


## Matrox PowerDesk

Use Matrox PowerDesk software to take full advantage of your Matrox graphics hardware and to access additional Matrox display-related features.

You can access many Matrox PowerDesk features with property sheets. These property sheets are in the Windows **Display Properties** dialog box. To access Matrox PowerDesk property sheets:

- n In Windows 95, right-click your Windows desktop background, then click **Properties**.
- n In Windows 98/2000, right-click your Windows desktop background, then click **Properties** à **Settings** à **Advanced**. If you're using a multi-display desktop, select a display before clicking **Advanced**.

Also, you can quickly access Matrox PowerDesk features with Matrox QuickDesk. Some PowerDesk features can only be accessed with QuickDesk.

For more information on Matrox PowerDesk software, see the rest of this guide and the context-sensitive help where available. To access context-sensitive help, click  on the title bar of a dialog box, then click the item you want help on. Right-click a help topic for a pop-up menu that lets you print or copy it.

See also...

- ∅ [Multi-display desktop](#)
- ∅ [Matrox QuickDesk](#)

## Using this guide

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This guide assumes you're familiar with basic functions like click, right-click and double-click, and that you're familiar with the basics of the operating system you're using. Also, we use the following conventions:

- n **Bold** for text that appears on-screen, subheadings and labels.
- n *Italics* for file names, paths, publication titles, and new terms.
- n ***Bold Italics*** for emphasis.
- n Keyboard keys in square brackets, with a plus sign separating keys that you press simultaneously. For example: press [Ctrl]+[Alt]+[Del] to restart your computer.
- n Arrows ("à") to separate ordered directions. For example, "click **OK** à **Close** à **OK**" is the same as "click **OK**, then click **Close**, then click **OK**".
- n [Green](#) for cross-references. If you're viewing online, click green text to jump to what is being referenced.

This is copyright information.

**Close**

Click this button to close the dialog box.

## **Apply**

Click this button to apply changes without closing the dialog box.

**Cancel**

Click this button to close the dialog box without making changes.

**OK**

Click this button to apply changes and close the dialog box.

This is a description for this dialog box or property sheet.



## **Reset**

Click this button to restore settings to their default values.

**Save**

Click this button to save changes made in the dialog box.

**Back**

Click this button to go back one step.

**Next**

Click this button to proceed with the next step.

No help topic is associated with this item.



## Matrox QuickDesk

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Use QuickDesk to quickly access Matrox PowerDesk features. To show or hide QuickDesk, use the check boxes on the Matrox PowerDesk **Options** property sheet.



When QuickDesk is running, its icon appears on your Windows taskbar. Pause your mouse pointer over this icon to see a pop-up tooltip identifying what desktop settings you're currently using. Click the icon to see the QuickDesk menu.

You can also double-click the QuickDesk icon to quickly open the **Display Properties** dialog box.

**Note:** One or more Matrox QuickDesk menu items may not be in the contents list of this guide. For information on a menu item not in the contents list, click the menu item and then see the context-sensitive help or the on-screen instructions.

See also...

∅ [Matrox PowerDesk](#)

## Desktop Schemes

Select this menu item to access or organize your desktop schemes. A desktop scheme is a saved combination of display settings. It includes resolution and color palette. If you're using a multi-display desktop, a desktop scheme also includes the virtual position of each display in your Windows desktop.

Click this menu item to see the following list of choices:

- n Any desktop schemes already defined will be listed by name. Click a name to switch to its settings.
- n Click **Add** to save your current desktop settings into a desktop scheme.
- n Click **Organize** to rename, delete or get information on a saved desktop scheme.



## Window Positions

Select this menu item to save and restore the position and size of program windows for your current desktop area.

The position and size of a window can only be restored if they were previously saved. A different set of window information is saved for each desktop area. This window information is saved until you shut down your computer, restart Windows, or log off Windows.

