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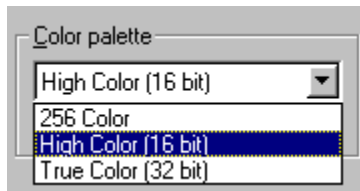
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Setting Your Desktop's Color Depth

To set the color depth of your desktop:

1.  Bring up the Control Panel's Display Properties window.
2. Click on the **Settings** tab.
2. Under "Color palette," select the desired color depth:




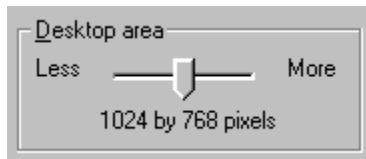
-or-

1. Click on the **Display Control** icon  in the taskbar.
2. Click on the color depth (and resolution) you want.

Setting Your Desktop Resolution


To set the resolution of your desktop:

1.  Bring up the Control Panel's Display Properties window.
2. Click on the **Settings** tab.
3. Under "Desktop area," drag the slider to the desired resolution:




4. Click **OK** or **A**pply.

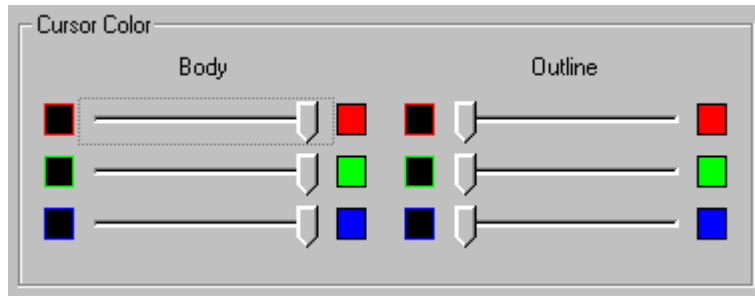
-or-

1. Click on the **Display Control** icon  in the taskbar.
2. Click on the resolution (and color depth) you want.

Setting Your Cursor Color

To set the color of your cursor:


1.  Bring up the Control Panel's Display Properties window.
2. In Windows 95 click on the **SPECTRA Cursor/Monitor** tab.
In Windows 98 click on the **Advanced...** button and then click on the **SPECTRA Options** tab.
3. Move the sliders on the left hand side of the Cursor Color box to adjust the cursor's body color.
4. Move the sliders on the right hand side of the Cursor Color box to adjust the cursor's outline color.




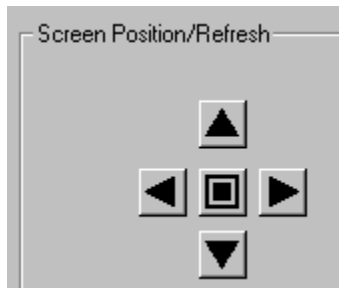
5. Click **OK** or **Apply**.

Setting the Screen Position of Your Monitor

To set the screen position of your monitor:

1.  Bring up the Control Panel's Display Properties window.
2. In Windows 95 click on the **SPECTRA Cursor/Monitor** tab.
In Windows 98 click on the **Advanced...** button and then click on the **SPECTRA Options** tab.
3. Click the left, right, up or down arrow buttons in the Screen Position/Refresh box to shift your screen. Each click of a button shifts the screen in the indicated direction. You can click on the center

button  to reset the screen to its original position.




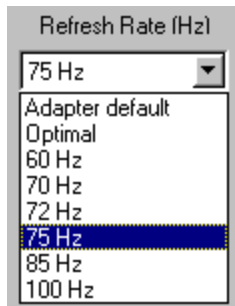
5. Click **OK** or **Apply**.

Note: You cannot use SPECTRA's display utilities to adjust your monitor's screen position while TV-out is enabled.

Setting the Refresh Rate for Your Monitor


To set the vertical refresh rate for your monitor:

1.  Bring up the Control Panel's Display Properties window.
2. In Windows 95 click on the **SPECTRA Cursor/Monitor** tab.
In Windows 98 click on the **Advanced...** button and then click on the **Adapter** tab.
3. Display the Refresh Rate (Hz) options in the Screen Position/Refresh box.



4. Select the refresh rate you prefer.
5. The desktop will switch to the selected refresh rate. You will be asked if you want to keep the setting. If you do, click **OK**. Otherwise, your original refresh rate will be restored after 10 seconds.

-or-


1. Click on the **Display Control** icon  in the taskbar.
2. Go to Refresh Frequency and click on a new refresh rate.
3. Your screen will go black, and your desktop will change to the selected refresh rate.

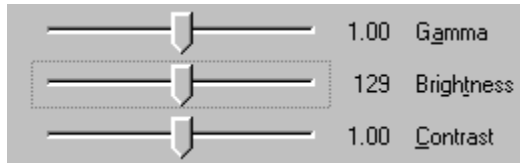
Note: If it is your first time switching to the selected refresh rate, you will be asked if you want to keep the setting. If you do, then click **OK**. Otherwise, your display will return to its original refresh rate.

You can also use the SPECTRA Refresh Utility to adjust your refresh rates. Run it from the **Display Control** icon on your taskbar.

Setting the Brightness of Your Display

To set the brightness of your display:

1.  Bring up the Control Panel's Display Properties window.
2. In Windows 95 click on the **SPECTRA Gamma Control** tab.
In Windows 98 click on the **Advanced...** button and then click on the **SPECTRA Gamma Control** tab.
3. Move the middle slider, marked **Brightness**, to the left or right to achieve the desired level.



5. You can also type **Alt-t** and use the left and right arrow keys to move the slider precisely.
6. To save this new setting for later use, select **Save** and type a file name for the new setting.
7. To use a previously saved setting, select **Load** and the file name for that setting.
8. To reset to the standard setting, select **Default**.
9. Click **OK** or **Apply**.

You can also change the brightness of the red, green, or blue hues in your display separately:

1. In the "Color" box on the right hand side of the **SPECTRA Gamma Control** tab, select the red, green, or blue button, or type **Alt-r**, **Alt-g**, or **Alt-b**.




2. Follow steps 3-9 above.

Setting brightness for your TV:

There is a separate brightness control in the **SPECTRA TV** tab of the Display Properties control panel. It allows you to set the brightness for your TV independently from your monitor.

Setting the Gamma of Your Display

To set the gamma (or "whiteness") of your display:

1.  Bring up the Control Panel's Display Properties window.
2. In Windows 95 click on the **SPECTRA Gamma Control** tab.
In Windows 98 click on the **Advanced...** button and then click on the **SPECTRA Gamma Control** tab.
3. Move the top slider, marked **Gamma**, to the left or right to achieve the desired level.



5. You can also type **Alt-a** and use the left and right arrow keys to move the slider precisely.
6. To save this new setting for later use, select **S**ave and type a file name for the new setting.
7. To use a previously saved setting, select **L**oad and the file name for that setting.
8. To reset to the standard setting, select **D**efault.
9. Click **OK** or **A**pply.

You can also set the gamma of the red, green, or blue hues in your display separately:


1. In the "Color" box on the right hand side of the **SPECTRA Gamma Control** tab, select the red, green, or blue button, or type **Alt-r**, **Alt-g**, or **Alt-b**.



2. Follow steps 3-9 above.

Setting the Contrast of Your Display

To set the contrast of your display:

1.  Bring up the Control Panel's Display Properties window.
2. In Windows 95 click on the **SPECTRA Gamma Control** tab.
In Windows 98 click on the **Advanced...** button and then click on the **SPECTRA Gamma Control** tab.
3. Move the bottom slider, marked **C**ontrast, to the left or right to achieve the desired level.



5. You can also type **Alt-c** and use the left and right arrow keys to move the slider precisely.
6. To save this new setting for later use, select **S**ave and type a file name for the new setting.
7. To use a previously saved setting, select **L**oad and the file name for that setting.
8. To reset to the standard setting, select **D**efault.
9. Click **OK** or **A**pply.

You can also change the contrast of the red, green, or blue hues in your display separately:


1. In the "Color" box on the right hand side of the **SPECTRA Gamma Control** tab, select the red, green, or blue button, or type **Alt-r**, **Alt-g**, or **Alt-b**.

