
Important Information for Windows 9x RAGE 128 enhanced display driver

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***READ THIS FILE COMPLETELY BEFORE ATTEMPTING TO USE THIS
PRODUCT!***

Contents

Introduction
Windows 9x ATI RAGE 128 enhanced display driver known issues
Windows 9x Issues
Application Issues

Introduction

This file contains last-minute updates that are not found in the Online User's Manual or in any addendum accompanying the display adapter.

A number of problems are known to exist with this release. This readme highlights a number of these issues and, where possible, presents workarounds until complete solutions can be implemented. Please read this file before proceeding with the installation.

This driver supports Microsoft Windows 95 and Microsoft Windows 98

Windows 9x ATI RAGE 128 enhanced display driver known issues

- At certain low DirectDraw modes, such as 320x200, 320x240, and 400x300, the mouse pointer position may become skewed from the true cursor position by a few pixels.
 - Hardware acceleration is not supported for 8bpp and 24 bpp in D3D and OGL.
 - On some older systems using the AWARD system BIOS, there is a limitation which restrict the video BIOS to be no larger than 32K. To support the extended TV Out feature on the RAGE 128 video cards, the video BIOS is larger than 32K. The effect of this limitation by the system BIOS will cause a black screen anomaly when the TV is enabled. To resolve this problem, it is advisable that you contact your system manufacturer to update the system BIOS.
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Windows 9x Issues

- At 8bpp color depth (any resolution), playing back two AVI files simultaneously can cause color corruption in the AVI file without overlay. This is a design limitation of 8bpp that by definition uses a palette. Windows supports only one active palette.
A solution to this problem: choose a color depth other than 8bpp, or only play a single AVI file at a time.
- On AMD-K6/2-300 systems using the SIS 5591 chipset, there is a known problem whereby following restart, DX Info viewer reports that there is no AGP memory, even with the latest SIS GART file installed.
- There are known issues with certain ViewSonic monitors, including models G810 and V775, whereby selecting a Plug & Play monitor results in the loss of particular mode selections.
A solution to this problem: rather than selecting a Plug & Play monitor, install the monitor using the Monitor.inf file which came with your monitor. If this file is unavailable, you can download VSINF.exe from the monitor manufacturer (ViewSonic) at:
<http://www.viewsonic.com/DESK/DESK.HTM>

Windows 98 Second Edition Installation Issue

Problem: When installing the ATI Rage 128 display driver through the INF method on Windows 98 SE there will be a Windows Protection Error when Windows Restarts.

Resolution: Install the ATI driver using the "One Button Install (Let the CD auto run or run "atisetup.exe"). This will properly install the driver and the Windows Protection Error will not occur.

If you have already installed the driver using the INF method, Reboot your system once and the problem will be resolved.

IMPORTANT! PLEASE NOTE that this in no way affects the performance or the stability of the ATI Rage 128 display driver. This is only an installation problem that was discovered after the release of the driver in Windows 98 Second Edition. This problem will be resolved in the next release of the ATI Rage 128 display driver. The problem does not occur with Windows 98 or Windows 95.

Application Issues

The following issues are currently under investigation, and updated drivers will be made available as soon as possible.

G-Police

In Windows 9x, the cockpit (default) view exhibits missing text, unwanted triangles and polygons after repeated game starts. There may also be menu corruption during game loading.

A solution to this problem: by default, Anti-Aliasing is on; go to the Main menu, select Options -> Graphics Setup and switch Anti-Aliasing off before beginning a New Mission.

Notes regarding certain D3D games and OpenGL games

OpenGL is an advanced 3D API available to games and applications. Some OpenGL games and applications were designed prior to the recent high-end capabilities of Rage 128.

ATI recognises the need to address these kinds of situations, and have placed a number of options in an ATI specific Control Panel. Included in these control panels is the ability to enable or disable certain backward compatible features as well as enable or disable performance enhancements. If you cannot access these control panels, a solution is provided below.

