Catalyst™ Control Center

The Catalyst™ Control Center is a graphical user application providing access to the display features contained within the installed ATI based hardware and software. Use the Catalyst™ Control Center to fine-tune your graphics settings, enable or disable connected display devices, and change the orientation of your desktop. Many of the features show you a preview of the changes before they are applied.

The Catalyst™ Control Center offers you two views of the software:

- Standard View is a simplified view that includes wizards to get the inexperience user up and running.
- Advance View allows the advanced user to access and configure the complete feature set of the software.

The Catalyst™ Control Center can be customized for easy access to the features you use most.

Use the Catalyst™ Control Center to access a comprehensive online help system, or connect to the ATI Web site.

Catalyst™ Control Center can be launched from one of the following access points:

- Windows® Start Menu
- Windows® System Tray
- Desktop Shortcuts
- Predefined Hotkeys

Launching Catalyst™ Control Center Using the Start Menu

From the Windows® task bar, click **Start**:

- Click to **All Programs** > **ATI Catalyst™** Control Center > **ATI Catalyst™** Control Center.

Other Quick Launch Access Points

Launching Catalyst™ Control Center Using the System Tray

1. Right-click the ATI icon in the Windows® System Tray
2. Select Catalyst™ Control Center from the popup menu.

Launching Catalyst™ Control Center Using the Desktop Shortcut

When you first installed Catalyst™ Control Center the setup wizard provided you with the option of placing a shortcut on the desktop.

- Double-click the Catalyst™ Control Center desktop shortcut.

Launching Catalyst™ Control Center Using Hot Keys

- You can press predefined **F7** help key or combination of keys such as **Ctrl+Alt+C,** or you can define your hot key by using the Hotkey Manager.

Catalyst™ Control Center Dialog

Catalyst™ Control Center: Advanced View

Catalyst™ Control Center Dashboard

The Catalyst™ Control Center Dashboard is a graphical representation of the display features of the installed ATI based hardware and software. Use the Dashboard to fine-tune your graphic settings, enable or disable connected display devices, and change the orientation of your desktop. Many features present you with a preview of your changes before they are applied.

The Dashboard offers you two views of the software:

- Standard View is a simplified view that includes wizards to get the inexperience user up and running.
- Advanced View is for the more experienced user, giving access to the complete feature set of the software.

Use the Dashboard to access a comprehensive online help system, create a hot key, or customize the way you view the Catalyst™ Control Center.

The Dashboard includes:

- Views
- Hot keys
- Profiles
- Preferences
- Help

Switch Views

Click **View** and select either Standard, Advanced, or Custom View.

Create a Custom View

1. Click **View** and select **Define Custom View**.
2. In the **Define a Custom View** dialog, click the plus sign beside the graphics card name to expand the tree view.
3. Select the check box next to each aspect you wish to add to your custom view.
4. Click **OK** to save the changes.

Hotkeys Manager

The Hotkeys Manager allows you to create shortcut key combinations to quickly perform tasks such as changing a graphics setting or opening an application. A hot key is a combination of one or more modifier keys, such as Ctrl, Alt, or Shift, and any letter from the alphabet.

Display Hotkeys Manager

1. Click **Hotkeys** in the Dashboard.
2. Select **Hotkeys Manager**.

Enable Hotkeys feature

1. Open **Hotkeys Manager.**
2. Select the **Enable Hotkeys feature** check box**.**

Edit an existing hot key

1. Open **Hotkeys Manager.**

2 Select an option from the **List Hotkeys for** drop-down menu.

- Optionally, select an aspect from the **According to** list.

3 Click a hot key to edit.

4 Click **Edit** button.

5 Choose a modifier.

6 Enter any letter of the alphabet.

7 Click the **OK** button to save your changes.

Note: A hot key character is restricted to letters of the alphabet.

Create a list of active hot keys

1 Open **Hotkeys Manager.**

2 Select an option from the **List Hotkeys for** drop-down menu.

- Optionally, select an aspect from the **According to** list.

3 Select the hot key actions you want active.

Note: A hot key action must have a hot key assigned to it before the hot key can be made active.

See a list of active hot keys only

1 Open **Hotkeys Manager.**

2 Click **List active Hotkeys only.**

3 Select an option from the **List Hotkeys for** drop-down menu.

- Optionally, select an aspect from the **According to** list.

Sort hot keys

Hot keys can be sorted by their state, actions, or key combination.

1 Open **Hotkeys Manager**

- Click **Active** button to sort by state.
- Click **Hotkeys Actions** button to sort by action.
- Click **Hotkeys** button to sort by key combination.

2 Clicking the respective button toggles ascending/descending sort order.

Apply a hot key

- Press and hold down the modifier(s) keys, then press the assigned keyboard key.

For example: press and hold down the Ctrl and Alt keys, then press the C key.

Profiles Manager

Use profiles to create customized environments for your desktop, video, and 3D applications. Define and save into a profile your own personal video settings that can be quickly activated manually, through a hot key, or by file association.

> **Note:** A profile applies to a specific graphics card. If there is more than one graphics card installed in your computer, you need to select the appropriate card before creating, loading, or activating a profile.

Display Profiles Manager

1. Click **Profiles** in the Dashboard.
2. Select **Profiles Manager**.

Create a profile

A profile can be created from any aspect of Catalyst™ Control Center.

1. Make customized changes by adjusting the various sliders and buttons for the aspects to be included in your profile.
2. Open the **Profiles Manager**.
3. Enter a name for your Profile in **Create or Edit Profile**.
4. Enter a description of the profile.
5. Select the composition, activation, and applications options that you wish to apply to the profile.
6. Click **Save.**

Set the composition of the profile

1. Open the **Profiles Manager.**
2. Click the **Composition** tab.
3. Select the options to be included in the profile.

- **all Catalyst™** Control Center **settings** applies the available settings for all graphics adapters.
- **the following settings** applies only the settings selected in the treeview.

Activate a profile

1. Open the **Profiles Manager**.
2. Select a profile from **Create or Edit a Profile** drop-down menu.
3. Click the **Activation** tab.
4. Set a profile to activate manually:
    - Click **Manually by** then select your preferred method for activating a profile. For example, a shortcut on your desktop.
    - If you choose **Hotkeys assignment**, select a Hot key modifier and a keyboard key.

Activate an application, file, or shortcut when a profile is started

1. Open the **Profiles Manager**.
2. Click the **Applications** tab.
3. Click **opens the following application, file or shortcut**.
4. Click the browse ("...") button and browse to the file you want associated with your profile.
5. Click on the file name, then click **Open** to select the file.

Save a profile

1. Open the **Profiles Manager**.
2. Enter a name for the profile in the **Enter or select a profile name** box.
3. Select options for the profile.
4. Click **Save**.
5. Click the **Activate & Close** button to apply the saved profile and close the Profiles Manager.
    - Optionally, click the **Activate** button to apply the saved profile but leave the Profiles Manager open.
    - Optionally, click the **Close** button to close the Profiles Manager without applying the saved Profile.

Delete a profile

1. Open the **Profile Manager.**
2. Select a profile from the **Create or Edit a Profile** drop-down menu.
3. Click **Delete.**
4. Click **OK** to confirm.

Preferences

Use the Preferences page to restore factory defaults, change skins, or enable/disable the System Tray icon.

The Catalyst™ Control Center Preferences page contains the following options:

- Hide Tooltips
- Always on Top
- Enable System Tray menu
- Restore factory defaults
- Show Toolbar Text
- Select a Language
- Select a Skin

Keep Catalyst™ Control Center Always on Top of all open applications on the desktop

1. Click **Preferences** button in the Dashboard.
2. Click **Always on Top.**

   Note: When a check mark appears next to Always on Top the Catalyst™ Control Center will always appear on top of all opened applications.

Hide or show Tooltips

1. Click the **Preferences** button in the Dashboard.
2. Click **Hide Tooltips** in the drop-down menu.

   Note: When a check mark appears next to Hide Tooltips, all Tooltips are disabled.

Show or hide text that appears on the toolbar buttons

1. Click **Preferences** button in the Dashboard.
2. Click **Hide Toolbar Text** in the drop-down menu.

   Note: When a check mark appears next to Hide Toolbar Text the toolbar buttons have button icons only.

Hide the Catalyst™ Control Center Splash Screen

1. Click the **Preferences** button in the Dashboard.
2. Click **Hide Splash Screen.**

   Note: When a check mark appears next to Hide Splash Screen the Catalyst™ Control Center splash screen will not appear during start up.

Show or hide the Catalyst™ Control Center icon in the Windows® System Tray

1. Click **Preferences** button in the Dashboard.
2. Click **Enable System Tray menu** in the drop-down menu.

   Note: When a check mark appears next to Enable System Tray Menu the Catalyst™ Control Center icon appears in the Windows® System Tray.

Change Catalyst™ Control Center language

1. Click **Preferences** in the Dashboard.
2. Click **Select a Language** in the drop-down menu.
3. Choose a language from the list.
4. Click **OK**.
5. Restart Catalyst™ Control Center.