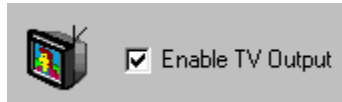


2. Follow steps 3-9 above.

Displaying on your TV

Turning on TV output:


1. Connect the Video-out of the SPECTRA card to the Video-In of the TV.
2.  Bring up the Display Properties control panel.
3. In Windows 95 click on the **SPECTRA TV** tab.
In Windows 98 click on the **Advanced...** button and then click on the **SPECTRA TV** tab.
4. Check the "Enable TV Output" box.

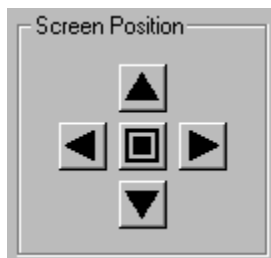


5. You will then be asked if you want to change your desktop to a TV compatible mode. Click **OK**. Your desktop resolution will be reset to 640x480x60 Hz (50 Hz if you select PAL mode). 800x600 and 960x720 are also supported.
6. Click OK or Apply.

Adjusting the screen position on your TV:

Note: You cannot adjust the screen position of your monitor while TV-out is enabled.

1. Click the left, right, up or down arrow buttons in the Screen Position box to shift your screen. Each click of a button shifts the screen in the indicated direction. You can click on the center button  to reset the screen to its original position.



2. Click **OK** or **Apply**.

Options for TV display:



SPECTRA offers several options for customizing your TV display.

Flicker Free Mode helps to make screen easier to view by reducing flicker when displaying the Windows desktop on your TV.

Underscan Mode fits the desktop into the TV's viewable display area.

Experiment to find the ones that work the best with your television and applications. Flicker free and Underscan modes are not recommended for playing back video on the TV.

Note: Flicker Free Mode is always enabled in Underscan Mode.

Capturing Video with Media Scope

To capture video with Media Scope:


Note: The VideoPort 600 is required for this feature.

1. Connect your composite or S-Video source to "V IN" on the back of your Total3D card.
2. Click the **MEDIA** button at the top of the remote, and select **Live Video**



3. This will modify the remote, bringing up the capture buttons:



4. Click **SOURCE** to select between composite and S-Video input.
 - 5. Click **VIDEO** to set capture settings (frame size, capture mode).
6. Click **AUDIO** to set audio capture setting (Media Scope uses the audio-in from your sound card to capture audio).
7. Click the Record button  near the top of the remote. A dialog box will appear to set the capture parameters, including frame rate, capture time, file name, etc.
8. Click **OK** to begin capture.

Understanding the Media Scope Controls



Power: Exit Media Scope.

Media: Select what media to play. You can choose from **File**, **Video CD**, **Audio CD**, or **Live Video**.

Drive: Select the CD-ROM drive to use for Video CD playback.

Eject: When playing a CD, ejects the CD on drives that support it. When playing a file, closes the display window and brings up an Open File dialog box.

Icon: Minimize Media Scope to an icon.



Play: Open the playback window and begin playback. You can control playback by using the slide bar and controls at the bottom of the display window, or by using the controls on the remote.

Pause: Pause playback; click again to resume.

Stop: Stop playback.



Previous Track: When playing back a video or audio CD, go to the previous track. When playing back a file, go to beginning of the file and pause.

Next Track: When playing back a video or an audio CD, go to the next track. When playing back a file, go to end of the file and pause.

Video CD control: For controlling playback of Video CD 2.0 titles.

Record: Capture live video to disk.



Rewind: Rewind while the button is held down.

Fast Forward: Fast forward while the button is held down.

Frame Back: Go back one frame while playback is paused. (Works when playing back AVI files.)

Frame Forward: Advance one frame while playback is paused. (Works when playing back AVI files.)



- Volume:** Adjust playback volume: + increases volume, - decreases volume.
- Speed:** Adjust playback speed: + increases speed, - decreases speed. (Works only with AVI files.)
- Repeat:** Play back file or track in a loop.
- Mute:** Stop sound output. Click again to resume.
- H.Res:** Select high resolution still frame mode for video CDs.



- Size:** Choose display size (**1x**, **2x**, **3x**, **Maximize**, **Full Screen**). Unavailable sizes are displayed in gray. Note: When playing in **Full Screen**, double-click on the video to return to the display window.
- Save:** Capture the currently displayed frame and save it as an image file. Use the **OPTION** button to select how the image will be saved.
- Option:** Set preferences for Media Scope.





- Keypad:** Specify track number (or file order) for playback.
- Shuffle:** Play back tracks (or files) in random order.
- Program:** Play back tracks (or files) in the order specified with the **Edit** button.
- Edit:** Select tracks (or files) to play back as a **Program**.



Change the size of the Media Scope control.



Playing MPEG and AVI Files

To play MPEG or AVI files

1. Click on the **Media**  selector at the top of the remote and set it to **File**.
2. Click on the **Play** button  to bring up an Open File dialog box.
3. Locate the file, and click **Open** to bring up a display window and begin playing.

Playing Video and Audio CDs

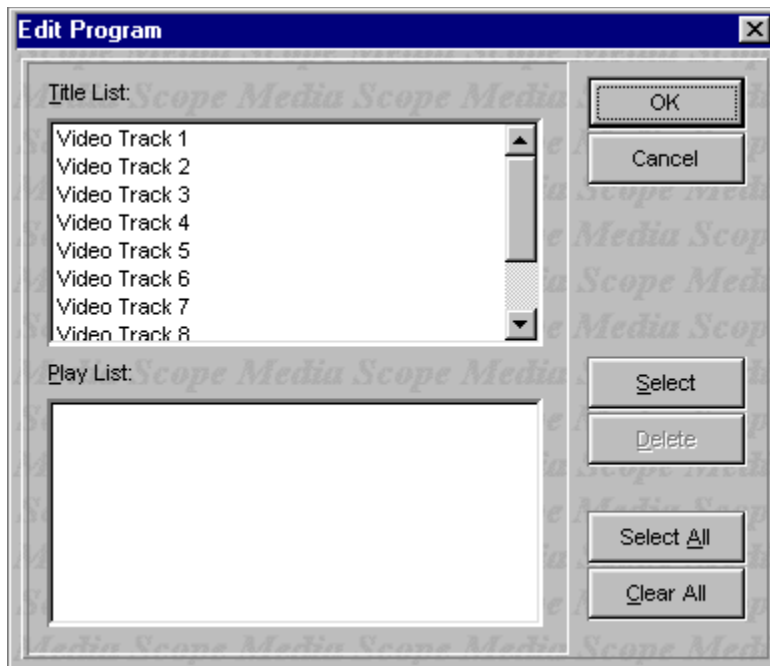
To play Video or Audio CDs

1. Insert the CD into the CD-ROM drive. If you have multiple CD-ROM drives, use the **Drive** button to select a CD-ROM drive.
2. Click on the **Media**  selector at the top of the remote and set it to **V**ideo CD or **A**udio CD.
3. Click on **Play**  to load the CD, and begin playback from the first track.
4. You can now use the keypad to select a track to play, or use the **EDIT** command to create a pre-programmed play list.

Creating a Program List

To create a program list

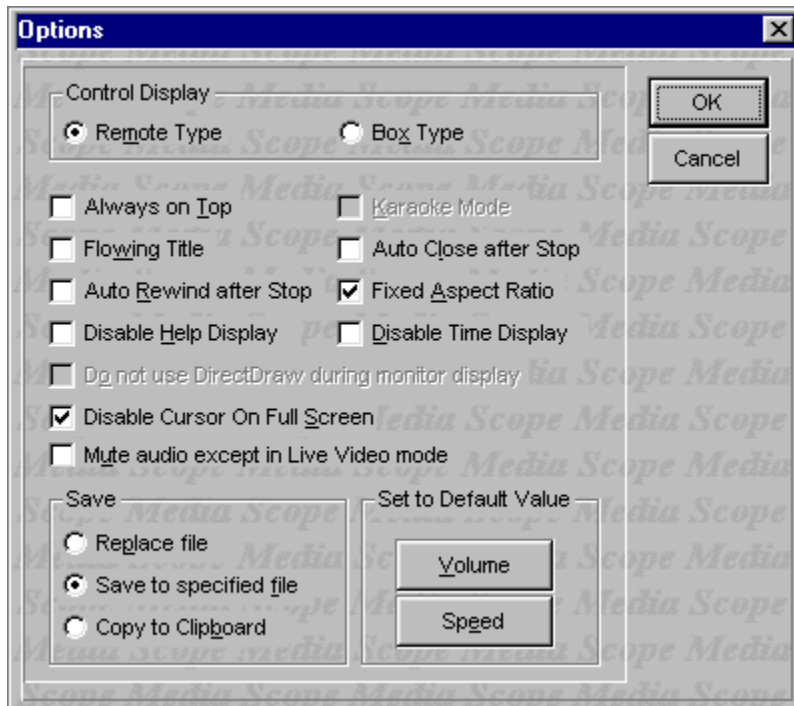
1. Begin playing a video or audio CD. Or, select a directory containing MPEG or AVI files by playing one of those files.
2. Click on the **EDIT** button and a dialog box like this will be displayed:



3. From the **Title List**, click on each track (or file) you want to play, and then click on the **Select** button. The selected tracks will be saved in the **Play List**.
4. When finished selecting titles, click **OK**.
5. Click on **PROGRAM** to play the tracks in the programmed order.

