This release note provides information on the latest posting of AMD’s industry leading software suite, Catalyst™. This particular software suite updates both the AMD Display Driver, and the Catalyst™ Control Center. This unified driver has been further enhanced to provide the highest level of power, performance, and reliability. The AMD Catalyst™ software suite is the ultimate in performance and stability.

For exclusive Catalyst™ updates follow Catalyst Maker on Twitter.

This release note provides information on the following:

- **Web Content**
- **AMD Product Support**
- **Operating Systems Supported**
- **New Features**
- **Performance Improvements**
- **Resolved Issues for All Windows Operating Systems**
- **Resolved Issues for the Windows 7 Operating System**
- **Resolved Issues for the Windows Vista Operating System**
- **Resolved Issues for the Windows XP Operating System**
- **Known Issues Under All Windows Operating Systems**
- **Known Issues Under the Windows 7 Operating System**
- **Known Issues Under the Windows Vista Operating System**
- **Installing the Catalyst™ Vista Software Driver**
- **Catalyst™ Crew Driver Feedback**
Web Content

The Catalyst™ Software Suite 9.12 contains the following:

- Radeon™ display driver 8.681
- HydraVision™ for both Windows XP, Vista and Windows 7
- WDM Driver Install Bundle
- Southbridge/IXP Driver
- Catalyst™ Control Center Version 8.681

**Caution:** The Catalyst™ software driver and the Catalyst™ Control Center can be downloaded independently of each other. However, for maximum stability and performance AMD recommends that both components be updated from the same Catalyst™ release.

**Caution:** The Catalyst™ Control Center requires that the Microsoft .NET Framework SP1 be installed. Without .NET SP1 installed, the Catalyst™ Control Center will not launch properly and the user will see an error message.

**Note:** These release notes provide information on the Radeon™ display driver only. For information on the ATI Multimedia Center™, HydraVision™, HydraVision Basic Edition, WDM, Remote Wonder™, or the Southbridge/IXP driver, please refer to their respective release notes found at: [http://support.amd.com/](http://support.amd.com/).

**Note:** Although listed in the documentation, ADL_Adapter_ClockInfo_Get is not available in the current version of the ADL. The code for obtaining the clock information was excluded due to inaccurate information being reported when the card is over-clocked. Future updates of ADL SDK will reflect this change. As an alternative, ADL_Overdrive5_ODParameters_Get() can be used but this API is only supported on R600 and above ASICs.

**Note:** The Drag and Drop Transcoding feature is a beta level feature provided only for evaluation purposes. **Note:** The Drag and Drop Transcoding feature is only supported on single and dual core CPUs, and supported on devices that support Media Transfer Protocol (MTP).
Note: ATI Eyefinity technology gives gamers access to incredibly high display resolutions. As pixel count grows, the graphics horsepower required to drive the displays at a reasonable frame rate can increase dramatically. Depending on the game and system configuration, users may notice texture corruption and reduced frame rates when running games in multi-monitor Eyefinity modes.

AMD Product Support

The Catalyst™ Vista driver for both the 32bit and 64bit versions of the Microsoft Windows Vista operating system is supported on the following ATI Radeon™ products.

### AMD Desktop Product Family Support

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<td>ATI Radeon™ HD 5900 Series</td>
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### AMD Multimedia Family Product Support

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<td>ATI All-in-Wonder™ HD</td>
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<td>ATI Theater™ HD 750</td>
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Note: Catalyst™ 9.12 adds TV/Capture driver support for many ATI Theater 600 and ATI Theater 650 products under Windows 7 (in addition to ATI Theater HD 750). Windows 7 TV/Capture functionality is currently NOT supported by Catalyst™ 9.12 for the following products only: ATI All-in-Wonder HD, ATI TV Wonder 650 Combo USB, and ATI TV Wonder 600 USB.

### AMD FireStream™ Product Family Support
Operating Systems Supported

The latest version of the Catalyst™ software suite is designed to support the following Microsoft Windows platforms:

- Windows 7 32-bit version
- Windows 7 64-bit version
- Windows Vista 32-bit version
- Windows Vista 64-bit version
- Windows XP Professional
- Windows XP Home Edition
- Windows XP Media Center Edition
- Windows XP Professional x64 Edition

Note: When installing the Catalyst™ driver for Windows, the user must be logged on as Administrator or have Administrator rights in order to successfully complete the installation of the Catalyst™ driver.

New Features

This section provides information on new features found in this release of the Radeon™ Display Driver. These include the following:

- ATI Catalyst™ support for DirectCompute 10.1
- OpenGL 3.2 extension support

ATI Catalyst™ support for DirectCompute 10.1

This release of ATI Catalyst™ provides full support for DirectCompute 10.1 for the ATI Radeon™ HD 4800 Series, ATI Radeon™ HD 4700 Series for both single card and ATI CrossFireX™ supported configurations.