Change the appearance of the Catalyst™ Control Center

1. Click **Preferences** in the Dashboard.
2. Click **Select a skin** in the drop-down menu.
3. Choose a skin from the **Skin** drop-down menu.
4. Click **OK**.

Restore Catalyst™ Control Center to the factory default settings

1. Click **Preferences** in the Dashboard.
2. Select **Restore factory defaults** in the drop-down menu.
3. Click **Yes**.

Help

Use the Catalyst™ Control Center Help feature to access the comprehensive online help system, generate a Problem Report, and get the installed version information.

Display help for the aspect or feature you are using

1. Click the **Help** button in the Dashboard.
2. Select **Help for this Page.**
    - Optionally, click anywhere in the aspect or feature you are using and press the **F1** key.

Display the online help

1. Click the **Help** button in the Dashboard.
2. Click **Help Contents.**

Search for Help

1. Click the **Help** button in the Dashboard.
2. Click **Search Help.**
3. Enter the word(s) you wish to search for the in search box of the Catalyst™ Control Center Help.
4. Click **Go**.

Display the version of the installed Catalyst™ Control Center

1. Click the **Help** button in the Dashboard.
2. Click **About Catalyst™** Control Center**.**

Information Center

The Information Center provides detailed information about the installed graphics hardware and associated software.

- **Graphics Software** includes information such as installed 2D and 3D driver versions, OpenGL® version, and Catalyst™ Control Center version.
- **Graphics Hardware** includes information about each installed graphics card, such as the installed graphics chipset, device ID, bus type, memory size, and BIOS version.

Catalyst™ Control Center: Information Center - Graphics Software (Sample)

To access the Information Center

- Expand **Information Center** in the treeview of Advanced View and select either Graphic Software or Graphic Hardware.

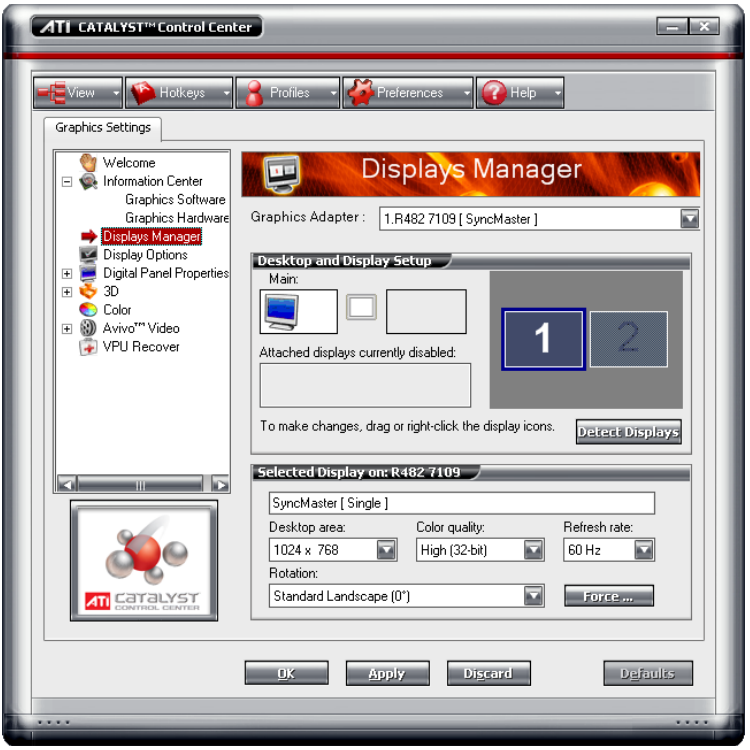
To access system information

- Click the **System Information** button to open the Windows® System Information.

The Displays Manager aspect is the central location for configuring your display devices and arranging your desktop. Use the Displays Manager aspect to quickly change your display setup, arrange your desktop in a multi-monitor environment, and enable TV Out.

Those new to the Catalyst™ Control Center may use the Standard View wizard to help you configure your display preferences. Experienced users

who prefer to manually configure their desktop setting should use the Advanced View.



Catalyst™ Control Center: Displays Manager

Displays Manager Advanced View

Use Display Manager Advanced View to set your desktop resolution, the display refresh rate, and arrange your displays.

To change your display configuration requires dragging and/or clicking or right-clicking a display icon

Enable Displays Manager Advanced View

1. Click **View** to switch to Advanced View.
2. From the Tree Menu, click **Displays Manager** to display the settings view**.**

Enable a secondary display device

1. Click **Displays Manager** in Advanced View.
2. Click the number 2 display icon in the right-hand box.
3. Click **Yes** to the **Enable this display** dialog**.**
    - Optionally, right-click the number 2 icon in the right-hand box and click **Enable** in the pop-up menu.

    Note: Repeat steps 2 and 3 above for each additional connected device. The number on the display icon will increase as more displays are added.

Enable Extended Mode

If the secondary display is disabled:

1. Click **Displays Manager** in Advanced View.
2. Click the number 2 display icon in the right-hand box.
3. Click **Yes** to the **Enable this display?** dialog**.**
    - Optionally, right-click the number 2 icon in the right-hand box and click **Enable** in the pop-up menu.

If the secondary display is in Clone mode, Vertical or Horizontal Stretch mode:

1. Click and drag the display icon from the Clone box to **Additional Displays** box.
2. Release the mouse button and click **Remove display.**
    - Optionally, right-click the number 2 icon in the right-hand box and click **Disable** in the pop-up menu.
3. Click the number 2 icon in the right-hand box.
4. Click **Yes** to the **Enable this display?** dialog**.**

Enable Clone Mode

If the secondary device is disabled:

1. Click **Displays Manager** in Advanced View.
2. Click and drag the display device icon in Additional Displays to the empty box to the right of the **Main** box.
3. Click **Clone Main with [display device]** in the pop-up menu.

If the secondary display is enabled:

1. Right click the display device icon in Desktop 2 when in Extended mode, Rightmost when in Stretch Horizontal mode, or Lower in Stretch Vertical mode.
2. Click **Clone Main with [display device].**
3. Click **Yes** to the Displays Manager Notification dialog.

Note: Display device can be CRT, DFP, TV, or HDTV.

Enable Stretch Main Vertically

If the secondary display is disabled:

1. Click **Displays Manager** in Advanced View.
2. Click and drag the display device icon from Additional Displays to the empty box to the right of the **Main** box.
3. Click **Stretch vertically onto [display device]** in the pop-up menu.
4. Click **Yes** in the Displays Manager Notification dialog.

If the secondary display is enabled:

1. Right click the display device icon in Desktop 2 when in Extended mode, Rightmost when in Stretch Horizontal mode, or Clone in Clone mode.
2. Click **Stretch vertically onto [display device]** in the pop-up menu.
3. Click **Yes** in the Displays Manager Notification dialog.

Note: Display device can be CRT, DFP, TV, or HDTV.

Enable Stretch Main Horizontally

If the secondary display is disabled:

1. Click **Displays Manager** in Advanced View.
2. Click and drag the display device icon from Additional Displays to the empty box to the right of the **Main** box.
3. Click **Stretch horizontally onto [display device]**.

If the secondary display is enabled:

1. Right click the display device icon in Desktop 2 when in Extended mode, or Lower in Stretch Vertical mode, or Clone in Clone Mode.

2 Click **Stretch horizontally onto [display device]** in the pop-up menu.

3 Click **Yes** to the Displays Manager Notification dialog.

Note: Display device can be CRT, DFP, TV, or HDTV depending on the device connection.

Swap displays in Extended Mode

Use Swap displays to switch your desktops when using multiple monitors.

1 Click **Displays Manager** in Advanced View.

2 Right-click any Desktop icon.

3 Select **Swap displays**.

4 Click either **Maintain per-display mode settings** or **Swap displays order only**.

Note: Swap displays order only swaps displays while maintaining the existing display settings. **Maintain per-display mode settings** swaps displays and display settings.

Swap displays in all other modes

Use **Swap display mappings** to switch your desktops when using multiple monitors.

1 Click **Displays Manager** in Advanced mode.

2 Right-click any Desktop icon.

3 Select **Swap display mapping**.

Change desktop size

1 Click **Displays Manager** in Advanced View.

2 Select a size from the **Desktop Area** drop-down menu.

Change Color quality

1 Click **Displays Manager** in Advanced View.

2 Select the desired color setting from the **Color Quality** drop-down menu.

Change display refresh rate

1 Click **Displays Manager** in Advanced View.

2 Choose a refresh rate from the **Refresh Rate** drop-down menu.

Note: See your monitor manual for supported refresh rates. Setting a refresh rate higher than recommended by the monitor manufacturer could damage the monitor.

Rotate the desktop

1 Click **Displays Manager** in Advanced View.

2 Right-click the desktop monitor icon to be rotated.

3 Select a rotation option from the pop-up menu.

- Optionally, select a rotation angle from the Rotation drop-down menu.

Detect a newly connected display device

Detect a display device, such as a Digital Flat Panel or TV without having to restart your computer

1 Click **Displays Manager** in Advanced View.

2 Click **Detect Displays** button.

Force changes to a specific display setting

You can force the Catalyst™ Control Center to override the display settings required, or not allowed, by a specific application.