Setting Options for Media Scope

You can set the following preferences with the **Options** button:



Control Display

Selects the layout of Media Scope.

Always on Top

Always display Media Scope in the foreground, even when another application is the active window.

Auto Close after Stop

When playback ends, close the display window.

Auto Rewind after Stop

After playing back a file, automatically rewind to the beginning.

Fixed Aspect Ratio

Keep the horizontal and vertical size of playback to the same proportions as the source size.

Note: Depending on the size of the source image, some of the image may be cut off on the sides during full-screen playback. To display the entire image, leave this box unchecked.

Disable Help Display

Disable bubble help messages normally displayed as the cursor passes over each control button.

Disable Cursor on Full Screen

During full screen display mode, do not display the cursor.

Disable Time Display

Do not display the time elapsed during playback.

Save

Select how to save images captured from AVI files.

Replace file

Once a file name has been specified, save the captured image without bringing up the Save File dialog box.

Save to specified file

Always bring up a Save File dialog box to select the file name and file format for the captured image.

Copy to Clipboard

Copy the captured image to the clipboard.

How the Application Launcher Works



The Canopus Application Launcher provides one click access to often used applications and games. The Launcher is a tool bar style window which is dockable onto the sides of the desktop or it can be undocked as a floating window. It has a unique feature in that it works directly with Canopus graphics cards to provide custom Display settings for each button (i.e. application) on the tool bar.

Display settings can be broken down into Desktop settings and Product settings. Desktop settings are the resolution and bit depth properties of the display. Product settings are the other properties supported by a Canopus graphics card. These properties include gamma, TV control, refresh rates, etc.

Each button on the Application Launcher can be configured to do the following:

1. Just launch an application;
2. Set the Display settings and launch an application;
3. Just set the Display settings.

The Application Launcher is installed automatically by the setup and will load automatically each time Windows is started. The Launcher comes with 3 groups setup by default; the Canopus group, the Games group, and the Applications group. Just click the group button and its applications will become visible.

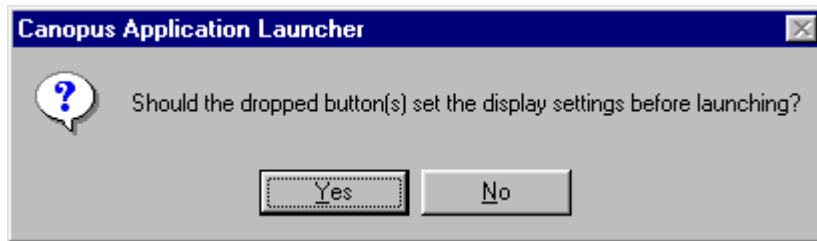
Note: The Canopus group contains a Desktop button which has the Desktop settings at the time the Application Launcher was installed. This button is used to restore the desktop to its normal or most commonly used state if other applications will change the Desktop settings.

Adding / Removing Applications



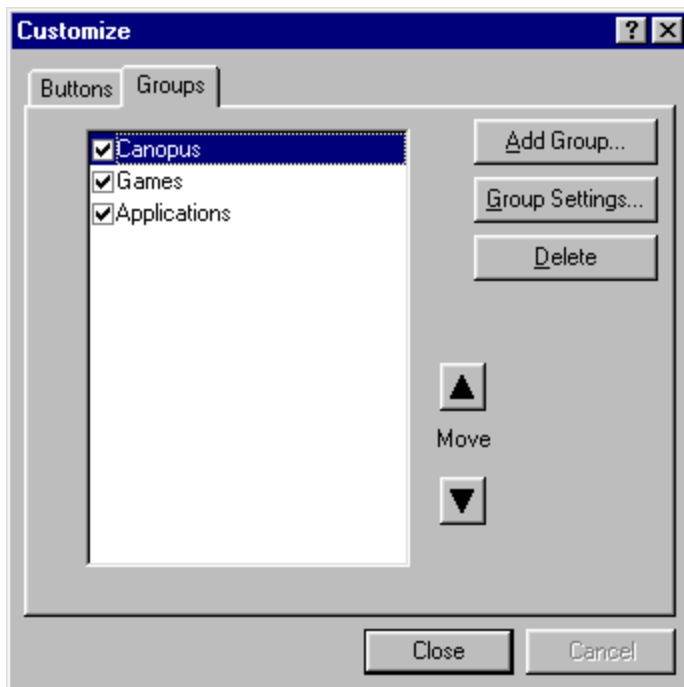
Adding an Application

Applications are added to the Application Launcher by dragging and dropping the application's icon onto the Launcher tool bar or by customizing the tool bar. When dropping an icon onto the Launcher a window will pop up asking if the display settings should be set or not when launching the application.



The Application Launcher can save all of Display settings at the time the icon is dropped. These include desktop resolution, bit depth (Desktop settings), and also the Product settings for the Total3D 128, Pure3D, or SPECTRA (e.g. gamma, refresh rate, TV control, etc.).

Another way to add an application to the Launcher is to right click on the tool bar and select **Customize** to bring up the Customize dialog window.



Select the correct group in the Group box to add the new application. Click **Add Button** to bring up the Add Button dialog window and select the application to add.

Adding Space between buttons

Space can be added between buttons if desired. Just click the button in the button list to insert a space above it and then click **Add Space**. Spaces can not be added on either end of the list and multiple spaces will display as one.

Removing an Application

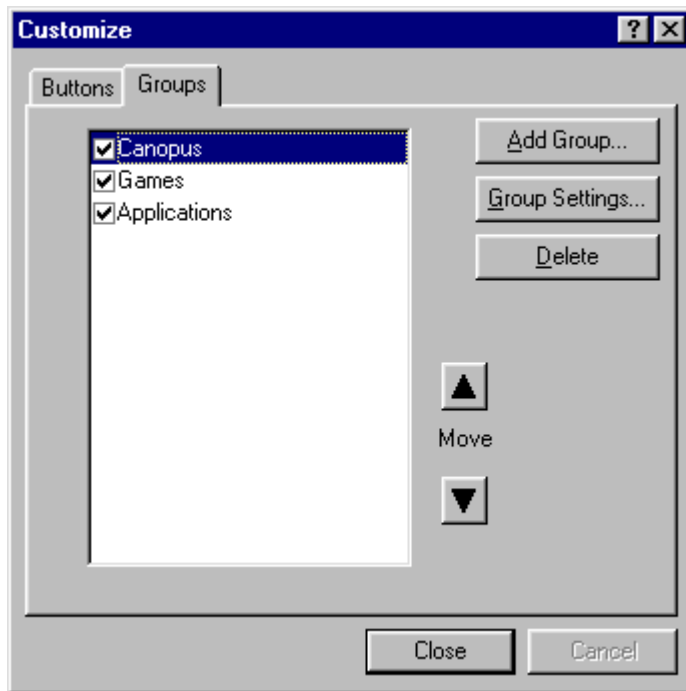
An application can be removed by first right clicking on the tool bar and selecting **Customize** to bring up the Customize dialog window. Select the group in which the application resides and then select the application from the button list window. Hit the **Delete** button to remove the button from the Application Launcher.