**Automatic** -- Select this menu item to have the position and size of windows saved at regular intervals. Also, with this option selected, the position and size of windows are automatically restored when your desktop area changes. To configure this feature, click **Settings**. (**Settings** is only available while **Automatic** is selected.)

**Note:** If you're using a multi-display desktop and the virtual position of a display is changed, your desktop area also changes.

See also...

- ∅ [Desktop area](#)
- ∅ [Multi-display desktop](#)

## Desktop Icons

Select this menu item to save and restore the positions of your desktop icons for your current desktop area.

The position of an icon can only be restored if it was previously saved. A different set of icon information is saved for each desktop area.

- n **Automatic** -- Select this menu item to have Matrox PowerDesk automatically save and restore your icon positions when your desktop area changes.
- n **Make All Visible** -- Select this menu item to move any off-screen desktop icons into your on-screen desktop area.

**Note:** If you're using a multi-display desktop and the virtual position of a display is changed, your desktop area also changes.

**Note:** To use these features, make sure the Windows **Arrange Icons** à **Auto Arrange** feature is disabled. To access this setting, right-click your Windows desktop background.

See also...

- ∅ [Desktop area](#)
- ∅ [Multi-display desktop](#)

## Desktop preview

This is a preview of how desktop icons will appear with the currently selected settings.

### **Snap icons to grid**

Use this box to configure grid settings for your desktop icons. Enable the check box to have each desktop icon automatically align to a square or rectangle in the grid. Move the sliders to adjust the size of each grid square or rectangle.

### Show grid on desktop

Enable this check box to see the icon grid on your desktop.

This check box is unavailable if the **Snap icons to grid** check box is cleared or if the Windows **Active Desktop** à **View as Web Page** feature is enabled.

### **Use a customized icon arrangement**

Enable this check box to customize the arrangement of your desktop icons. Click one of the buttons to select an arrangement style.

To apply the arrangement style you've selected: (1) click **OK** or **Apply**, (2) right-click your Windows desktop background, (3) click **Arrange Icons**, then (4) click the name of a sort option (**by Name**, **by Type**, **by Size**, or **by Date**).

**Note:** To use this feature, make sure the Windows **Arrange Icons** à **Auto Arrange** feature is disabled.

## Help

Click this menu item to access more information related to Matrox PowerDesk.

**Use multi-display features**

Enable this check box if you want to use extra multi-display features. Clear this check box if you don't want these features to be available.



**Save/restore window positions when programs are opened/closed**

When this check box is enabled, the size and position of program windows are saved when they're closed and restored when they're reopened.

This feature is unavailable if **Use multi-display features** is disabled.

### **Open program windows in display**

When this check box is enabled, program windows open in the center of the selected display. A display can only be selected if it's part of the current desktop.

If a program window is larger than the display area, the window is unaffected by this feature.

This feature is unavailable if **Use multi-display features** is disabled.

**Note:** The "**Save/restore window positions...**" feature takes precedence over this feature.

## Use CenterPOPUP

When this check box is enabled and you're using a multi-display desktop, dialog and message boxes open in the center of a display or program window, depending on which of the following options is selected.

- n **In parent program window** -- centers a dialog box in the window area of its parent program. (The "parent program" of a dialog box is the program that generates it.) If the parent program window spans multiple displays, a dialog box may also span multiple displays when it opens.
- n **In mouse pointer display** -- centers a dialog box in the display the mouse pointer is currently in (regardless of which display the parent program window is in).
- n **In parent program display** -- centers a dialog box in the display that contains the largest portion of its parent program window.
- n **In display** -- centers a dialog box in the display selected. A display can only be selected if it's part of the current desktop.

If the window is bigger than the current view area (the visible part of your desktop or display area), it's placed in the upper-left corner of the view area. This check box and its options are only available in multi-display mode.

This feature is unavailable if **Use multi-display features** is disabled.

**Note:** This feature only takes effect *after* you log on to Windows.

### Use MaxVIEW (DualHead only)

Enable this check box to control the way program windows are maximized. A program is maximized, for example, when you click the maximize button (  ) on its title bar. How windows are maximized depends on the option selected.