1 Click **Displays Manager** in Advanced view.

2 Click the **Force** button.

3 Use the mouse to cursor over to the display feature to force.

4 Highlight and then click the required setting.

Apply your settings

1 Click **Apply** to save your changes and leave the Catalyst™ Control Center open.

2 Click **OK** to save your changes and exit the Catalyst™ Control Center.

Discard your settings

- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

Display Options

The Display Options aspect gives you additional control to optimize performance of OpenGL® and Direct 3D® applications.

Use 3D Refresh Rate Override to set a refresh rate of your choice when a full-screen application or game has a default refresh rate that is lower than optimal.

Choose one of the Display Detection Options to prevent screen flicker when detecting a display.

If you are using an older TV or one that has non-standard inputs that may not be automatically detected, use **Force TV Detection**. When a TV is detected using this method, it appears in the Displays Manager aspect and can be configured as required. However, some features that rely on automatic detection, such as extended desktop, will not be supported.

To access the Display Options aspect

- Select **Display Options** in Advanced View.

Catalyst™ Control Center: Display Options

Select a refresh rate override

Some applications may have a default refresh rate lower than the optimal setting for your monitor. 3D Refresh Rate Override enables you to set the refresh rate for full-screen applications or games utilizing Microsoft® DirectX® or OpenGL®. You can either set an explicit refresh rate, or make the refresh rate the same as the desktop, or disable this feature allowing the application to set the refresh rate.

1. Click **Display Options** in Advanced View.
2. Select the desired refresh rate from the **3D Refresh Rate Override** drop-down menu.

Determine how display devices are detected

Use this feature to determine how the Catalyst™ Control Center detects display devices connected to your computer. You can set the Catalyst™ Control Center to automatically detect all connected display devices when it is opened or you can manually detect connected devices when they are required.

1. Click **Display Options** in Advanced View.
2. Click either
   - **Detect whenever Catalyst™** Control Center **is opened.**

   or
   - **Use manual detection only (I must click Detect Displays button)**.

   Note: The Detect Displays button is located on the **Displays Manager** page.

Force TV detection

Use **Force TV detection** if your TV is not automatically detected by the Catalyst™ Control Center and does not appear in the Displays Manager page. This may be the case if your TV has non-standard inputs.

Note: If **Force TV detection** is required to detect your TV some features that rely on automatic detection, such as extended desktop, will not be supported.

1. Click **Display Options** in Advanced View.
2. Click **Force TV detection** enables this feature.

   Note: This option is not available if the installed graphics card does not support TV Out.

Set resolution modes for devices with limited resolution capabilities

1. Click **Display Options** in Advanced View.
2. Select one of the following from the **For displays of limited resolution capabilities** drop-down menu:
   - List only those modes supported by all displays
   - Only allow panning on limited-resolution displays
   - List all possible modes (including panning modes).

Apply your settings

1. Click **Apply** to save your changes and leave the Catalyst™ Control Center open.
2. Click **OK** to save your changes and exit the Catalyst™ Control Center.

Discard your settings

- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

Restore default settings

1. Move the mouse to the bottom right-hand corner of the window.
2. Click **Defaults**.

Note: Clicking **Defaults** will restore the defaults for the current view only. Previous settings are not altered and will be saved once you click **OK**.

Monitor Properties

Use the Monitor Properties aspect to configure your Display Data Channel (DDC) monitor's attributes, to display information about the connected monitor, and adjust the output display's position and size.

Note: Catalyst™ Control Center loads aspects dynamically based on what device is attached to the graphics card. If you have a display device other than a standard monitor or flat panel display (such as a HDTV screen) *Digital Panel Properties* will appear in the Graphics Settings listing instead of *Monitor Properties*.

To access the Monitor Properties aspect

- Select **Monitor Properties** in Advanced View.

Catalyst™ Control Center: Monitor Properties (Sample)

Monitor Attributes

Monitor Attributes provides information about the attached monitor. You can also enable Extended Display Identification Data.

Extended Display Identification Data (EDID) uses the information provided by the attached monitor to determine the limits for the resolution and refresh rate.

Enable Extended Display Identification Data (EDID)

1. Expand **Monitor Properties** in Advanced View.
2. Click **Attributes.**
3. Select **Use Extended Display Identification Data (EDID) or driver defaults** to place a check mark in the check box**.**

Apply your settings

1. Click **Apply** to save your changes and leave the Catalyst™ Control Center open.
2. Click **OK** to save your changes and exit the Catalyst™ Control Center.

Restore default settings

1. Move the mouse to the bottom right-hand corner of the window.
2. Click **Defaults**.

   Note: Clicking **Defaults** will restore the defaults for the current view only. Previous settings are not altered and will be saved once you click **OK**.

Discard your settings

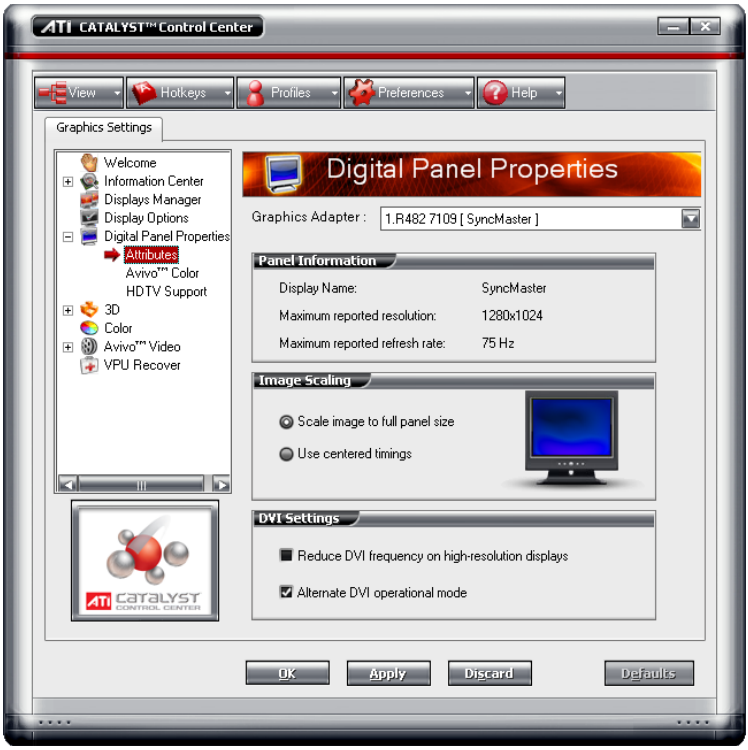
- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

Digital Panel Properties

Use the Digital Panel Properties aspect to configure the DVI settings and Image Scaling to improve image quality without impacting performance. Use HDTV Support to add EDID information (containing information about the capabilities of the display) about your connected HDTV display to the **Force** button in Displays Manager.

Note: Catalyst™ Control Center loads aspects dynamically based on what device is attached to the graphics card. If you have standard display device such as a CRT monitor or flat panel display *Monitor Properties* will appear instead of *Digital Panel Properties*. The latter is designed for use with such devices as HDTV displays.



Catalyst™ Control Center: Digital Panel Properties (Sample)

Attributes

Digital Panel Attributes provides information about the connected digital display. Use DVI Settings and Image Scaling to configure your digital display.

Set Image Scaling

1. Expand **Digital Panel Properties** in Advanced View.
2. Click **Attributes.**
3. Under Image Scaling, click to enable the desired setting.

   Note: Enable **Scale image to full panel size** to fill the digital display.

Note: **Use centered timings** optimizes the display timing standards used on a high-end digital panel. Enable this feature to stop display flicker.

Adjust the DVI Settings

1. Expand **Digital Panel Properties** in Advanced View.
2. Click **Attributes**.
3. Under DVI Settings, click to enable the desired setting.

Note: Reducing DVI frequency on high-resolution displays can resolve either display corruption or the complete absence of any image when a display is set to a high resolution. This should only be enabled if the Digital Panel is experiencing these types of problems.

Note: Alternate DVI operational mode, when enabled, may eliminate display corruption.

Apply your settings

1. Click **Apply** to save your changes and leave the Catalyst™ Control Center open.
2. Click **OK** to save your changes and exit the Catalyst™ Control Center.

Restore default settings

1. Move the mouse to the bottom right-hand corner of the window.
2. Click **Defaults**.

Note: Clicking **Defaults** will restore the defaults for the current view only. Previous settings are not altered and will be saved once you click **OK**.

Discard your settings

- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

Avivo™ Color

Use Avivo™ Color for ATI graphics cards that supports per-display color settings. Independently set the hue, saturation, and color temperature for each attached and enabled display.

Adjust Hue

Refers to a specific color within the visible spectrum of light, defined by its dominant wavelength.

1. Expand **Digital Panel Properties** in Advanced View.
2. Click **Avivo™ Color.**
3. Adjust the **Hue** control slider to the desired position.

Adjust Saturation

Saturation refers to the intensity of a color in an image.

1. Expand **Digital Panel Properties** in Advanced View**.**
2. Click **Avivo™ Color.**
3. Click and drag the **Saturation** control slider to the desired position.

Adjust Color Temperature

Color temperature is a measure that compares a color to the light radiated from an equivalent incandescent black body at a given temperature in degrees Kelvin.