Adding / Removing Groups

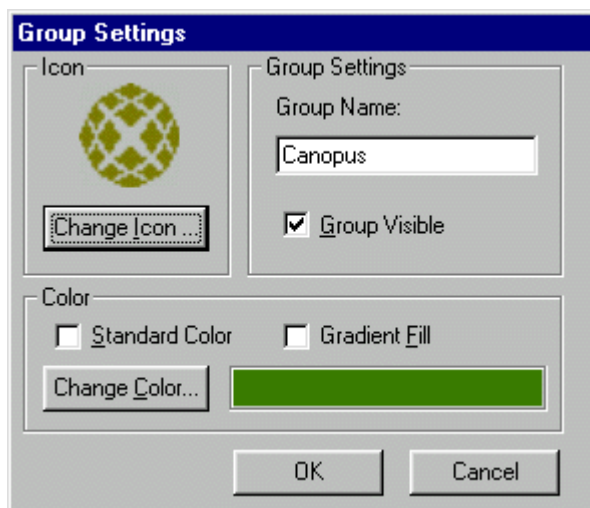


Adding a Group

Groups are added to the Application Launcher by right clicking on the tool bar and selecting **Customize** to bring up the Customize dialog window.



Click on the Groups tab to display the Groups sheet and then click the **Add Group** button to bring up the Group Settings dialog window.



For each group, the group name, icon, and color can be specified in the Group Settings window. The group color can be a solid or gradient fill or even a custom color can be used.

Removing a Group

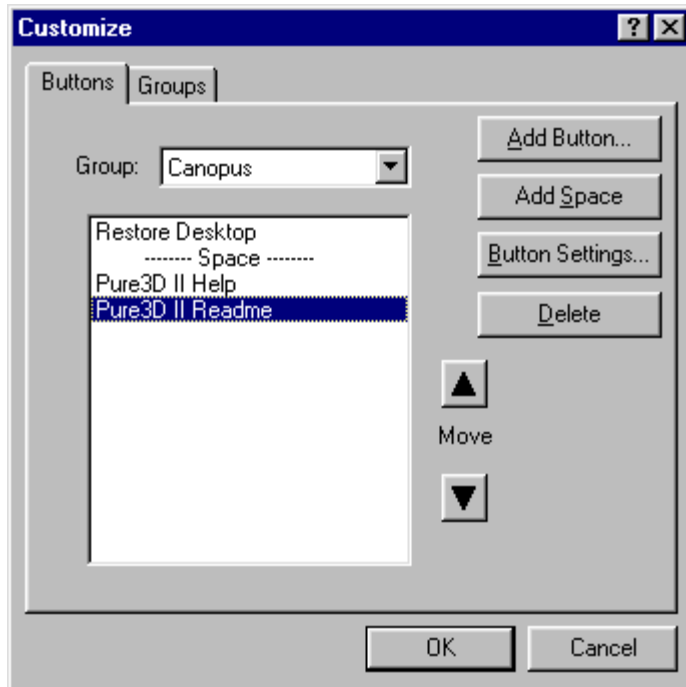
An group can be removed by first right clicking on the tool bar and selecting **Customize** to bring up the Customize dialog window. Click on the Groups tab and select the group to remove. Hit the **Delete** button to remove the group from the Application Launcher.

Note: A group can be made invisible by unchecking the group in the group list window.

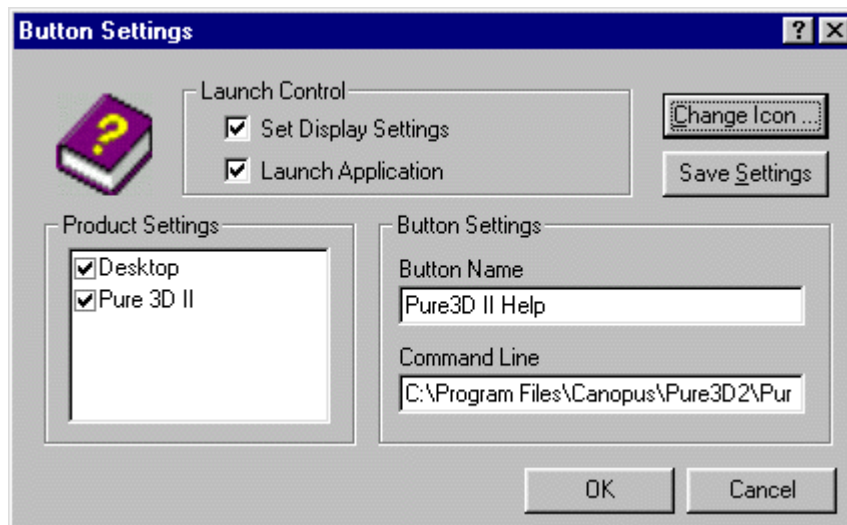
Customizing an Application's Launch Settings



To customize an application's Launch Settings first right click on the tool bar and select **Customize** to bring up the Customize dialog window.



Select the correct group from the Group box and then select the desired application in the list window. Click **Button Settings** to bring up the Button Settings window.



Launch Control

Checking the Set Display Settings option causes the Application Launcher to set the Desktop and Product settings (if they are checked in the Product Settings list box) before the application is launched. If Set

Display Settings is not checked then pressing the application's button on the Launcher will just launch the application if the Launch Application option is checked. If both options are unchecked the clicking the button will do nothing.

The default Restore Desktop button in the Canopus group has just the Set Display Settings option checked. By just using this option different buttons can be set up to instantly change between different resolutions and bit depths.

Product Settings

The Product Settings window lists the products which can be configured when an application is launched.

The Desktop product is always listed and consists of the resolution and bit depth. When checked and Set Display Settings is also checked, the resolution and bit depth will be set when the Launcher button is clicked.

Canopus graphics products will also be listed in the Product Settings window. Each product can be individually selected to have its settings set when the Launcher button is clicked.

Button Settings

The button name and command line string for starting the application are entered in the Button Settings section. The button name will appear when the mouse is over the button on the Application Launcher.

Save Settings

The Save Settings button is used to save all of the Desktop and Product Settings to be set when the application is launched. The Desktop and Product Settings can be selectively saved by checking or unchecking them in the Product Settings window.

The Save Settings function can also be accessed by right clicking on the Launcher button and selecting **Save Settings** from the menu.

Loading the Application Launcher



The Canopus Application Launcher starts automatically each time Windows starts. To have the Launcher not automatically load each time Windows starts then right click on the tool bar to pop up the Launcher program menu.



Select Auto Load to uncheck Auto Load and the Launcher will not load when Windows starts.

The Application Launcher can be started anytime by going to the Windows start menu and selecting Programs -> SPECTRA -> Application Launcher.

Setting up Games to work with the Application Launcher



To setup a game to just launch with the Application Launcher:

1. Select the Games group in the Application Launcher
2. Drag and drop the game icon onto the Launcher tool bar
3. Answer No when prompted to set the Display settings.



To setup a game to launch and set the gamma with the Application Launcher:

1. Adjust the gamma to the desired level using the [Gamma](#) control in the Display Properties window.
2. Select the Games group in the Application Launcher
3. Drag and drop the game icon onto the Launcher tool bar
4. Answer Yes when prompted to set the Display settings.

Using the WitchDoctor

The SPECTRA 2500's WitchDoctor functionality provides the following features:

Reverse Pass-through

The Reverse Pass-through feature provides the best image quality when displaying your desktop in a high resolution mode and using a secondary 3Dfx card for gaming. It accomplishes this by connecting both the monitor and the output of the 3Dfx card to the SPECTRA card. By connecting the cards in this manner the signal degradation of a high resolution mode on the primary display card will not occur. This functionality is accomplished in hardware and no software drivers need to be installed. Please refer to the Installation Guide on how to connect the cables.

TV-out from your 3Dfx card

The TV-out capability on the SPECTRA card can also be used to display 3Dfx games on the TV. This functionality is accomplished in hardware and software thus requiring the WitchDoctor drivers to be installed.

QuickControl and Application Launcher Utility support

[QuickControl](#) and [Application Launcher](#) can be used to customize the 3Dfx gaming environment when the WitchDoctor drivers and utilities are installed.

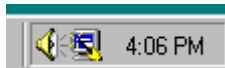
To install the WitchDoctor drivers:

1. Remove the Pure3D drivers (if they are present) before installing the WitchDoctor drivers.
2. Run the WitchDoctor Setup program located on the SPECTRA Drivers and Utilities CD.