- n **In the display containing the window** -- Select this option if you want a program window to maximize in the display that already contains most of that window.
- n **In display** -- Select this option if you want program windows to maximize in the selected display.

If the check box is cleared, program windows are maximized across displays (that is, windows span displays while maximized).

This feature is unavailable if **Use multi-display features** is disabled.

**Note:** This feature only affects the main and secondary displays of a DualHead-supporting graphics card. This feature is only available if **DualHead Multi-Display** is enabled.

See also...

- ∅ [DualHead Multi-Display](#)

### Select Display

Click this button to select a display. You can only select a display that's currently part of your Windows desktop. The number of the currently selected display appears next to the button.

This feature is unavailable if **Use multi-display features** is disabled.

This describes the selected feature.

## Hot Keys

Click this menu item to define or change keyboard shortcuts for desktop schemes and Matrox PowerDesk features.

## Start Matrox DeskNav

Click this menu item to start the Matrox DeskNav program.

See also...

∅ [Matrox DeskNav](#)



**Start Matrox Diagnostic**

Click this menu item to start the Matrox Diagnostic program. This program may help you identify some display-related problems.

### Start Screen Saver

Click this menu item to start your screen saver right away. This menu item doesn't appear if "**(None)**" is selected under **Screen Saver** in your Windows display settings.

## Display Properties

Click this menu item to open the **Display Properties** dialog box.

See also...

∅ [Matrox PowerDesk](#)

### Close Matrox QuickDesk

Click this menu item to close Matrox QuickDesk. When QuickDesk is closed, its icon no longer appears on your Windows taskbar.

To open Matrox QuickDesk again, enable the "**Show Matrox QuickDesk icon on taskbar**" check box on the **Options** property sheet.

**Note:** Some Matrox PowerDesk features can only be accessed through Matrox QuickDesk.

See also...

- ∅ [Matrox PowerDesk](#)

## **Scheme list**

This is the list of existing desktop schemes.

### Maximum number of schemes in QuickDesk menu

Use this box to indicate the maximum number of desktop schemes you want to appear in the QuickDesk menu.

If you have more schemes than the number selected here, you can use the QuickDesk **More Schemes** menu item to access additional schemes. If you have a large number of schemes and the number selected here is too large, all the scheme names in the QuickDesk menu may not fit in your display.

## **Rename**

Click this button to rename the selected desktop scheme.

**Delete**

Click this button to delete the selected desktop scheme.



## **Apply**

Click this button to apply the selected desktop scheme.

### **Scheme preview**

This is a preview of the selected desktop scheme. To see display mode descriptions, move your mouse pointer over the preview.

## Schemes and features

This is a list of desktop schemes and Matrox PowerDesk features. You can define keyboard shortcuts for these schemes and features.

To define a keyboard shortcut, select a list item, click in the edit box that appears, press a key or combination of keys (for example, [Ctrl]+[F10]), then click **Save**.

### Keyboard shortcut

Click in this box, press a key or key combination (for example, [Ctrl]+[F10]), then click **Save** to define a keyboard shortcut for the selected list item.

"**None**" appears in this box if no keyboard shortcut has been pressed or if the keyboard shortcut pressed can't be used.



## Color

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Use this property sheet to:

- n Fine-tune your display's color balance.
- n Compensate for the lighting where your computer is.
- n Match the display colors of other monitors.

For information on each control of this property sheet, see context-sensitive help.

**Note:** If your Matrox graphics card has DualHead support, this property sheet is unavailable for your secondary display. With certain versions of Matrox PowerDesk, this property sheet may not be available at all.

## **Color temperature**

Move this slider to adjust the color temperature of your monitor. A "warm" setting causes your display's neutral gray color to have a yellow-red tint. A "cool" setting causes your display's neutral gray color to have a blue tint.