1. Expand **Digital Panel Properties** in Advanced View**.**
2. Click **Avivo™ Color.**
3. Adjust the Temperature control slider to the desired position.

Apply your settings

1. Click **Apply** to save your changes and leave the Catalyst™ Control Center open.
2. Click **OK** to save your changes and exit the Catalyst™ Control Center.

Restore default settings

1. Move the mouse to the bottom right-hand corner of the window.
2. Click **Defaults**.

Note: Clicking **Defaults** will restore the defaults for the current view only. Previous settings are not altered and will be saved once you click **OK**.

Discard your settings

- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

HDTV Support

Use HDTV Support when your CRT or DFP device supports one or more HDTV modes that are not initially listed in the Displays Manager due to an incomplete EDID. Selecting one or both of the HDTV modes adds them to the Force button located in the Displays Manager when the associated display is selected.

If you have a CRT and DFP device and want both to support HDTV, you must go to both HDTV Support pages and select both **Add 720p** and **Add 1080i** check boxes.

ⓘ **WARNING!**: Forcing a display mode that exceeds its EDID limits may result in permanent damage to your display!

Add 720p mode to the Displays Manager Force button

If the **Predefined and Custom HDTV Formats** list box is empty you can add a format.

1. Expand **Digital Panel Properties** in Advanced View.
2. Click **HDTV Support.**
3. Click **Add 720p standard format to the Displays Manager.**

ⓘ **WARNING!**: This option is only intended for displays that report incomplete or incorrect EDID information. Adding this setting could damage your digital flat panel display. USE WITH CAUTION!

Add 1080i mode to the Displays Manager Force button

If the **Predefined and Custom HDTV Formats** list box is empty you can add a format.

1. Expand **Digital Panel Properties** in Advanced View.
2. Click **HDTV Support.**
3. Click **Add 1080i standard format to the Displays Manager.**

> ⓘ **WARNING!**: This option is only intended for displays that report incomplete or incorrect EDID information. Adding this setting could damage your digital flat panel display. USE WITH CAUTION!

Add 1080p mode to the Displays Manager Force button

If the **Predefined and Custom HDTV Formats** list box is empty you can add a format.

1. Expand **Digital Panel Properties** in Advanced View.
2. Click **HDTV Support.**
3. Click **Add 1080p standard format to the Displays Manager.**

> ⓘ **WARNING!**: This option is only intended for displays that report incomplete or incorrect EDID information. Adding this setting could damage your digital flat panel display. USE WITH CAUTION!

Add an HDTV format

The **Predefined and Custom HDTV Formats** list box should list any standard and optimized HDTV formats supported by the digital panel's EDID. If the list is empty, then no HDTV formats are natively supported.

1. Expand **Digital Panel Properties** in Advanced View.
2. Click **HDTV Support.**
3. Select either 720p or 1080i in **HDTV modes supported by this display**.
4. Click **Apply formats**.
5. Click **Add**.

- A group of four arrow buttons and a large rectangle is overlaid on the screen. Use these arrows to increase or decrease the width and height of the rectangle until the blue background is just visible.
- Click **Maintain aspect ratio** to maintain the ratio between width and height while making adjustments.

6 Click **Accept**.

7 Click **OK** in the HDTV Format warning message box.

8 Click **Apply** to add your new HDTV format to the Predefined and Custom HDTV Formats list and the Displays Manager mode list.

Note: The format to be added must be based on one of the standard timing formats (720p or 1080i).

Remove an HDTV Format

1 Expand **Digital Panel Properties** in Advanced View.

2 Click **HDTV Support.**

3 Click to highlight the HDTV format to be removed in the Predefined and Custom HDTV Formats list box.

4 Click **Remove** button.

Note: The removed format will be removed from the Displays Manager mode list once the computer has been rebooted.

Apply HDTV Format

1 Expand **Digital Panel Properties** in Advanced View.

2 Click **HDTV Support.**

3 Click to highlight the desired an HDTV format in the **Predefined and Custom HDTV Formats** list box.

4 Click **Apply Format**.

Apply your settings

1 Click **Apply** to save your changes and leave the Catalyst™ Control Center open.

2 Click **OK** to save your changes and exit the Catalyst™ Control Center.

Restore default settings

1. Move the mouse to the bottom right-hand corner of the window.
2. Click **Defaults**.

Note: Clicking **Defaults** will restore the defaults for the current view only. Previous settings are not altered and will be saved once you click **OK**.

Discard your settings

- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

3D

Use 3D to adjust features found in 3D applications, such as graphic-design, CAD programs and games.

3D is available in the simplified standard view and advanced view. Use standard view to adjust the overall performance and quality of your graphic application. Use the advanced view to individually configure the following settings:

- Standard Settings
- Anti-aliasing
- Anisotropic Filtering
- Catalyst™ A.I.
- Mipmap Detail Level
- API-Specific

Catalyst™ Control Center: Standard Settings

Standard Settings

The **Standard settings** page provides access to a universal slider control where you can simultaneously adjust all of the standard 3D settings for any type of 3D application. The slider enables you to adjust for overall system performance, overall 3D image quality, or a balance between the two.

This page is useful when you are not aware of which type of 3D settings your application uses, or when you want to use an overall adjustment control that rapidly configures your application.

Adjust your Standard settings

The default selection is **Balanced**.

1. Click **3D** in Advanced View and click Standard Settings.
2. Select **Use custom settings** to place a check mark in the check box.

3. Click and drag the **Control** slider to the left to select High or Optimal Performance, or to the right to select High or Optimal Quality.

Preview your changes

- The preview image automatically displays your adjustments.

Optionally, double-click **3D Preview** for a full-screen view of the adjustments you have made. To exit full-screen Preview, press the **Esc** key.

The Preview can be disabled by clicking the "X" button in the Preview pane. It can also be paused by clicking the "||" button in the Preview pane. Clicking the pause button again causes the preview to resume.

Apply your settings

1. Click **Apply** to save your changes and leave the Catalyst™ Control Center open.
2. Click **OK** to save your changes and exit the Catalyst™ Control Center.

Discard your settings

- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

Restore default settings

1. Move the mouse to the bottom right-hand corner of the window.
2. Click **Defaults**.

   Note: Clicking **Defaults** will restore the defaults for the current view only. Previous settings are not altered and will be saved once you click **OK**.

Anti-aliasing

Anti-aliasing is a technique used to smooth out the jagged edges of three-dimensional curved objects or objects with diagonal edges.

Anti-aliasing can be set to favor either an increase in system processing performance or improved image quality:

- Setting for performance is best used when the 3D image is animated and smoothness of motion is the most important consideration.
- Setting for quality is best used when having highly detailed and realistic 3D objects is the primary concern.
- If you are unsure of how to configure anti-aliasing, use the **Let the Application Decide** option. Your display will automatically adjust to the application's requirements.

Set the Anti-Aliasing preference manually

1. Expand **3D** in Advanced View.
2. Click **Anti-aliasing**.
3. Ensure the application override is disabled. To do so, make sure the **Let the Application Decide** check box is cleared. The slider control will become available.
4. Click the **Control** slider and move the selector to your preferred setting:
   - To increase processing performance, move the slider to the left.
   - To increase image quality, move the slider to the right.

Set Temporal anti-aliasing

Increases image quality without impacting performance by taking fewer image samples but at a faster rate.

1. Expand **3D** in Advanced View.
2. Click **Anti-Aliasing**,
3. Select **Temporal anti-aliasing** to place a check mark in the check box.

   Note: Let the application decide must be disabled before enabling Temporal anti-aliasing.

Set the level of adaptive anti-aliasing

1. Expand **3D** in Advanced View.
2. Click **Adaptive Anti-Aliasing**.
3. Adjust the **Adaptive Anti-Aliasing** control slider to the desired setting.

Preview your changes

- The preview image automatically displays your adjustments.

Optionally, double-click **3D Preview** for a full-screen view of the adjustments you have made. To exit full-screen Preview, press the **Esc** key.

The Preview can be disabled by clicking the “X” button in the Preview pane. It can also be paused by clicking the “||” button in the Preview pane. Clicking the pause button again causes the preview to resume.

Apply your settings

1. Click **Apply** to save your changes and leave the Catalyst™ Control Center open.
2. Click **OK** to save your changes and exit the Catalyst™ Control Center.

Discard your settings

- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

Restore default settings

1. Move the mouse to the bottom right-hand corner of the window.
2. Click **Defaults**.

   Note: Clicking **Defaults** will restore the defaults for the current view only. Previous settings are not altered and will be saved once you click **OK**.

Adaptive Anti-aliasing

Adaptive anti-aliasing is a technique that applies a combination of multi-sampling (MSAA) and super-sampling (SSAA) on 3D objects to improve edge smoothness and fine detail. This feature renders 3D objects containing transparencies more realistic, providing exceptional levels of image quality while maintaining performance.

Set the level of adaptive anti-aliasing

1. Expand **3D** in Advanced View.
2. Click **Adaptive Anti-Aliasing**.
3. Adjust the **Adaptive Anti-Aliasing** control slider to the desired setting.

