

SMARTGART™ FAQ



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• **Q1: Does SMARTGART disable all AGP support (including AGP reads, AGP writes, and AGP fast writes)?**

A1: No. SMARTGART tests the functionality of each AGP command and determines if your system is capable of supporting each one, and will only enable it if system stability is maintained. Please note that SMARTGART does not disable or turn off AGP support in your actual hardware; SMARTGART only ensures that the ATI CATALYST driver will not use an AGP function that has been deemed to be unstable.

• **Q2: Can I disable SMARTGART?**

A2: SMARTGART cannot be disabled, but it can be removed from your system. Please note that SMARTGART will only be installed if the ATI setup program is used to install the display driver. To remove SMARTGART, use the Windows->Control Panel->Add or Remove option to uninstall the ATI CATALYST display driver. When the system is restarted the operating system will inform you that "New Hardware" has been detected. Locate the directory where the driver is located and complete the driver installation. The ATI driver will now be installed without SMARTGART.

• **Q3: Are ATI's products capable of supporting fast writes?**

A3: Yes. The RADEON 9700 PRO, RADEON 9700, RADEON 9500 PRO, RADEON 9500, RADEON 9000 PRO, RADEON 9000 and the RADEON 8500 are capable of supporting fast writes when using an ATI CATALYST based display driver. Of course fast writes must also be supported on the motherboard you are using and be enabled in the system BIOS. In order for fast writes to be used by ATI's driver, fast writes must also pass the SMARTGART diagnostics test. ATI products previous to the RADEON 8500 as well as the RADEON 8500 DV are not capable of supporting fast writes.

• **Q4: Why don't I see a performance increase when I enable fast writes in the SMARTGART advanced control panel?**

A4: On systems where AGP reads and writes are already working correctly, enabling support for fast writes will have a minimal impact on performance as the majority of frame buffer access between graphics memory and system memory can be handled by AGP reads and AGP writes.

● **Q5: Why does disabling AGP reads and AGP writes improve the stability of my system while playing 3D games?**

A5: Some systems are not 100% reliable at transferring data across the AGP bus. AGP reads (for transferring data stored in system memory to graphics accelerator memory) were intended for 3D texture data but can also be used to transfer actual instructions or other critical data. Disabling AGP reads and writes in the advanced SMARTGART control panel ensures that the ATI CATALYST display driver does not pass critical data over a potentially unreliable AGP bus, resulting in a much higher level of stability. AGP graphics cards with 64 and 128 MB of display memory in systems with fast CPUs can usually tolerate the loss of the AGP bus transfers, so disabling these features should only have a small impact on performance.

● **Q6: What AGP speeds are compatible with graphics accelerators and motherboards that support AGP 8X?**

A6: An AGP 8X graphics accelerator can transfer data at the 8X, 4X, 2X, and 1X rates. The AGP data transfer rate that a motherboard can support depends on what level of support the motherboard was designed to have. There are three classes of motherboard support for AGP 8X:

1. AGP 3.0 motherboards are capable of transferring data at the AGP 8X and 4X rates.
2. Universal 1.5V AGP 3.0 motherboards are capable of transferring data at the AGP 8X, 4X, 2X, 1X rates but are incompatible with AGP 1.0 graphics accelerators with 3.3 Volt signaling.
3. Universal AGP 3.0 motherboards are capable of transferring data at the AGP 8X, 4X, 2X, 1X rates, as well as support graphics accelerators that are designed to transfer data at any of the AGP rates (8X, 4X, 2X, 1X).

To find out what AGP data rates are possible on your motherboard, please contact your motherboard manufacturer.



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