OpenGL 3.2 extension support
This release of ATI Catalyst™ provides support for OpenGL 3.2 extension support on the ATI Radeon™ HD 5800 Series, ATI Radeon™ HD 5700 Series, ATI Radeon™ HD 4000 Series, ATI Radeon™ HD 3000 Series and ATI Radeon™ HD 2000 Series. The following is a list of OpenGL™ 3.2 features and extensions added in ATI Catalyst™ 9.12:

- Support for OpenGL Shading Language 1.50
- BGRA vertex component ordering (GL_ARB_vertex_array_bgra)
- Drawing commands allowing modification of the base vertex index (GL_ARB_draw_elements_base_vertex)
- Shader fragment coordinate convention control (GL_ARB_fragment_coord_conventions)
- Provoking vertex control (GL_ARB_provoking_vertex)
- Seamless cube map filtering (GL_ARB_seamless_cube_map)
- Multisampled textures and texture samplers for specific sample locations (GL_ARB_texture_multisample)
- Fragment depth clamping (GL_ARB_depth_clamp)
- Geometry shaders (GL_ARB_geometry_shader4)
- Fence sync objects (GL_ARB_sync)
- transform_feedback2
- texture_cube_map_array

**Performance Improvements**

The following performance gains are noticed with this release of Catalyst™ 9.12:

- **3DMark Vantage** – overall performance improves as much as 9% on ATI Radeon HD 5800 and ATI Radeon HD 5700 series products. GT1 – Jane Nash performance improves as much as 15% and FT4 – GPU Cloth improves up to 15%

- **S.T.A.L.K.E.R. – Call of Pripyat** – Performance improves as much as 6% on single card configurations

**Resolved Issues for All Windows Operating Systems**

This section provides information on resolved issues in this release of the ATI Catalyst™ Software Suite for Windows. These include:

- Confirmation dialog box is now displayed when extending the display through Catalyst Control Center
- Catalyst Control Center: all supported resolutions are now displayed in the Desktop Properties panel
- A confirmation dialog is now displayed when setting up an Eyefinity group
Resolved Issues for the Windows 7 Operating System

This section provides information on resolved issues in this release of the ATI Catalyst™ Software Suite for Windows 7. These include:

- Sound output from Display Port audio is now heard with extended mode configurations with VGA or DVI panels
- Cyberlink PowerDVD 9: setting the "Allow PowerDVD to automatically disable Windows Aero to optimize Blu-Ray playback" no longer causes the system to become unresponsive during Blu-ray playback
- Cyberlink PowerDVD: Blu-ray playback video no longer fails to render when swapping primary displays in a multi-monitor configuration
- Corruption no longer observed with some DX9 applications when Anti-Alias 8x is enabled.
- WinDVD10: Blu-ray playback will now start and does not require the application has been minimized and restored
- Resident Evil 5 Japanese version is now supported
- Playing back Blu-Ray content on some system with 120 Hz display no longer results in black screen playback
- Changing desktop resolution no longer causes the Operating System to stop responding when real-time protection is enabled in Microsoft Security Essentials
- Resolved: IL2 - Sturmovik Forgotten Battles game may stop responding or not free up system resources
- Resolved intermittently system instability when hot unplugging a HDMI display

Resolved Issues for the Windows Vista Operating System

This section provides information on resolved issues in this release of the ATI Catalyst™ Software Suite for Windows Vista. These include:

- Video artifacts no longer occur when playing two or more SD video files with hardware accelerated Adobe Flash player
- WinDVD 8 no longer stops responding when resuming from sleep or hibernate
Resolved Issues for the Windows XP Operating System

This section provides information on resolved issues in this release of the ATI Catalyst™ Software Suite for Windows XP. These include:

- Tom Clancy's HAWX: VPU recover no longer occurs in some CrossFire configurations
- In some Clone Mode configuration with Windows XP, stretched desktop is now functional

Known Issues Under All Windows Operating Systems

The following section provides a summary of open issues that may be experienced under the Windows operating system in the latest version of Catalyst™. These include:

- Setting Eyefinity group may not work for some configurations with DVI and Display Port devices
- Hot unplugging one of the displays in an Eyefinity configuration may cause the some rotation modes to disappear from Catalyst Control Center

Known Issues Under the Windows 7 Operating System

The following section provides a summary of open issues that may be experienced under the Windows 7 operating system in the latest version of Catalyst™. These include:

- On some configurations Ubisoft Wheelman may stop responding during gameplay
- Catalyst Control Center: enabling LCD overdrive may cause magnification of the mouse cursor when moved overtop of the Calibration Preview
- Adobe Flash player 10.1 Pre-release: dropped frames and browser lag may be noticed when playing multiple instances of Youtube clips with hardware acceleration enabled
- A performance drop does occur during Resident Evil 5 cinematics
- No sound output on HDMI when playing back some Blu-Ray content in Power DVD 9
Catalyst Control Center: newly added custom modes may fail to be displayed in desktop tree view

Loss of HDMI signal may occur on some HDMI TVs, on rescan of the HDMI signal it may appear in the wrong screen location.

Cyberling Power DVD 9: DTS TrueHD option may not be visible in the HDMI tab on some systems.

City of Heros: with certain graphics adapters some screen flashing might be observed during game play

Known Issues Under the Windows Vista Operating System

The following section provides a summary of open issues that may be experienced under the Windows Vista operating system in the latest version of Catalyst™. These include:

- Playing some Flash content with hardware acceleration enabled might result in video edges not appearing smooth
- WinDVD 10 may stop responding when moved to an extended display in a multi-monitor setup
- No audio when hotplugging HDMI display while media file is being played

Installing the Catalyst™ Vista Software Driver

For further information and general help on software driver installation, game issues, and more, visit AMD Customer Care.

Installation information can be found at: How to Install Your ATI Product.

Catalyst™ Crew Driver Feedback

This driver release incorporates suggestions received through the Catalyst™ CREW Driver Feedback program. To provide us with your feedback, visit Catalyst™ Crew Driver Feedback.