Anisotropic Filtering

Anisotropic filtering is a technique that preserves detail on surfaces that have three-dimensional perspective and fade away into the background. It works best when used in conjunction with Mipmapping.

Anisotropic filtering can be set to favor either an increase in system processing performance or improved image quality:

- Setting for performance is best used with applications that display objects with smooth, simple surfaces, such as those seen in CAD applications.
- Setting for quality is best used with applications that display highly detailed scenes, backgrounds, and textured objects, such as those seen in 3D games.
- If you are unsure how to configure anisotropic filtering, use the **Let the Application Decide** option. Your display will automatically adjust to the application's requirements.

Set the Anisotropic Filtering preference manually

1. Expand **3D** in Advanced View.
2. Click **Anisotropic Filtering**.
3. Ensure the application override is disabled. To do so, make sure the **Let the Application Decide** check box is cleared. The slider control will become available.
4. Click the **Control** slider and move the selector to your preferred setting:
    - To increase processing performance, move the slider to the left.
    - To increase image quality, move the slider to the right.

Set the Anisotropic Filtering to automated preference

1. Expand **3D** in Advanced View.

2 Click **Anisotropic Filtering**.

3 Ensure the application override is enabled. To do so, make sure the **Let the Application Decide** check box is selected.

Note: The slider control becomes unavailable.

Set higher quality Anisotropic Filtering

1 Expand **3D** in Advanced View.

2 Click **Anisotropic Filtering**.

3 Select **Enable High Quality AF.**

Note: Enabling this feature may impact performance.

Note: This feature is not supported by all ATI based graphics cards.

Preview your changes

- The preview image automatically displays your adjustments.

Optionally, double-click **3D Preview** for a full-screen view of the adjustments you have made. To exit full-screen Preview, press the **Esc** key.

The Preview can be disabled by clicking the “X” button in the Preview pane. It can also be paused by clicking the “||” button in the Preview pane. Clicking the pause button again causes the preview to resume.

Apply your settings

1 Click **Apply** to save your changes and leave the Catalyst™ Control Center open.

2 Click **OK** to save your changes and exit the Catalyst™ Control Center.

Discard your settings

- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

Restore default settings

1. Move the mouse to the bottom right-hand corner of the window.
2. Click **Defaults**.

   Note: Clicking **Defaults** will restore the defaults for the current view only. Previous settings are not altered and will be saved once you click **OK**.

Catalyst™ A.I.

Catalyst™ A.I. makes use of ATI's new texture analyzer technology to optimize performance in 3D applications while maintaining or even improving image quality. It analyzes individual textures as they are loaded to determine the best and fastest way to display them.

Use the Standard slider setting to achieve optimal results without impacting performance. Use the Advanced slider setting to achieve even better results with minimal impact on performance.

Catalyst™ A.I. includes application-specific detection for various games and games engines such as Doom 3, the Half Life 2 engine, Unreal Tournament 2003, Unreal Tournament 2004, Splinter Cell, Race Driver, Prince of Persia, and Crazy Taxi 3.

Disable Catalyst™ A.I.

1. Select **3D** in Advanced View.
2. Select **Catalyst™** A.I.
3. Select **Disable Catalyst™** A.I. to place a check mark in the check box**.**

Set Catalyst™ A.I. settings

1. Expand **3D** in Advanced View.
2. Click **Catalyst™** A.I.
3. If necessary, clear the check mark from Disable **Catalyst™** A.I.
4. Click and drag to slider to the desired setting.

Preview your changes

- The preview image automatically displays your adjustments.

Optionally, double-click **3D Preview** for a full-screen view of the adjustments you have made. To exit full-screen Preview, press the **Esc** key.

The Preview can be disabled by clicking the "X" button in the Preview pane. It can also be paused by clicking the "||" button in the Preview pane. Clicking the pause button again causes the preview to resume.

Apply your settings

1. Click **Apply** to save your changes and leave the Catalyst™ Control Center open.
2. Click **OK** to save your changes and exit the Catalyst™ Control Center.

Discard your settings

- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

Restore default settings

1. Move the mouse to the bottom right-hand corner of the window.
2. Click **Defaults**.

   Note: Clicking **Defaults** will restore the defaults for the current view only. Previous settings are not altered and will be saved once you click **OK**.

Mipmap Detail Level

Mipmapping is a texturing technique that preserves the detail on a 3D object's surface as it moves into the background. A series of high- and low-resolution texture maps are stored in memory and selectively used to create the object's surface, depending on what level of detail is needed.

Mipmap detail level can be set to favor either an increase in system processing performance or improved image quality:

- Setting for performance is best used when the 3D image is animated and smoothness of motion is the most important consideration.

- Setting for quality is best used when high surface detail is required, especially if the animated object rotates or moves into the background.

Adjust the Mipmap detail level

1. Expand **3D** in Advanced View.
2. Click **Mipmap Detail Level**.
3. Click the **Control** slider and move the selector to the left to increase processing performance, or to the right to increase image quality.

Preview your changes

- The preview image automatically displays your adjustments.

Optionally, double-click **3D Preview** for a full-screen view of the adjustments you have made. To exit full-screen Preview, press the **Esc** key.

The Preview can be disabled by clicking the “X” button in the Preview pane. It can also be paused by clicking the “||” button in the Preview pane. Clicking the pause button again causes the preview to resume.

Apply your settings

1. Click **Apply** to save your changes and leave the Catalyst™ Control Center open.
2. Click **OK** to save your changes and exit the Catalyst™ Control Center.

Discard your settings

- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

Restore default settings

1. Move the mouse to the bottom right-hand corner of the window.
2. Click **Defaults**.

   Note: Clicking **Defaults** will restore the defaults for the current view only. Previous settings are not altered and will be saved once you click **OK**.

Preview your changes

- The preview image automatically displays your adjustments.

Optionally, double-click **3D Preview** for a full-screen view of the adjustments you have made. To exit full-screen Preview, press the **Esc** key.

The Preview can be disabled by clicking the “X” button in the Preview pane. It can also be paused by clicking the “||” button in the Preview pane. Clicking the pause button again causes the preview to resume.

Apply your settings

1. Click **Apply** to save your changes and leave the Catalyst™ Control Center open.
2. Click **OK** to save your changes and exit the Catalyst™ Control Center.

Discard your settings

- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

Restore default settings

1. Move the mouse to the bottom right-hand corner of the window.
2. Click **Defaults**.

   Note: Clicking **Defaults** will restore the defaults for the current view only. Previous settings are not altered and will be saved once you click **OK**.

All Settings

The **All Settings** page combines all of the principal 3D features onto a single page, without any preview window, allowing for quick access and adjustment. You can change the settings for the following 3D features as you normally would on each feature’s own page:

- Anti-aliasing
- Anisotropic filtering

- Texture preference
- Mipmap detail level
- Wait for display refresh

This page is useful when it is not necessary to preview the adjusted settings because the effect is already known or understood.

Set the Anti-Aliasing preference manually

1. Expand **3D** in Advanced View.
2. Click **All Settings**.
3. Ensure the application override is disabled. To do so, make sure the **Let the Application Decide** check box is cleared. The slider control will become available.
4. Click the **Control** slider and move the selector to your preferred setting:
    - To increase processing performance, move the slider to the left.
    - To increase image quality, move the slider to the right.

Set the level of adaptive anti-aliasing

1. Expand **3D** in Advanced View.
2. Click **Adaptive Anti-Aliasing**.
3. Adjust the **Adaptive Anti-Aliasing** control slider to the desired setting.

Set the Anisotropic Filtering preference manually

1. Expand **3D** in Advanced View.
2. Click **All Settings**.
3. Ensure the application override is disabled. To do so, make sure the **Let the Application Decide** check box is cleared. The slider control will become available.
4. Click the **Control** slider and move the selector to your preferred setting:
    - To increase processing performance, move the slider to the left.
    - To increase image quality, move the slider to the right.

Set the Anisotropic Filtering to automated preference

1. Expand **3D** in Advanced View.
2. Click **All Settings**
3. Ensure the application override is enabled. To do so, make sure the **Let the Application Decide** check box is selected.

   Note: The slider control becomes unavailable.

Adjust the Catalyst™ A.I. setting

1. Expand **3D** in Advanced View.
2. Click **All Settings**.
3. Scroll to **Catalyst™** A.I.
4. Click the **Control** slider and move the selector to the left to increase processing performance, or to the right to increase image quality.

Adjust the Mipmap detail level

1. Expand **3D** in Advanced View.
2. Click **All Settings.**
3. Scroll to **Mipmap Detail Level.**
4. Click the **Control** slider and move the selector to the left to increase processing performance, or to the right to increase image quality.

Adjust Wait for vertical refresh setting

1. Expand **3D** in Advanced View.
2. Click **All Settings.**
3. Scroll to **Wait for vertical refresh**.
4. Click the **Control** slider and move the selector to the left to increase processing performance, or to the right to increase image quality.

Apply your settings

1. Click **Apply** to save your changes and leave the Catalyst™ Control Center open.
2. Click **OK** to save your changes and exit the Catalyst™ Control Center.