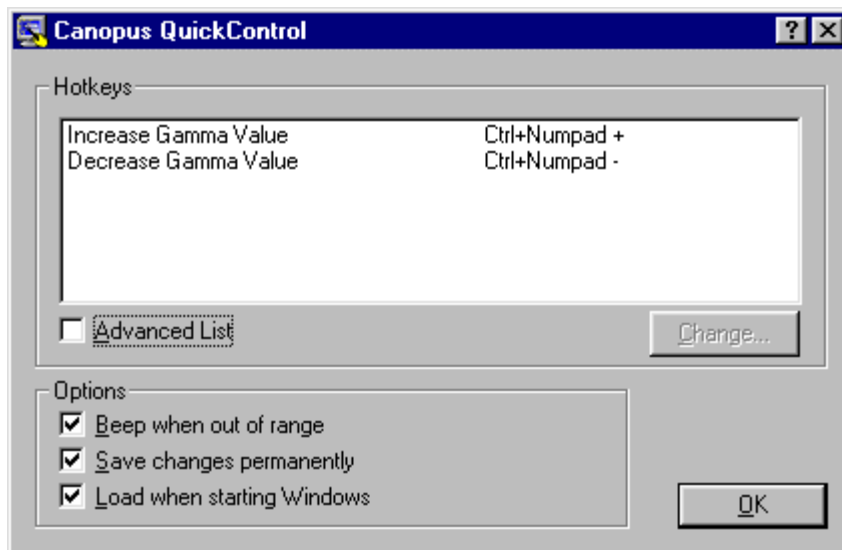
How QuickControl Works

The Canopus QuickControl utility provides hotkey access to various functions which are controlled by the display card. Hotkey access alleviates the problem of having to bring up the Display Properties tab to adjust the display settings to see the results real time when an application is running. For example, gamma settings can be adjusted during game play to customize them for each game or even to make the images appear brighter.

QuickControl installs automatically in the tray bar of the start menu.



Click on the QuickControl icon to activate its menu and select Configure... to bring up the QuickControl dialog window.



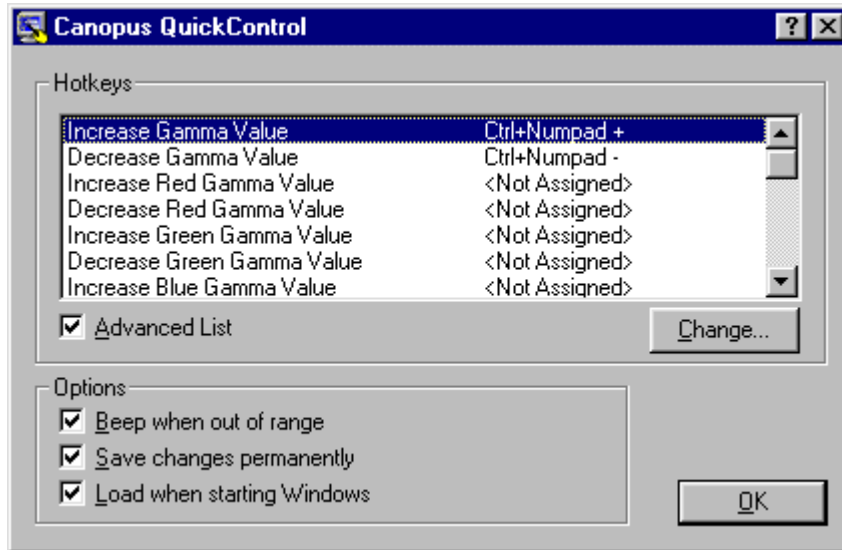
The Increase and Decrease Gamma Value functions are assigned by default with the key assignments listed in the window. Pressing the hotkey will cause the function to occur real time when QuickControl is active in the tray bar. For example, pressing Ctrl+Numpad + will increase the gamma of the screen.

By default the Advanced List is not enabled and its functions are not assigned. Click on the Advanced List to see all of the functions available.

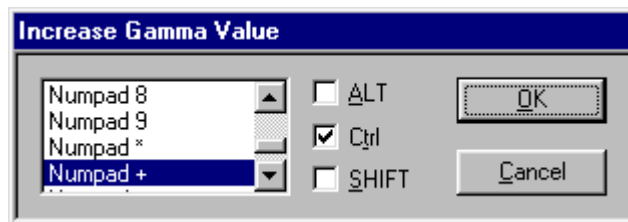
Help is provided within QuickControl by pressing the "?" in the upper right corner of the windows and selecting the item in question.

Assigning Hotkeys

Hotkeys are assigned in the QuickControl dialog window. By default only the Increase and Decrease Gamma Values are available in the Hotkey list. Click on the Advanced List checkbox to see all of the functions available.



Select the function to assign a hotkey and click on the Change... button to bring up the hotkey assignment window (or you can double click the function).



Select the desired key combinations and hit OK to accept.

Loading / Unloading QuickControl

The Canopus QuickControl installs automatically in the tray bar of the start menu.



To unload the QuickControl utility click on the QuickControl icon in the tray bar to activate its menu and select Exit.


To have QuickControl not automatically load each time Windows runs bring up the QuickControl dialog window and uncheck the option "Load when starting Windows".

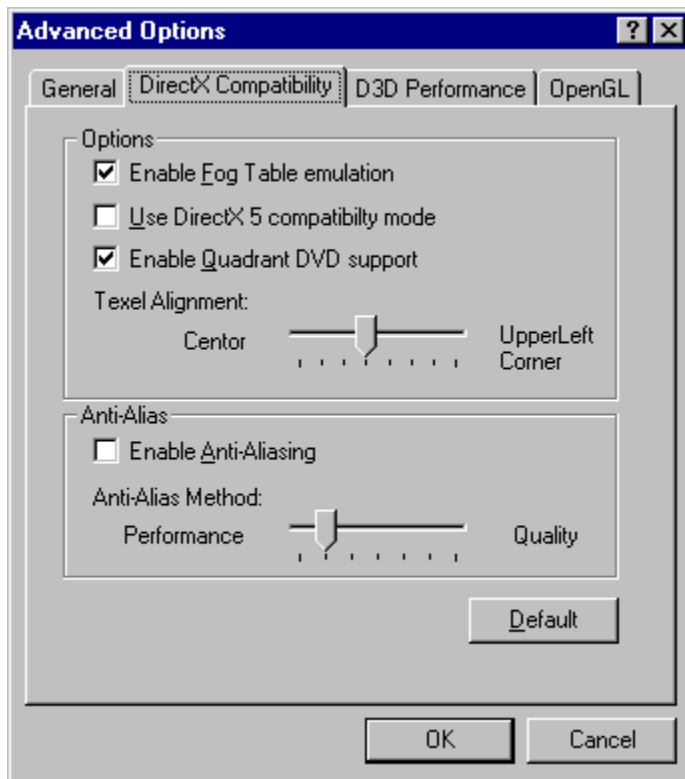


Anti-Aliasing Support in Direct3D

Anti-aliasing makes the edges of the polygons appear smoother and not jagged. Disabling Anti-aliasing would increase performance but sacrifice image quality. The Anti-Alias method can be optimized for performance or quality.

To change the Anti-Aliasing Support in Direct3D:

1.  Bring up the Control Panel's Display Properties window.
2. In Windows 95 click on the **SPECTRA Information** tab.
In Windows 98 click on the **Advanced...** button and then click on the **SPECTRA Options** tab.
3. Click the **Advanced...** button. This will bring up the Advanced Options dialog.



4. Click on the **D3D Compatibility** tab to bring it to the front of the window.
5. Click the checkbox to deselect (or select) to disable (or enable) Anti-Aliasing support in Direct3D.
6. Click **OK**.

Setting the Mipmap options in Direct3D

The RIVA TNT has several options for Mipmap generation. These options usually offer a trade off between quality and performance.


Mipmap Dithering can increase performance at the expense of image quality. The difference in image quality may not be very noticeable.

