driver to a DirectX 7.0 compatible version, if available, from the board manufacturer or chipset vendor.

You may experience some visual artifacts with some older graphics cards that do not fully support the 3D functionality required by the OpenGL API. You may also experience performance problems with older hardware that does not have the performance necessary to play the latest OpenGL based games. Unfortunately GLDirect cannot make inadequate hardware work correctly or work faster.

Stereo Enabled Graphics Hardware

SciTech GLDirect includes special drivers, which enable stereo features on the following graphics chips:

- § 3DLabs Permedia 2, Permedia 2V, Permedia 3
- § ATI 3D Rage IIC, 3D Rage Pro, 3D Rage LT Pro, Rage Mobility, Rage XL
- § ATI Rage 128, Rage 128 Pro, Rage Mobility 128, Rage 128 Ultra
- ATI Rage Mobility 128-D4x, Mobility Radeon, Mobility Radeon 7500
- § Cirrus Logic Laguna 5465
- § Matrox MGA-G100, MGA-G200, MGA-G400, MGA-G450, MGA-G550
- § NVIDIA RIVA-TNT, RIVA-TNT2, RIVA-TNT2 M64, RIVA-TNT2 Vanta
- § NVIDIA RIVA-TNT2 Ultra, GeForce 256, GeForce DDR, Quadro
- § NVIDIA GeForce2 GTS, GeForce2 MX, GeForce2 Ultra, Quadro2 MXR
- § NVIDIA Quadro2 Pro
- § Rendition Verite V1000, Verite V2200
- § S3 Virge/GX2, Savage4

SciTech is constantly adding support for new graphics chips. If your graphics chip is not on this list, please check the SciTech web page and see if there is a later version that may support your hardware.

Supported Stereo Devices

SciTech GLDirect supports all major brands of stereo display hardware. There are also custom configuration options for devices that are not listed:

Anaglyph (paper) Eyewear

- § Red/Blue, Red/Green, Red/Cyan

Liquid Crystal Stutter (LCS) Glasses

- § 3DTV PCP
- § 3DTV PCS
- § Chinon CyberShades
- § ELSA 3D Revelator
- § H3D Compatible Glasses
- § I-Art VR Works

- § i-O Display H3D Gamer
- § i-O Display H3D Cruiser
- § ISee3D DVU 2000-I
- § NuVision 3D-Spex
- § StereoGraphics CrystalEyes
- § StereoGraphics SimulEyes
- § StereoGraphics StereoEyes
- § VRex VRSurfer
- § VR Standard VRJoy
- § Woobo CyberBoy

Head Mounted Displays (HMD)

- § Forte VFX1
- § IIS VFX3D
- § i-O Display i-glasses
- § Virtual-IO i-glasses

Stereo Projection Systems

- § Custom configurable

Known Issues

The following is a list of currently known problems with SciTech GLDirect. Please do not send in problem reports for anything in this list.

- § Some applications (Quake II, Hexen II, Heretic II, and other games base on the Quake II engine, etc.) ship with OpenGL driver files, located in the application directory. These may need to be renamed or deleted in order to allow the game to recognize SciTech GLDirect.
- § Some OpenGL based games currently have problems with text output (i.e. Half-Life).
- § Stencil is supported in the GLDirect CAD software driver, but only in the Direct3D driver if the hardware supports it.
- § The device listed as the primary Direct3D device may sometimes be incorrect. This is an issue with the installed Direct3D driver and you should update your graphics device driver(s).
- § Crosshairs do not appear correctly in some games. This is an issue with Direct3D. It is possible to obtain a crosshair in Quake 2 by selecting the "angle" crosshair from the Quake 2 menu (advanced users: type "crosshair 3" in the Quake 2 console).
- § Some graphics cards may produce rendering artifacts ("glitches" or incorrect rendering) when using multitexture features of some games. Multitexture can be disabled via the GLDirect control panel applet.

The following is a list of currently known problems with SciTech GLDirect Stereoscopic display support. Please do not send in problem reports for anything in this list.

- § Applications that use popup menus on a fullscreen borderless desktop window (like Sudden Depth) should be configured for windowed stereo mode instead of fullscreen stereo mode for correct operation. They also should have the Advanced option for Always Blit

Fullscreen checked.

- § Applications that use StereoGraphics blue-line code signaling should enable this option via the Stereo control panel, not in the application or plug-in. If the application or plug-in has such an option, which uses an extra window at the bottom of the desktop (AutoCAD, Solid Edge), this will affect the display of the selected models stereo view if left enabled.
- § If a CAD application is unable to complete loading or displaying of large assembly model files (AutoCAD, SolidWorks), be sure that the GLDirect control panel option for Enable CAD Precision is checked. Otherwise, the extended numerical precision used by CAD applications may be unintentionally overridden by Direct3D.
- § You cannot print an OpenGL scene directly when GLDirect is active; however, many 3D applications already account for this and do not send OpenGL commands directly to the printer. If you experience problems printing 3D scenes, use the default OpenGL driver (disable GLDirect) before attempting to print. Note that you cannot print in stereo.

SciTech Software, Inc.
180 East 4th Street, Suite 300
Chico, CA 95928
(530) 894-8400
(530) 894-9069 FAX

Web: <http://www.scitechsoft.com>
News: <news://news.scitechsoft.com/scitech.gldirect>
Email: support@scitechsoft.com

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