Discard your settings

- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

Restore default settings

1. Move the mouse to the bottom right-hand corner of the window.
2. Click **Defaults**.

   Note: Clicking **Defaults** will restore the defaults for the current view only. Previous settings are not altered and will be saved once you click **OK**.

API Specific

Use the **API Specific** dialog to select settings that are exclusively for the Direct 3D® and OpenGL® Application Programmable Interfaces (API). These settings are provided for resolving certain incompatibilities within 3D applications that use one of these APIs.

Use this dialog when you are know which type of API (Direct 3D® or OpenGL®) your 3D application uses, and you want to select a particular API-specific feature.

If you are not sure which API your 3D application uses, consult the documentation of your 3D application.

Set Enable geometry instancing

Geometry Instancing allows the GPU to create multiple objects from a single geometric model, rather than passing an entire new model for each item on the screen. This increases the rendering speed of images such as leaves, or grass.

1. Expand **3D** in Advanced View.
2. Click **API Specific**.
3. Select **Enable geometry instancing** to place a check mark in the check box.

Set Support DXT texture formats for Direct 3D®

This option enables support for DirectX® compressed texture formats. DXT requires half the amount of memory to draw the same amount of textures. This frees up memory while achieving high quality graphics.

1. Expand **3D** in Advanced View.
2. Click **API Specific**.
3. Select **Support DXT texture formats** to place a check mark in the check box**.**

Set Alternate pixel center for Direct 3D®

This might eliminate problems with certain Direct 3D® games that display vertical and horizontal lines around textures or display text incorrectly. This setting should only be enabled if you are experiencing these issues, as it may cause problems in other games.

1. Expand **3D** in Advanced View.
2. Click **API Specific**.
3. Select **Alternate pixel center** to place a check mark in the check box.

Set Triple buffering for OpenGL®

Enabling Triple buffering will improve the frame rate of games when vertical sync is enabled, only if the frame rate is less than the vertical sync refresh rate. In low memory situations, enabling Triple buffering may decrease application performance as there will be less frame buffer memory available for texture and geometry data. If there is insufficient memory available to support Triple buffering, it will automatically be disabled.

1. Expand **3D** in Advanced View.
2. Click **API Specific**.
3. Select **Triple buffering** to place a check mark in the check box.

Set Force 24-bit Z-buffer depth for OpenGL®

Enables you to explicitly set the Z-buffer depth. Most applications will work best with the **Disabled** setting.

1. Expand **3D** in Advanced View.
2. Click **API Specific**.

3 Select **Force 24-bit Z-buffer depth** to place a check mark in the check box.

Apply your settings

1 Click **Apply** to save your changes and leave the Catalyst™ Control Center open.

2 Click **OK** to save your changes and exit the Catalyst™ Control Center.

Restore default settings

1 Move the mouse to the bottom right-hand corner of the window.

2 Click **Defaults**.

Note: Clicking **Defaults** will restore the defaults for the current view only. Previous settings are not altered and will be saved once you click **OK**.

Discard your settings

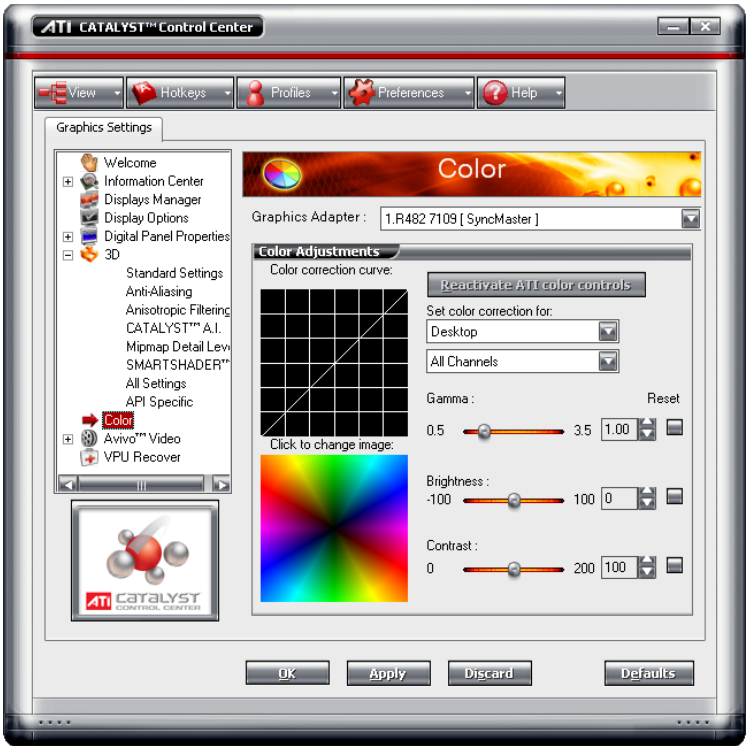
- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

Color

Use the Color page to adjust the color properties of your Desktop and Full-screen 3D applications and games. Use the Color Correction Images to preview the changes before applying them.

The Color curve is a graphical representation of all the values of gamma, brightness, or contrast. The color curve line will reflect any changes made to these elements.



Catalyst™ Control Center: Color

Color Desktop

Adjust the overall richness of color by using the **Gamma** control. To adjust the overall brightness use the **Brightness** control, and the overall contrast use the **Contrast** control.

Display Color page to configure Desktop

1. Click **Color** in Advanced View.
2. Select **Desktop** from the **Set color correction for** drop-down menu.

Set Gamma, Brightness, and Contrast simultaneously

1. Click **Color** in Advanced View.
2. Select Desktop in **Set color correction for**.
3. Select **All Channels**.

4 Click and drag either the Gamma, Brightness, or Contrast to adjust all these settings simultaneously.

Revert to last know All Channel settings

1 Click **Color** in Advanced View.

2 Select Desktop in **Set color correction for**.

3 Select **All Channels**.

Reactivate your color settings

Your desktop may retain the color settings when exiting an application or game. Should this be the case the gamma, brightness, and contrast sliders are disabled. The **Reactivate ATI color controls** button and resets the sliders to their previous settings for 2D.

1 Click **Color** in Advanced View.

2 Click **Reactivate ATI color controls** button.

Set Color Gamma

1 Click **Color** in Advanced View.

2 Click and drag the Control slider to your preferred setting:

- To increase the Gamma, move the slider to the right.
- To decrease the Gamma, move the slider to the left.
- Optionally, click the up and down arrow buttons of the adjustment box.

Note: Click the **Reset** button to cancel any adjustments made.

Note: The preview image automatically displays the adjustments you have made.

Set Color Brightness

1 Click **Color** in Advanced View.

2 Click and drag the **Control** slider to your preferred setting:

- To increase the Brightness, move the slider to the right.
- To decrease the Brightness, move the slider to the left.
- Optionally, click the up and down arrow buttons in the adjustment box.

Note: Optionally, click the **Reset** button to cancel any adjustments made.

Note: The preview image automatically displays the adjustment you have made.

Set Color Contrast

1. Click **Color** in Advanced View.
2. Click and drag the **Control** slider to your preferred setting:
   - To increase the Contrast, move the slider to the right.
   - To decrease the Contrast, move the slider to the left.
   - Optionally, click the up and down arrow buttons in the adjustment box.

Note: Optionally, click the **Reset** button to cancel any adjustments made.

Note: The preview image automatically displays the adjustment you have made.

Apply your settings

1. Click **Apply** to save your changes and leave the Catalyst™ Control Center open.
2. Click **OK** to save your changes and exit the Catalyst™ Control Center.

Restore default settings

1. Move the mouse to the bottom right-hand corner of the window.
2. Click **Defaults**.

Note: Clicking **Defaults** will restore the defaults for the current view only. Previous settings are not altered and will be saved once you click **OK**.

Discard your settings

- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

Color - FullScreen 3D

Adjusting the **Gamma** control alters the overall richness of color. Adjusting the **Brightness** control alters the overall brightness. Adjusting the **Contrast** control alters the overall contrast.

- Adjusting the Gamma can be useful for CAD applications that rely heavily on color coding or applications that require realistic color.
- Adjusting the Brightness and Contrast can be useful for 3D games that display dimly lit scenes.

Display Color page to configure FullScreen 3D

1. Click **Color** in Advanced View.
2. Select **FullScreen 3D** from the Set color correction for: drop-down menu.

Set Color Gamma

1. Click **Color** in Advanced View.
2. Click and drag the Control slider to your preferred setting:
   - To increase the Gamma, move the slider to the right.
   - To decrease the Gamma, move the slider to the left.
   - Optionally, click the up and down arrow buttons of the adjustment box.

   Note: Click the **Reset** button to cancel any adjustments made.

   Note: The preview image automatically displays the adjustments you have made.

Set Color Contrast

1. Click **Color** in Advanced View.
2. Click and drag the **Control** slider to your preferred setting:
   - To increase the Contrast, move the slider to the right.
   - To decrease the Contrast, move the slider to the left.
   - Optionally, click the up and down arrow buttons in the adjustment box.

Note: Optionally, click the **Reset** button to cancel any adjustments made.

Note: The preview image automatically displays the adjustment you have made.