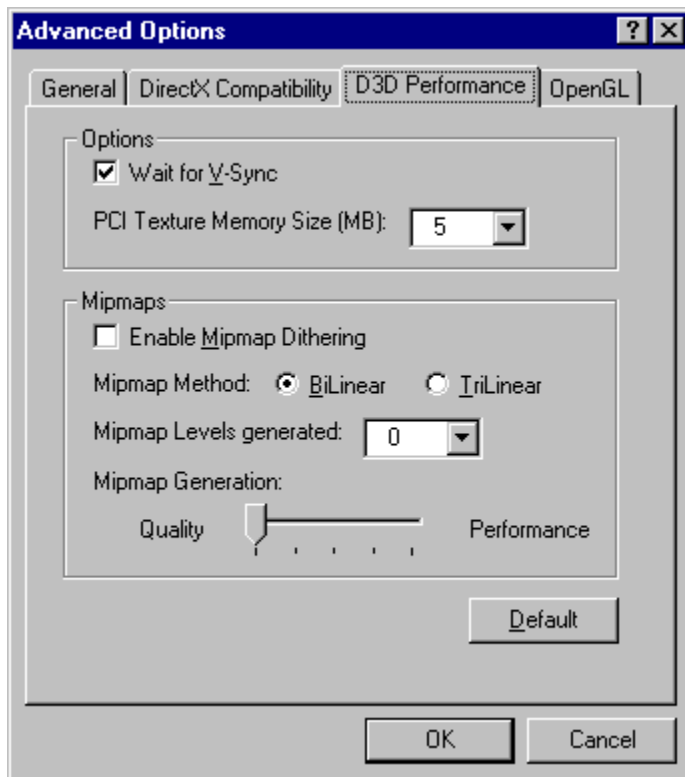
The Mipmap Method can use BiLinear filtering or TriLinear filtering when generating mipmaps. BiLinear may offer better performance whereas TriLinear will offer better quality.

The RIVA TNT can automatically generate Mipmap levels when new textures are uploaded. The Mipmap Levels option determines the maximum number of how many levels will be automatically generated for textures. Increasing the number of levels may increase performance but more texture memory will be used.

The Mipmap Detail Level provides an option to generate Mipmaps with best quality or best performance or 3 intermediate settings.

To change the Mipmap options in Direct3D:

1.  Bring up the Control Panel's Display Properties window.
2. In Windows 95 click on the **SPECTRA Information** tab.
In Windows 98 click on the **Advanced...** button and then click on the **SPECTRA Options** tab.
3. Click the **Advanced...** button. This will bring up the Advanced Options dialog.




4. Click on the **D3D Compatibility** tab to bring it to the front of the window.

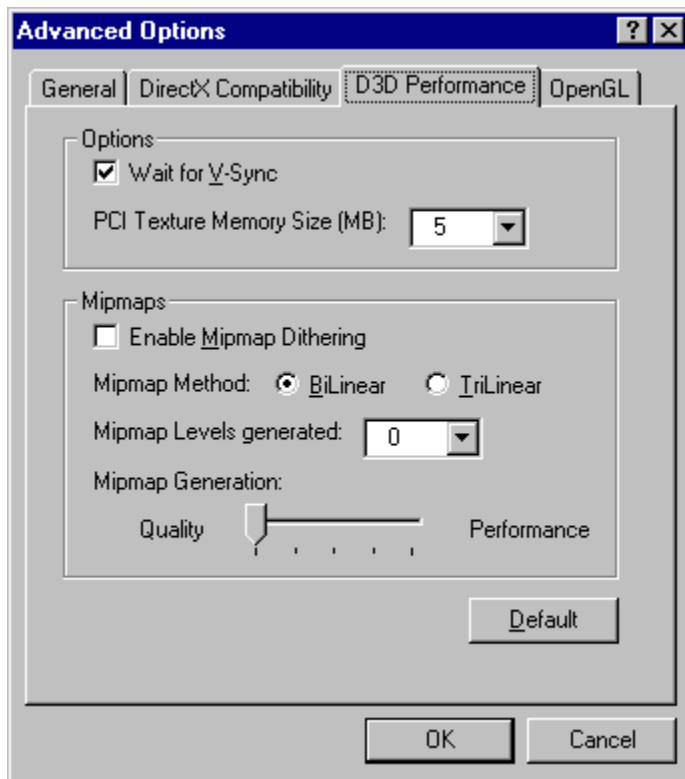
5. Select the desired options in the Mipmaps section.
6. Click **OK**.

Setting the Wait for V-Sync Option

By default the SPECTRA is set to wait for the vertical refresh blanking period before updating the screen. This can be turned off to increase the rendering speed in Direct3D and OpenGL applications but some rendering errors or tearing may be visible.

To set the Wait for V-Sync option:

1.  Bring up the Control Panel's Display Properties window.
2. In Windows 95 click on the **SPECTRA Information** tab.
In Windows 98 click on the **Advanced...** button and then click on the **SPECTRA Options** tab.
3. Click the **Advanced...** button. This will bring up the Advanced Options dialog.




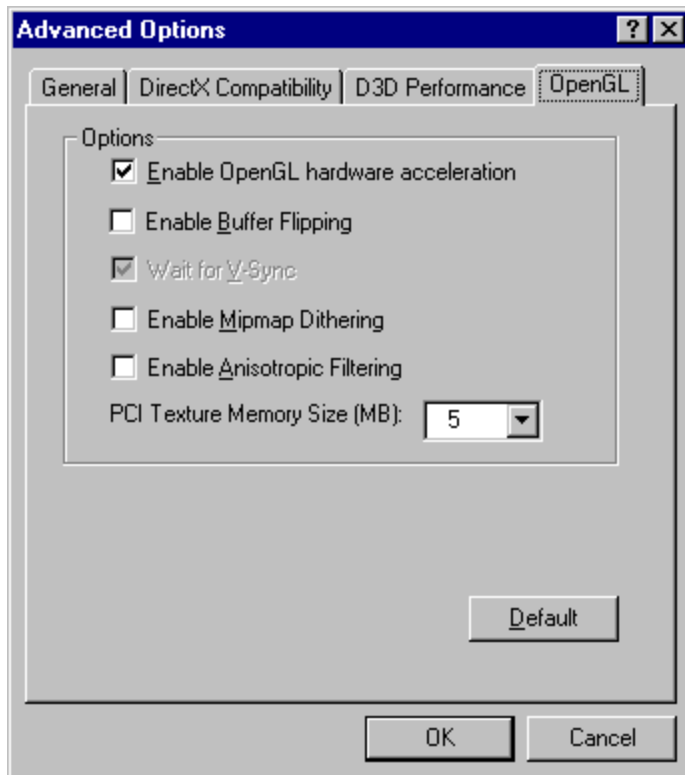
4. Click on the **D3D Performance** or **OpenGL** tab to bring it to the front of the window.
5. Click the checkbox to deselect (or select) the Wait for V-Sync option.
6. Click **OK**.

Enabling OpenGL Hardware Acceleration

By default the SPECTRA will use hardware acceleration for OpenGL applications. This can be turned off to disable the RIVATNT from accelerating the OpenGL rendering operations.

To set the Wait for V-Sync option:

1.  Bring up the Control Panel's Display Properties window.
2. In Windows 95 click on the **SPECTRA Information** tab.
In Windows 98 click on the **Advanced...** button and then click on the **SPECTRA Options** tab.
3. Click the **Advanced...** button. This will bring up the Advanced Options dialog.




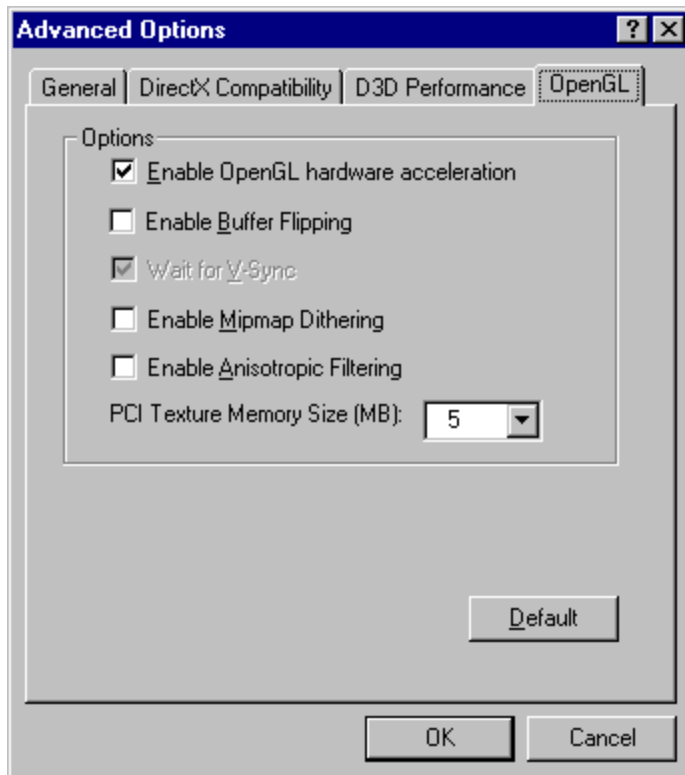
4. Click on the **OpenGL** tab to bring it to the front of the window.
5. Click the checkbox to deselect (or select) the Enable OpenGL Hardware Acceleration option.
6. Click **OK**.