A solution to this problem: To make available the ATI Control Panels for D3D and OpenGL on your system, simply perform the following:

- 1) Run RegEdit (Click on Start, then RUN, then type in REGEDIT and press ENTER)
- 2) Locate the ATI registry directory: [HKEY_LOCAL_MACHINE \ Software\ ATI Technologies \ Desktop]
- 3) If the keys D3D and OpenGL do not exist, right click on the "Desktop key". Select "Add new DWORD Value".
- 4) Give the word the name OpenGL, and set it to the value of 1 to enable the panel.
- 5) Repeat the procedure and name the key D3D.
- 6) Note: Setting the values to 0 disables the panels.
- 7) Do not change any other settings or registry entries.

This will enable the ATI Control Panel. To access the panels, right click anywhere on the desktop background and choose "Properties". Several MS standard panes pop up as well as ATI panes including OGL. By clicking on the D3D or OpenGL tab, several options present themselves.

The D3D options are described here:

The default setting is for maximum performance.

D3D: Supported Z-Buffer bit depths:

Choices are "16,24,32", or "16,24" or "16". Some games cannot use 24 or 32 bit Z-buffer. The effect is that some items are missing when playing a game, such as certain characters, etc... Exit all DD and D3D games, change this option, and then restart the game.

D3D: Use palette based textures:

A few games were designed at a time when palette based textures were considered a step forward. However, new 3D accelerators perform better without it. Some games can only run with this option turned on. In doing so, some slight performance is lost.

D3D: Enable anti-aliasing:

In low-resolution modes (e.g. 640x480), using anti-aliasing gives a better-looking display for most pictures and games. However, there is a performance penalty. For maximum frame rates, disable this option.

D3D: Wait for vertical sync:

Once a newly rendered image is ready to be drawn, it can be displayed either when the monitor is ready to draw a full screen, or at the next moment when the monitor is about to draw the next line on the screen. Waiting for vsync provides screen updates on a full screen basis, thereby eliminating flicker associated with the other option, however, at the cost of some performance loss. Disabling this feature provides a performance boost in that those newly rendered images are drawn immediately, however, some flickering may result.

The OGL options are described here:

OpenGL Button: Subpixel Precision

Determines number of bits of subpixel precision used. The more bits of subpixel precision selected, the more accurate the final rendered image will be. However, utilizing more bits of subpixel precision could slightly degrade overall performance.

OpenGL Button: Convert 32 Bit Textures to 16 Bit

Selecting this functionality will allow the OpenGL driver to convert all 32-bit textures sent by the application to 16 bit. This might increase overall performance of an application that makes heavy use of texture maps by reducing the space needed to store the texture maps. However, some color information is lost in the conversion, which could result in slightly degraded image quality.

OpenGL Button: Disable Dithering When Alpha Blending

Selecting this functionality will disable dithering when alpha blending is enabled. In certain situations, having both dithering and alpha blending enabled will cause undesirable artifacts while rendering. Choosing this functionality could alleviate some of these artifacts seen in some games and needs to be determined on an individual application/game basis. There is no performance impact.

OpenGL Button: Wait for Vertical Sync

Selecting this functionality will enable the driver to wait for vertical sync before swapping full screen buffers. This could increase the overall performance of full screen applications by eliminating the need to wait until the vertical blank period of the monitor refresh to perform the swap. However, tearing artifacts could be introduced as a result of not waiting for vertical blank.

OpenGL Button: Enable Page Flipping

Selecting this functionality will enable the use of HW supported page flipping to swap full-screen buffers. If not selected, a DirectDraw blt will be used to swap the contents of the buffers. Page Flipping is faster in most cases and should be selected for better performance.

OpenGL Slider: LOD Bias

Select the Level of Detail (LOD) bias for mipmap selection. This value will determine when a switch between mipmaps will occur i.e when to switch to the next smaller texture map. Sliding this value to the left will result in the mipmap selection being biased towards the larger, more detailed mipmaps. This will 'sharpen' the mipmapped images to some degree. Sliding this value to the right will result in the mipmap selection being biased towards the smaller, less detailed mipmaps. This will render the mipmapped images slightly more 'fuzzy'. Modifying this value could improve the image quality of mipmapped scenes. However, it is possible that other undesirable mipmapping artifacts can be introduced if this value is changed.