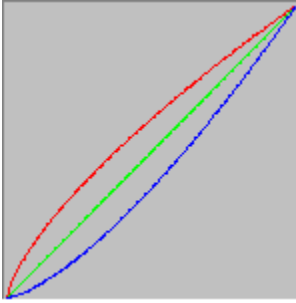
## Contrast

Move these sliders to change the contrast of the three primary colors of your monitor (red, green and blue). The contrast of a color is related to its gamma. Gamma, in this case, is a measure of the relationship between the brightness of a color on the screen and the amount of voltage the computer is sending to the monitor to generate that color.

Enable the **Link** check box, to keep the **Red**, **Green** or **Blue** sliders at the same level. When this check box is enabled, and you move a **Contrast** slider, you're changing the overall contrast of your display.



### Color curves display



This panel shows the tonal reproduction curve of the red, green, and blue colors of your display. This panel reflects any change you make with the **Color Temperature** and **Contrast** sliders.



## Options

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Use this property sheet to enable and disable various features and to control the performance settings of your Matrox display driver.

If you experience problems with Windows or a particular Windows program, you can try changing the settings of one or more of these check boxes (especially performance-related check boxes). For more information on each control, see context-sensitive help.

### **Prompt before applying desktop scheme**

Enable this check box if you want Matrox PowerDesk to prompt you for confirmation when you apply a new desktop scheme.

This feature is useful when display settings your monitor doesn't support are applied. In this case, your screen image may become garbled or unusable. If you don't respond to the on-screen prompt within 15 seconds, your original display settings are restored.

Clear this check box if you don't want to be prompted.

### **Automatically save/restore desktop icon positions**

When this check box is enabled, Matrox PowerDesk automatically saves and restores the positions of your desktop icons. Their positions are saved and restored each time you change your desktop or display area resolution.

**Note:** If you're using a multi-display desktop and the virtual position of a display is changed, your desktop area also changes.

### **Automatically save/restore window positions**

When this check box is enabled, Matrox PowerDesk automatically saves and restores the size and position of program windows. Their positions are saved and restored each time you change your desktop or display area resolution.

**Note:** If you're using a multi-display desktop and the virtual position of a display is changed, your desktop area also changes.

### **Show menus in visible display**

When this check box is enabled, Matrox PowerDesk makes menus appear in the visible part of your display area (your view area). This feature is useful when parts of your desktop area are outside your view area, as with the Matrox zoom feature.

**Note:** This feature doesn't affect the Windows 98/2000 **Start** menu.

### Show Matrox QuickDesk icon on taskbar



Enable this check box to show the Matrox QuickDesk icon on the Windows taskbar.  
See also...

∅ [Matrox QuickDesk](#)



### **Start Matrox QuickDesk when Windows restarts**

Enable this check box to have Matrox QuickDesk started each time Windows restarts.

See also...

∅ [Matrox QuickDesk](#)

## **Enlarge mouse pointer**

Enable this check box to double the size of your mouse pointer.

Your mouse pointer is enlarged only if it's being drawn by your Matrox graphics hardware -- that is, only if it's not being drawn by software. Your mouse pointer is being drawn by software if it's using a color palette with more than 16 colors.

**Note:** On the secondary display of a DualHead-supporting graphics card, your mouse pointer is always drawn by software. While using the "DualHead Multi-Display" feature with Windows 2000 or the "DualHead Clone" feature, both your main and secondary displays may use a mouse pointer that's drawn by software.

### **Use hardware to draw color mouse pointer**

Enable this check box to make sure a color Windows mouse pointer can be drawn by your Matrox graphics hardware. If a mouse pointer is drawn by hardware, it's less likely to flicker or disappear when it's over an area that's being redrawn quickly (for example, a video window).

If this check box is enabled and your mouse pointer uses a color palette with more than 16 colors, its color palette will be reduced. This may degrade the appearance of your mouse pointer. If you don't want the color palette of your mouse pointer to be reduced, use Windows controls to select a mouse pointer that uses a color palette with 16 colors or less, or make sure this check box is cleared.