Enabling Mipmap Dithering in OpenGL

Mipmap dithering can be enabled in OpenGL to improve the image quality between Mipmap levels. It is disabled by default to comply with OpenGL conformance settings.

To change the Mipmap Dithering in OpenGL:

1.  Bring up the Control Panel's Display Properties window.
2. In Windows 95 click on the **SPECTRA Information** tab.
In Windows 98 click on the **Advanced...** button and then click on the **SPECTRA Options** tab.
3. Click the **Advanced...** button. This will bring up the Advanced Options dialog.




4. Click on the **OpenGL** tab to bring it to the front of the window.
5. Click the checkbox to deselect (or select) the Enable Mipmap Dithering option.
6. Click **OK**.

Enabling Anisotropic Filtering in OpenGL

Anisotropic filtering provides better texture image quality as the texture surface becomes more oblique to the eye point. It is disabled by default to comply with OpenGL conformance settings.

To change the Anisotropic Filtering in OpenGL:

1.  Bring up the Control Panel's Display Properties window.
2. In Windows 95 click on the **SPECTRA Information** tab.
In Windows 98 click on the **Advanced...** button and then click on the **SPECTRA Options** tab.
3. Click the **Advanced...** button. This will bring up the Advanced Options dialog.



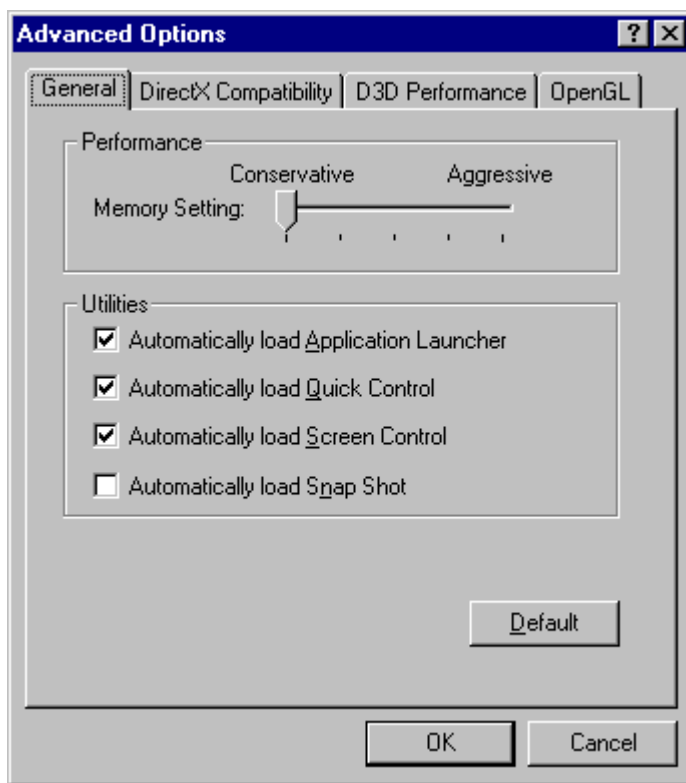
4. Click on the **OpenGL** tab to bring it to the front of the window.
5. Click the checkbox to deselect (or select) the Enable Anisotropic Filtering option.
6. Click **OK**.

Changing the Memory Performance

The memory performance can be adjusted to give better frame rates and benchmark results. The default Conservative setting is within the card's specifications. Adjusting the slider beyond Conservative will violate the specifications of the card and it may not function properly resulting in rendering errors, locking up, or possible damage to the card.

To change the Memory Performance in Direct3D:

1. Bring up the Control Panel's Display Properties window.
2. In Windows 95 click on the **SPECTRA Information** tab.
In Windows 98 click on the **Advanced...** button and then click on the **SPECTRA Options** tab.
3. Click the **Advanced...** button. This will bring up the Advanced Options dialog.



4. Click on the **General** tab to bring it to the front of the window.
5. In the Performance section use the Memory Setting slider control to change the setting in the range from Conservative to Agressive.

Note: Setting the Memory slider beyond Conservative will violate the card's specifications. The card may not function properly resulting in rendering errors or locking up.

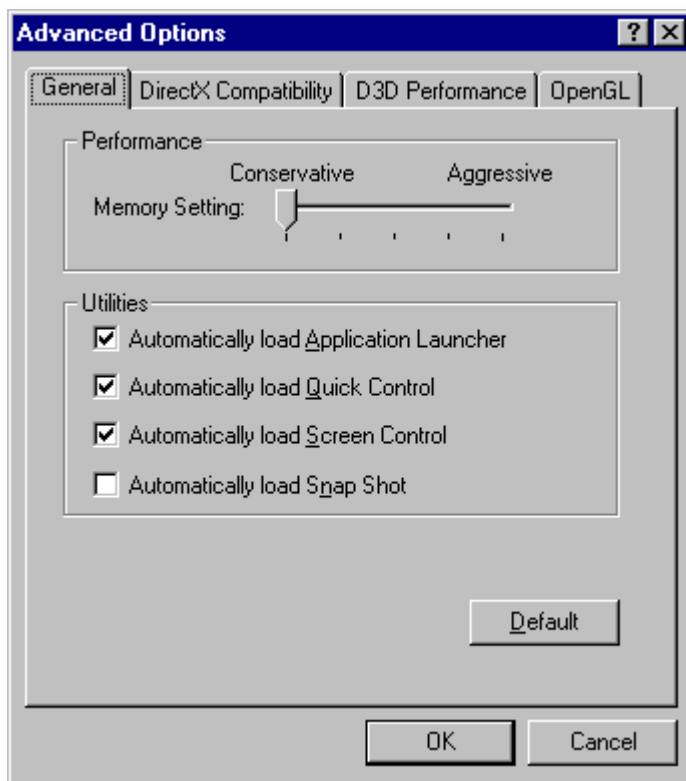
Click **OK**.

Automatically Loading the SPECTRA Utilities

The Application Launcher, Quick Control, and Screen Control utilities by default automatically load when starting Windows. This feature can be enabled or disabled in the Advanced Options dialog and also in each utility.

To enable or disable the automatically loading of the utilities:

1. Bring up the Control Panel's Display Properties window.
2. In Windows 95 click on the **SPECTRA Information** tab.
In Windows 98 click on the **Advanced...** button and then click on the **SPECTRA Options** tab.
3. Click the **Advanced...** button. This will bring up the Advanced Options dialog.



4. Click on the **General** tab to bring it to the front of the window.
5. In the Utilities section click on the checkbox to select or deselect the loading option of each utility.
6. Click **OK**.

Setting the Direct3D Compatibility Options

The Fog Table emulation and DirectX 5 compatibility options provide compatibility with games which may not correctly query the Direct3D hardware. The Enable Fog Table option is provided for games which always expect table fog support. The DirectX 5 compatibility option can be used if a game is not running correctly with DirectX 6.

To enable or disable the compatibility options:

1. Bring up the Control Panel's Display Properties window.
2. In Windows 95 click on the **SPECTRA Information** tab.
In Windows 98 click on the **Advanced...** button and then click on the **SPECTRA Options** tab.
3. Click the **Advanced...** button. This will bring up the Advanced Options dialog.



4. Click on the **D3D Compatibility** tab to bring it to the front of the window.
5. In the Options section click on the checkbox to select or deselect the option.
6. Click **OK**.

Setting the PCI Texture Memory Size

The amount of system memory used for storing textures (in addition to the video memory) can be set in the PCI Texture Memory size option. Up to half of the amount of system memory available can be used. This option is not available on AGP based cards.

To change the PCI Texture Memory size:

1. Bring up the Control Panel's Display Properties window.
2. In Windows 95 click on the **SPECTRA Information** tab.
In Windows 98 click on the **Advanced...** button and then click on the **SPECTRA Options** tab.
3. Click the **Advanced...** button. This will bring up the Advanced Options dialog.

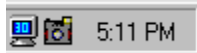


4. Click on the **D3D Performance** tab to bring it to the front of the window.
5. In the Options section select the size in MB from the list box.
6. Click **OK**.