Apply your settings

1. Click **Apply** to save your changes and leave the Catalyst™ Control Center open.
2. Click **OK** to save your changes and exit the Catalyst™ Control Center.

Restore default settings

1. Move the mouse to the bottom right-hand corner of the window.
2. Click **Defaults**.

Note: Clicking **Defaults** will restore the defaults for the current view only. Previous settings are not altered and will be saved once you click **OK**.

Discard your settings

- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

Avivo™ Video for Radeon® Series starting from 9500

Use the Avivo™ Video aspect to apply standard video settings with a Wizard or selecting a video preset. Use Adjustments to configure gamma, brightness, and hue. Use Theater Mode to set aspect ratio and overlay display mode. Preview your changes before applying them.

Catalyst™ Control Center: Avivo Video

Standard Settings

To quickly adjust your video settings choose one of the video presets or use the Video Wizard to configure your display devices.

Start the Video Wizard

1. Click to expand **Avivo™ Video** in Advanced View and click **Standard Settings**.
2. Click the **Wizard** button.

Select a Video Preset

1. Expand **Avivo™ Video** in Advanced View.
2. Click **Standard Settings.**
3. Select a preset from the **Video Presets** menu.

Apply your settings

1. Click **Apply** to save your changes and leave the Catalyst™ Control Center open.
2. Click **OK** to save your changes and exit the Catalyst™ Control Center.

Restore default settings

1. Move the mouse to the bottom right-hand corner of the window.
2. Click **Defaults**.

   Note: Clicking **Defaults** will restore the defaults for the current view only. Previous settings are not altered and will be saved once you click **OK**.

Discard your settings

- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

Adjustments

Use Avivo™ Video Adjustments to manually set Gamma, Brightness, Contrast, Saturation, and Hue.

Let the application control the video adjustments

1. Expand **Avivo™ Video** in Advanced View.
2. Click **Adjustments.**
3. Click **Let the application control the video adjustments.**

Set Gamma

Gamma controls the overall intensity of a video image.

1. Expand **Avivo™ Video** in Advanced View**.**
2. Click **Adjustments.**
3. Click and drag the **Gamma** control slider to the desired position.

Set Contrast

Contrast is the difference between the brightest and darkest parts of an image.

1. Expand **Avivo™ Video** in Advanced View.
2. Click **Adjustments.**
3. Click and drag the **Contrast** control slider to the desired position.

Set Brightness

Brightness is the overall intensity, or luminosity of an image.

1. Expand **Avivo™ Video** in Advanced View**.**
2. Click **Adjustments.**
3. Click and drag the **Brightness** control slider to the desired position.

Set Saturation

Saturation is the measure of amount of color in an image.

1. Expand **Avivo™ Video** in Advanced View**.**
2. Click **Adjustments.**
3. Click and drag the **Saturation** control slider to the desired position.

Set Hue

Hue defines the tint of the red, green, and blue components of an image.

1. Expand **Avivo™ Video** in Advanced View.
2. Click **Adjustments.**
3. Click and drag the **Hue** control slider to the desired position.

Apply your settings

1. Click **Apply** to save your changes and leave the Catalyst™ Control Center open.
2. Click **OK** to save your changes and exit the Catalyst™ Control Center.

Restore default settings

1. Move the mouse to the bottom right-hand corner of the window.
2. Click **Defaults**.

Note: Clicking **Defaults** will restore the defaults for the current view only. Previous settings are not altered and will be saved once you click **OK**.

Discard your settings

- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

Video Overlay Theater Mode

Use Theater Mode to change the way you view streaming video.

Select an Overlay Display when in Clone Mode

1. Expand **Avivo™ Video** in Advanced View**.**
2. Click **Theater Mode**.
3. Under **Overlay Display Mode/Clone mode shows overlay:** select **in Theater Mode (full-screen)** if you want the video content to be displayed on both displays. The Secondary display displays the same content as the primary.
    - Optionally, select **in Standard Mode** if you want the video content to be displayed on the primary display only.
    - Optionally, **the same on all displays** if you want the contents displayed the same on all display devices.

Select an Overlay Display when in Extended Mode

1. Expand **Avivo™ Video** in Advanced View.
2. Click **Theater Mode**.
3. Under Extended desktop shows overlay, select **in Standard Mode** if you want the video content to be displayed on the primary display only.
    - Optionally, select **in Theater Mode (full-screen)** if you want the video content to be displayed on both displays. The Secondary display displays the same content as the primary.

Set video aspect ratio

1. Expand **Avivo™ Video** in Advanced View**.**
2. Click **Theater Mode.**
3. Select **Match the source video** to maintain the aspect ratio of original video.
    - Optionally, select **Scale to full-screen** to have the source video fill the display area.

Apply your settings

1. Click **Apply** to save your changes and leave the Catalyst™ Control Center open.
2. Click **OK** to save your changes and exit the Catalyst™ Control Center.

Restore default settings

1. Move the mouse to the bottom right-hand corner of the window.
2. Click **Defaults**.

Note: Clicking **Defaults** will restore the defaults for the current view only. Previous settings are not altered and will be saved once you click **OK**.

Discard your settings

- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

Deinterlacing

Deinterlacing creates a sharp image from the two video fields of interlaced video. Select one of five options for deinterlacing video for better viewing.

- Auto Detect lets the multimedia driver to select the best deinterlacing scheme for different video sources and sizes.
- Bob deinterlacing, when selected, removes every other line of the video image and is recommended for motion video.

- Adaptive deinterlacing, when selected, reacts to the amount of motion in the video and apply a media filter on a motion block and apply weave on the remaining blocks.
- Motion Adaptive deinterlacing, when selected, applies the advanced motion detection to deinterlace the video.
- Weave does not apply any deinterlacing.

Select a deinterlacing mode

1. Expand **Avivo™ Video** in Advanced View.
2. Click **Deinterlacing**.
3. Select a deinterlacing mode for the drop-down menu.

Apply your settings

1. Click **Apply** to save your changes and leave the Catalyst™ Control Center open.
2. Click **OK** to save your changes and exit the Catalyst™ Control Center.

Restore default settings

1. Move the mouse to the bottom right-hand corner of the window.
2. Click **Defaults**.

   Note: Clicking **Defaults** will restore the defaults for the current view only. Previous settings are not altered and will be saved once you click **OK**.

Discard your settings

- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

All Settings

The All Settings page combines all of the principal Video features onto a single page, without any preview window, allowing quick access and adjustment.

This page is useful when it is not necessary to preview the adjusted settings because the effect is already known or understood.

Let the application control video adjustments

Enable this feature the to let the application determine the Video Adjustments settings.

1. Expand **Avivo™ Video** in Advanced View.
2. Click **All Settings**.
3. Scroll to **Video Adjustments**.
4. Click to place a checkmark next to **Let the application control the video adjustments** to enable it.

Adjust Gamma

Gamma controls the overall intensity of a video image.

1. Expand **Avivo™ Video** in Advanced View.
2. Click **All Settings.**
3. Scroll to **Video Adjustments.**
4. Adjust the **Gamma** control slider to the desired position.

Adjust Brightness

Brightness is the overall intensity, or luminosity of an image.

1. Expand **Avivo™ Video** in Advanced View.
2. Click **All Settings.**
3. Scroll to **Video Adjustments**.
4. Adjust the **Brightness** control slider to the desired position.

Adjust Contrast

Contrast is the difference between the brightest and darkest parts of an image.

1. Expand **Avivo™ Video** in Advanced View.
2. Click **All Settings.**
3. Scroll to **Video Adjustments**.
4. Adjust the **Contrast** control slider to the desired position.

Adjust Saturation

Saturation is the measure of amount of color in an image.

1. Expand **Avivo™ Video** in Advanced View.
2. Click **All Settings**
3. Scroll to **Video Adjustments.**
4. Adjust the **Saturation** control slider to the desired position.

Adjust Hue

Hue defines the tint of the red, green, and blue components of an image.

1. Expand **Avivo™ Video** in Advanced View.
2. Click **All Settings.**
3. Scroll to **Video Adjustments**.
4. Adjust the **Hue** control slider to the desired position.

Select an Overlay Display when in Clone Mode

1. Expand **Avivo™ Video** in Advanced View.
2. Click **All Settings**.
3. Scroll to **Overlay Display Mode**.
4. Under **Clone mode shows overlay:** select **in Theater Mode (full-screen)** if you want the video content to be displayed on both displays. The Secondary display displays the same content as the primary.
    - Optionally, select **in Standard Mode** if you want the video content to be displayed on the primary display only.
    - Optionally, **Same on all displays** if you want the contents displayed the same on all display devices.

Select an Overlay Display when in Extended Mode

1. Expand **Avivo™ Video** in Advanced View.
2. Click **All Settings**.
3. Scroll to **Overlay Display Mode**.
4. Under Extended desktop shows overlay: select **in Standard Mode** if you want the video content to be displayed on the primary display only.

- Optionally, select **in Theater Mode (full-screen)** if you want the video content to be displayed on both displays. The Secondary display displays the same content as the primary.