**Note:** On the secondary display of a DualHead-supporting graphics card, your mouse pointer is always drawn by software. While using the "DualHead Clone" feature, both your main and secondary displays may use a mouse pointer that's drawn by software.

**Use polygon acceleration**

When this check box is enabled, hardware acceleration is used for drawing complex polygon objects. If complex polygon objects are not drawn properly within a particular application (likely a drawing or design package), de-select this check box.

### **Use device bitmaps caching**

When this check box is enabled, hardware acceleration is used to cache some bitmapped images in the graphics memory.

If you experience problems with a particular program (for example, some bitmaps aren't drawn properly), try clearing this check box.

### **Use bus mastering**

Enable this check box to use bus mastering with your Matrox graphics card. Bus mastering is a feature that allows expansion cards to perform tasks at the same time as your computer's CPU. If you have a fast Pentium computer (faster than 166 MHz), the display performance of most programs is improved when this check box is enabled.

To use bus mastering with 3D (DirectX) programs, your graphics card needs an interrupt request (IRQ). Most computers automatically assign an IRQ to graphics cards, but some don't. If your graphics card hasn't been assigned an IRQ, programs that use Matrox bus mastering may not work properly. For more information, see your Matrox or system manual.

Some older computers may not support bus mastering at all. Clear this check box if your computer doesn't support bus mastering.

Also, if you're using an analog joystick and you notice "jittering" (erratic display motion) with DirectX programs, try clearing this check box.

### **Use 32-bit Z-buffering**

Enable this check box to make a 32-bit Z-buffer available for programs that use Direct3D. Compared to a traditional 16-bit Z-buffer, a 32-bit Z-buffer allows for more accurate 3D depth calculations, but may slow down performance.

Not all Direct3D programs support a 32-bit Z-buffer.

**Use filtering when scaling**

When this check box is enabled, filtering methods are used to enhance the image quality when playing video files with scaling.



**Page flip during vertical blank**

When enabled, the DirectDraw/Direct3D driver will wait for the monitor's vertical blank before displaying a new frame image. Otherwise, the new frame will be displayed immediately.

Select this check box if you see "tearing" (fragmented animation) with your DirectX applications. Performance is generally better when this check box is cleared.

**Use 16-bit video quality**

When this check box is enabled and Windows is using a 256-color (8-bit) palette, the Matrox display driver uses a high-color (16-bit) palette to show digital video (AVI and MPEG files) on your computer screen.

### **Use fogging acceleration**

Enable this check box to activate "fogging" support in the Matrox Direct3D driver.

"Fogging" is a visual effect used by some 3D programs to enhance the illusion of depth. With this effect, things that are farther away disappear into what looks like fog. Programs that use the fogging effect should look more realistic.

When this check box is enabled, Direct3D fogging is accelerated.

When this check box is cleared, programs may either; (1) not use the fogging effect at all (which is faster), or (2) emulate fogging in their own software (which is slower).

If problems appear in your display while using the fogging effect, try clearing this check box.

### **Use secondary display controller as a Windows monitor**

Enable this check box to use the secondary display controller as a Windows monitor. With this feature, one graphics chip controls two monitors, each with separate displays.



## Information

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Use this property sheet to get specific information about your display hardware and software, including version numbers. For information on each entry on this sheet, see context-sensitive help.

## **Graphics hardware**

This box contains information on your graphics hardware.

**Model**

This is the model name of your current Matrox graphics card.



**Graphics chip**

This is the name of the graphics chip on your Matrox graphics card.

## Memory

This is the amount of graphics memory, in megabytes, installed on your current Matrox graphics card.

## **Memory type**

This is the type of memory on your graphics card.

## **RAMDAC**

This is the speed, in megahertz, of the RAMDAC (Random Access Memory Digital-to-Analog Converter) on your Matrox graphics card. The faster the RAMDAC on your graphics card, the better its graphics capabilities.

**Serial number**

This is the unique serial number identifying your current Matrox graphics card.

## Extra hardware

This lists any extra hardware on your Matrox graphics card.