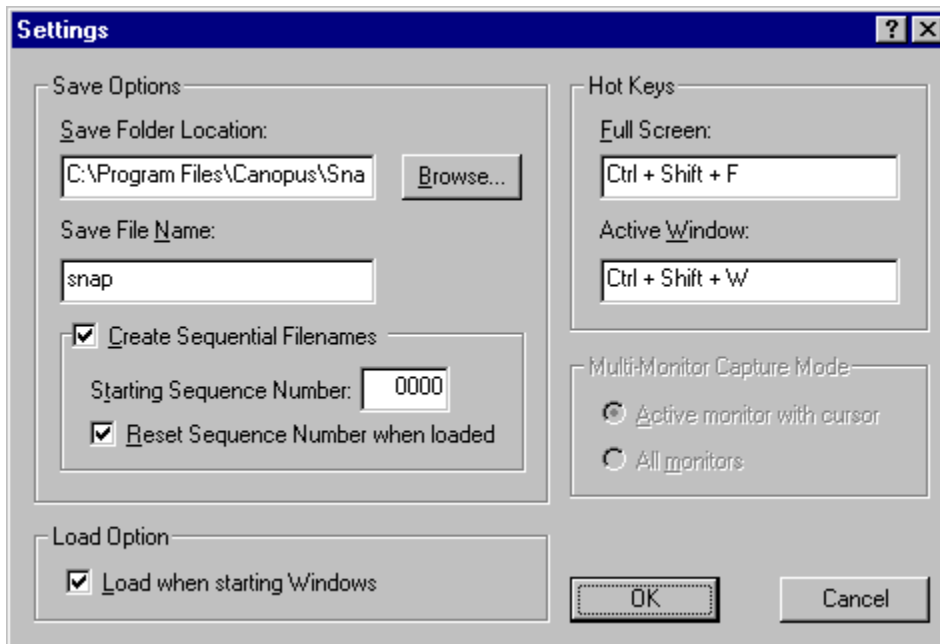
Using Snap Shot

Snap Shot is a Windows utility which captures screen or window images and automatically saves them to a file. It works in a multi-monitor environment and supports DirectDraw and Direct3D as well as secondary 3D graphics card screen captures.

Images are captured by hitting a hot key combination. These hot keys are defined in the Snap Shot Settings window. The Settings window can be accessed from the Snap Shot icon in the Windows Task Bar tray.



The saved image captures are stored in a file with an automatic numbering sequence. The file naming and the location of where the images are saved can be changed in the Settings window.




Setting Custom Timings for Your Monitor

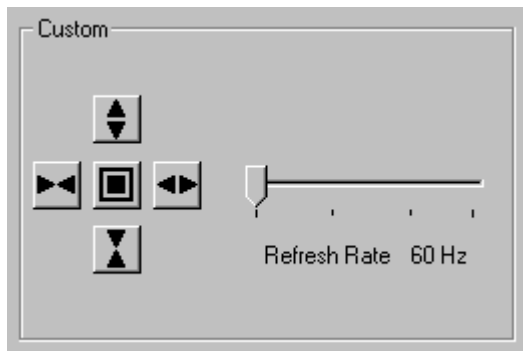
Important Information:

You can set custom refresh rates and adjust the screen width by using the Custom timings control. Please note there is a possibility to damage your Monitor if you use this control and set the timings to beyond the monitors capability. Only experienced users should use this control and do so at their own risk.

Note: The Custom timing is available when you specify Custom setting in Screen Control.

How to customize your display setting:

1.  Bring up the Control Panel's Display Properties window.
2. In Windows 95 click on the **SPECTRA Information** tab.
In Windows 98 click on the **Advanced...** button and then click on the **SPECTRA Options** tab.
3. Adjust the refresh rate and display position.



Increase the horizontal display width.



Decrease the horizontal display width.



Increase the vertical display height.



Decrease the vertical display height.



Restore the default setting.

You can select a custom refresh rate by moving the slider control. There is the possibility of selecting a refresh rate to high for your monitor and you may damage it.

Note: If the screen loses sync and goes blank you can restore the previous setting by hitting **Ctrl-Alt-Backspace**.

4. Click **OK** or **Apply**.

Capturing Pictures with V-Shot

V-Shot lets you capture first, process later:

Note: The VideoPort 600 is required for this feature.

1. Connect a video source, like a camcorder or VCR, to the **composite** video-in connector (it's a yellow RCA jack) on the back of your Total3D.
2. V-Shot will then display this live video in the large preview window on the left.
3. Click the big red button to capture an image.



4. A thumbnail preview will appear in the small window on the right.



5. Continue capturing pictures, until you are ready to [Process](#).

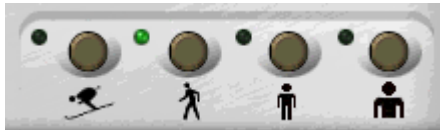
Processing Pictures

Once you have captured your pictures, it's time to process them:

1. Scroll through the thumbnail previews using the up/down arrow keys.



2. Once you have chosen a picture, pick a processing mode: fast moving scene, slow moving scene, still scene, or 1500x1125 resolution still scene:



3. You can also select a processed size (320x240, 640x480, or 750x562) using the Options menu. 640x480 is the default.
4. Click **Process** to process the captured data into a high quality still image. This will launch the [V-Shot Processor](#).
5. You can reprocess an image with different processing mode and size settings.

V-Shot Processor

Clicking Process launches the V-Shot Processor which turns the raw image data into a high quality still picture. You can then adjust the image attributes, save and print the picture.

File Menu

Save/Save As...:



Saves your picture in JPEG, TIFF, or BMP file format.

Set As Wallpaper:



Saves your picture and sets it as your Windows desktop wallpaper, either centered on the screen or tiled across it. You can remove this setting by going to the Display Properties control panel, clicking on the Background tab, and selecting a different Wallpaper.

Print:



Outputs the picture to a printer.

Print Preview:

Shows a preview screen of how the picture will be layed out on the page when printed. Click on Zoom In/Zoom Out for a more detailed view.

Printer Setup:

Selects a printer, the size of paper to be printed on, and the paper's orientation.

Exit:

Exits the V-Shot Processor.

Edit Menu

Copy:



Copies the processed image to the Windows clipboard.

Image Adjustment...:



Allows you to modify the image attributes of your picture, including contrast, brightness, and saturation.



By clicking on **Set As Global**, your adjustment setting will be saved for future use. If you select **Auto Adjust Image** in the V-Shot Options menu, this adjustment setting will automatically be applied every time you process an image.

View Menu

Fit Window to Image: 

If your desktop resolution is large enough, fits the window to display the entire image. Otherwise, maximizes the window.

Toolbar/Status bar:

Toggle display of the Toolbar and Status Bar.

Managing Your "Film"

V-Shot allows you to load and save unprocessed pictures as "film" files (*.flm file extension). Click on the **film** slider to Load and Save film:



Since these files can become very large, you should delete any unwanted pictures before saving your film. Use the delete button to do this:



V-Shot Options

Process Size

Sets the size of the image to process: 320x240, 640x480, or 750x562. To process an image at 1500x1125, select the 1500x1125 large still scene mode on the front of the camera.

Self Timer

Useful for taking a picture of yourself with a video camera. Select 5, 10 or 30 seconds. When you click the capture button, V-Shot will wait that amount of time before capturing an image.

Enable Sound

Toggles sound effects.

Always On Top

Always keeps the V-Shot camera as the top window on your desktop.

Process Immediately

Processes a picture automatically after capture.

Disable Bubble Help

Turns off the bubble help messages that are displayed as you move your cursor over an icon.

Auto Adjust Image

Automatically applies the global image adjustment setting when you process a picture. You can set this in the [V-Shot Processor](#).

Prompt for Delete

Prompts you before deleting an image from your "film".

Display Picture Number

Displays a picture number in the thumbnail preview window.

V-Shot TWAIN Support

To use the V-Shot TWAIN Driver:

1. From an image processing application, select the TWAIN source to be the "Canopus TWAIN Driver".
2. Acquire an image by using the "Acquire" or "Import" function of the image processing application. This action will start V-shot if it is not already running.
3. The video source should be playing in the V-Shot large preview window on the left. Click the red "snapshot" button to capture an image into the smaller thumbnail preview window on the right. You may also load previously saved Film files and then locate the desired image in the thumbnail preview window.
4. Click the "Process" button to send the image to your image processing application.
5. V-Shot will close automatically if it was not running before.

Note: V-Shot capture support only works in 16 and 32 bit pixel depth modes. The highest possible mode allowed in 16 bit mode is 1024x768 and in 32 bit mode is 800x600.