Set video aspect ratio

1. Expand **Avivo™ Video** in Advanced View**.**
2. Click **All Settings.**
3. Scroll to **Theater Mode Settings.**
4. Select **Match the source video** to maintain the aspect ratio of original video.
    - Optionally, select **Scale to full-screen** to have the source video fill the display area.

Select a deinterlacing mode

1. Expand **Avivo™ Video** in Advanced View.
2. Click **All Settings.**
3. Scroll to **Deinterlacing**.
4. Select a deinterlacing mode for the drop down menu.

Enable Windows Media Settings

1. Expand **Avivo™ Video** in Advanced View.
2. Click **All Settings**.
3. Scroll to **Windows Media Settings**.
4. Click **Windows Media Video Acceleration**.

Apply your settings

1. Click **Apply** to save your changes and leave the Catalyst™ Control Center open.
2. Click **OK** to save your changes and exit the Catalyst™ Control Center.

Restore default settings

1. Move the mouse to the bottom right-hand corner of the window.
2. Click **Defaults**.

Note: Clicking **Defaults** will restore the defaults for the current view only. Previous settings are not altered and will be saved once you click **OK**.

Discard your settings

- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

VPU Recover

VPU Recover enables the ATI display driver to detect when the graphics processor stops responding to display-driver instructions. When this happens, the display driver attempts to reset the graphics hardware. In most cases, VPU Recover will be able to reset the graphics processor without requiring a system restart.

Should the computer be unable to recover from a crash, VPU Recover will switch the computer to software rendering mode, allowing you to save any work in progress before restarting the computer.

Catalyst™ Control Center: VPU Recover

Enable VPU Recover

1. Click **VPU Recover** in Advanced View.
2. Click **Enable VPU Recover.**

Prepare an error report

You can chose to send an error report to ATI if VPU Recover is activated. This report assists ATI in determining the cause of the problem. This information is then used to develop more stable graphic drivers.

1. Click **VPU Recover** in Advanced View.
2. Click **Prepare an error report if VPU Recover is activated for submission to ATI Technologies.**
3. Click **Send Error Report** button in the error report email**.**

An email is created containing the error report for submission to ATI Technologies.

Note: No personal information is included in the error report.

Apply your settings

1. Click **Apply** to save your changes and leave the Catalyst™ Control Center open.
2. Click **OK** to save your changes and exit the Catalyst™ Control Center.

Restore default settings

1. Move the mouse to the bottom right-hand corner of the window.
2. Click **Defaults**.

Note: Clicking **Defaults** will restore the defaults for the current view only. Previous settings are not altered and will be saved once you click **OK**.

Discard your settings

- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

CrossFire™

Use CrossFire™ to combine the power and performance of two or more Visual Processing Units to drive a single display. Harness the power of a dual PCI Express® based computer to deliver up to twice the VPU performance when using 3D graphics applications.

The CrossFire™ aspect requires the following to be present:

- a motherboard with two PCI Express® X16 slots
- a CrossFire™ Edition Series graphics card
- The Radeon® X850 CrossFire™ Edition can be paired with any standard Radeon® X850-based graphics card, or

- The Radeon® X800 CrossFire™ Edition can be paired with any standard Radeon® X800-based graphics card.
- An interconnect cable, supplied with the CrossFire™ Series graphics card, connecting the two cards to a single monitor.

When CrossFire™ is enabled, any *one* of the four following display modes are available:

- SuperTiling - A graphical load-balancing scheme where CrossFire™ renders alternate small 32x32 pixel squares in a fine-grained checkerboard pattern. This configuration increases image rendering quality, as each card processes half of the complex 3D objects in the pixel squares.
- Scissor Mode - A graphical load-balancing scheme where two graphical cards are used to render two halves of an image display. One graphics card renders the top half of the screen while the second graphics card renders the bottom half.
- Alternate Frame Rendering - A graphical load-balancing scheme where two graphics cards are used to render alternate frames of the display. This configuration increases the detail of the 3D objects each card can render, as each card handles half of the total number of frames.
- Super Anti-aliasing - A feature that improves image quality by combining the results of full-screen anti-aliasing across two graphics cards in a CrossFire™ configuration. The two graphics cards work on different anti-aliasing patterns within each frame.

It is recommended that Catalyst™ A.I. is enabled because it selects the preferred rendering mode for target applications. For applications that are not identified in Catalyst™ A.I., or when Catalyst™ A.I. is disabled, default CrossFire™ rendering modes are used.

By default, either SuperTiling or Scissor modes are applied, depending on the application. Alternate frame rendering mode is used for applications identified in Catalyst™ A.I. when enabled. Super Anti-aliasing is enabled through the Catalyst™ Control Center.

For the latest information see the CrossFire™ Web page at:

ati.com/crossfire

Catalyst™ Control Center: CrossFire™

Enable CrossFire™

1 Click **CrossFire™** in Advanced View.

2 Click **Enable CrossFire™.**

When CrossFire™ is successfully enabled all display devices, except the one used by CrossFire™, will be disabled.

> **Note:** CrossFire™ Higher Quality anti-aliasing can be adjusted in the Catalyst™ Control Center 3D settings aspect.

Set the level of adaptive anti-aliasing

1 Expand **3D** in Advanced View.

2 Click **Adaptive Anti-Aliasing**.

3 Adjust the **Adaptive Anti-Aliasing** control slider to the desired setting.

Set Catalyst™ A.I. settings

1 Expand **3D** in Advanced View.

2 Click **Catalyst™** A.I.

3 If necessary, clear the check mark from Disable **Catalyst™** A.I.

4 Click and drag to slider to the desired setting.

Apply your settings

1 Click **Apply** to save your changes and leave the Catalyst™ Control Center open.

2 Click **OK** to save your changes and exit the Catalyst™ Control Center.

Discard your settings

- Click **Discard** to ignore any unsaved changes and restore the settings that existed when the Catalyst™ Control Center was opened or the last time **Apply** was used. Discard does not close the Catalyst™ Control Center.

Clicking **Discard** applies to all features of an aspect, not just the feature in the current view.

Change motherboard BIOS settings

Some motherboards may have a system BIOS option to switch between single or dual PCIe™ slot support. The default setting may be single slot support.

Refer to the motherboard's manual for information to enable dual PCIe™ slot support.

For more information see the CrossFire™ Web page at:

ati.com/crossfire

CrossFire™ graphics card connections

In order for CrossFire™ to function the interconnect cable must be correctly connected to both the Master and Slave graphics cards.

1. Connect the DMS-59™ connector of the interconnect cable to the DMS-59™ connection on the Master card.
2. Connect the DVI-I connector of the interconnect cable to the DVI-I connection on the Slave card.
3. Connect the remaining DVI-I connector of the interconnect cable to your monitor.

   Note: On graphics cards with two DVI-I connectors, only one DVI-I connector on the Slave card supports Transition Minimized Differential Signaling (TMDS) required by CrossFire™. If CrossFire™ does not appear in the Catalyst™ Control Center or is not available, try connecting to the second DVI-I connector on the Slave card.

For more information see the CrossFire™ Web page at:

ati.com/crossfire

Graphics cards with different amounts of memory

Graphics card with different amounts of memory can by used with CrossFire™. However, restarting your computer is required. This will cause CrossFire™ to reduce the amount of memory on the card with the most amount of memory to match the memory size of the graphics card with the least amount of memory.

Clicking **OK** to the memory mismatch error message will restart your computer.

Note: When disabling CrossFire™ you will be given the option to restart your computer to restore the original graphics memory size or continue with the reduced memory size.

For more information see the CrossFire™ Web page at:

ati.com/crossfire

Card Reversal Recommend

A recommendation message to reverse the graphics card positions may appear if the master graphics card is not installed into the primary PCIe™ slot. Although CrossFire™ can be enabled, performance may be improved by reversing the graphics card in the computer.

See you motherboard’s manual to determine which is the primary PCIe™ slot.

For more information see the CrossFire™ Web page at:

ati.com/crossfire

3D client is active

You will not be able to start CrossFire™ if a 3D application, game, or video playback, such as a DVD movie, is running.

Close all open 3D applications, games, and movie player applications then enable CrossFire™.

For more information see the CrossFire™ Web page at:

ati.com/crossfire

CrossFire™ Is Currently Unavailable

This error is occurred because CrossFire™ did not correctly detect your graphics hardware or their is a problem with the software.

- Check the graphics card are installed correctly.
- Check the interconnect cable is installed correctly.
- Close all running 3D applications.
- Re-install the CATALYST™ Control Center. For information on installing the software see the Getting Started Guide that came with your graphics card.

For more information see the CrossFire™ Web page at:

ati.com/crossfire

Disabling CrossFire™

When CrossFire™ is disabled you will need to restore your graphics settings. It is recommended that you create a Profile that contains all your settings.

For more information see the CrossFire™ Web page at:

ati.com/crossfire

Create a profile

A profile can be created from any aspect of Catalyst™ Control Center.

1. Make customized changes by adjusting the various sliders and buttons for the aspects to be included in your profile.
2. Open the **Profiles Manager**.

3. Enter a name for your Profile in **Create or Edit Profile**.
4. Enter a description of the profile.
5. Select the composition, activation, and applications options that you wish to apply to the profile.
6. Click **Save.**