"**(built-in)**" indicates a feature built into your Matrox card when it was manufactured.

"**(add-on)**" indicates a feature added to your Matrox card after it was manufactured.

### **Graphics software (versions)**

This box contains information on your graphics software.

## **Graphics BIOS**

This is the version of the BIOS (Basic Input/Output System) on your Matrox graphics card. This BIOS can be updated with software.



## Display driver

This is the version of the Matrox display driver currently installed. This software controls your Matrox graphics card.

## **Mini-VDD**

This is the version of the Matrox VDD (Virtual Device Driver) currently installed. The VDD handles basic (low-level) display functions that are specific to Matrox hardware. Other basic display functions are handled by the Windows VDD.

## **Kernel driver**

This is the version of the Matrox kernel driver currently installed. This kernel driver handles basic (low-level) display functions that are specific to Matrox hardware. Other basic display functions are handled by the Windows kernel.

## **Matrox PowerDesk**

This is the version of the Matrox PowerDesk software installed on your system.

**DirectDraw/Direct3D driver**

This is the version of the currently installed Matrox driver for DirectDraw/Direct3D. Some programs use this driver for more direct access to Matrox hardware.

## Microsoft DirectX

This is the version of Microsoft DirectX software currently installed. A recent version of DirectX must be installed for some programs to work properly.

Also, if a recent version of DirectX isn't installed, some Matrox PowerDesk features may not be available.

**Note:** The number shown is the version number reported by DirectX. The third digit of this number is the version commonly referred to. For example, DirectX 4.06.00.0318 would be commonly referred to as DirectX 6.

## **Customer support**

Click this button to see customer support information.

This is customer support information.



**[View Readme File](#)**

Click this button to view the Matrox PowerDesk "Readme" file. This file contains important information on your Matrox PowerDesk display driver and software.

**Go to Web Site**

Click this button to connect to the Internet for product information, customer support or software updates.



## TV Output

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Use this property sheet to change TV output settings.

For information on each control on this property sheet, see context-sensitive help.

This property sheet is only available if you have a G100- or G200-based Matrox graphics card with TV output support.

### Show display on TV

Enable this check box if you want to view or record your computer display on a TV or VCR connected to your computer.

When this check box is enabled, your computer display uses TV settings. TV settings have lower resolutions and refresh rates than typical computer monitor settings. Lower refresh rates may result in more noticeable flicker.

**WARNING:** Some computer monitors may not support the 50 Hz vertical refresh rate used with European TV settings. Some monitors may even be damaged if they use this refresh rate. For more information, see your monitor documentation.

## TV standard

Click one of these buttons to indicate the TV standard used by a TV or VCR connected to your computer:

- n **NTSC** -- is the TV standard used in North America and Japan, among other places.
- n **PAL** -- is the TV standard used in Europe and China, among other places.

If an incorrect TV standard is selected, the output from your computer may not appear or record properly on your TV or VCR. To find out what standard your TV or VCR supports, see its documentation.

## Advanced TV settings

Click this button to adjust advanced TV output settings. These settings only affect what you see or record on your TV or VCR.

This button is only available if **Show Display on TV** is enabled and the currently selected TV standard is applied.

See also...

- ∅ [Advanced TV Settings -- Recommendation](#)

## Advanced TV Settings -- Recommendation

Matrox default advanced TV output settings are good for viewing most computer graphics (for example, computer games or your Windows desktop) on most TVs. Based on broadcast standards, there are advanced TV output settings that are better suited for viewing full-screen video (for example, from a video file). These settings are:

n **NTSC**

Brightness: 180

Contrast: 234

Saturation: 137

Hue: 0

n **PAL**

Brightness: 167

Contrast: 255

Saturation: 138

Hue: 0

**Note:** For ideal settings, you may also need to adjust the settings on your TV. The default brightness, contrast, saturation and hue settings on most consumer video devices are higher than broadcast standards. These settings are usually OK for viewing video but may not look OK with computer graphics. (This is why Matrox default TV output settings are lower than what's ideal for video.) For more information on how to adjust settings on your TV, see your TV manual.



## **Image quality options**

Use these controls to change your TV image quality options.

These controls don't affect your computer monitor.

### **Anti-flicker**

Enable this check box to use "flicker reduction" with a TV or VCR connected to your computer. This may improve image quality.

This control doesn't affect your computer monitor.

**Black and white**

Enable this check box to show or record black and white video on a TV or VCR connected to your computer.

This control doesn't affect your computer monitor.

**Enhance text**

Enable this check box to slightly enhance the appearance of text on a TV or VCR connected to your computer. With this feature, text may appear sharper and more distinct.

Clear this check box if you don't want the TV signal from your computer to be altered in this way.

This control doesn't affect your computer monitor.

### **Reduce edge flickering**

Enable this check box to reduce a dot crawl problem for a TV or VCR connected to your computer with a composite video (RCA) cable (there's little effect with S-video). "Dot crawl" is a TV display problem that looks like a row of dots moving along edges in the image.

Clear this check box if you don't want the TV signal from your computer to be altered in this way.

This control doesn't affect your computer monitor.

**Show color bars on TV**

Click this button to show or record color bars on a TV or VCR connected to your computer. This is useful for testing the image settings for your TV or VCR.

This control doesn't affect your computer monitor.

### Output cable type

Use this box to indicate the type of cable you're using to connect the video output of your computer to your TV or VCR. Select one of the following:

- n **Composite or S-video** -- for composite or S-video cables. This is used most often, especially outside Europe.
- n **SCART - Composite** -- for a SCART cable with a composite video connector.
- n **SCART - RGB** -- for a SCART cable with RGB video connectors.

## **TV image settings**

Use the list box to select a TV control type, and then use the slider to change the setting for this control. These controls affect what you view or record on a TV or VCR connected to your computer.

These controls don't affect your computer monitor.

**Note:** Different image settings are saved for each TV standard (NTSC or PAL).



**Reset all image settings**

Click this button to restore settings for a TV or VCR connected to your computer. Settings are restored to their default values.

Restoring settings doesn't affect your computer monitor.



## DualHead

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Use this property sheet to control the DualHead features of your Matrox graphics card. With these features, a single graphics card can control two displays at the same time. The second display device connected to your Matrox graphics card can be a traditional computer monitor (CRT), a flat panel monitor, a TV or a VCR.

For information on each control of this property sheet, see context-sensitive help.

This property sheet is only available if your Matrox graphics card has DualHead support.

**DualHead disabled**

Select this button to disable the secondary display of your Matrox graphics card. You may need to restart your computer for this change to take effect.

Disable your secondary display if you're not using it. This may slightly improve the performance of your main display.

### **DualHead Clone, DVDMax, or Zoom**

Select this button to use the "DualHead Clone", "DualHead Zoom" or "DualHead DVDMax" features. These features let you use, at the same time, two display devices connected to your Matrox graphics card. Your secondary display device can be a traditional computer monitor (CRT), a flat panel monitor, a TV or a VCR.

- n With the "DualHead Clone" feature, you can view a copy of your main display on your secondary display. This is can be useful for presentations or for playing games with a TV.
- n With the "DualHead Zoom" feature, you can use your secondary display to view a zoomed-in area of your main display.
- n With the "DualHead DVDMax" feature, you can play digital video in a window on your main display and, at the same time, view that video full-screen on a TV.

See also...

- ∅ [Use DualHead Clone](#)
- ∅ [Use DualHead DVDMax](#)
- ∅ [Zoom Options](#)

## DualHead Multi-Display

Select this button to add a secondary display to your Windows desktop. Your secondary display device can be a traditional computer monitor (CRT), a flat panel monitor, a TV or a VCR.

To enable or disable this feature, your computer needs to be restarted. This button is unavailable in Windows 95. (Windows 95 doesn't support multiple displays.)

With this feature, Windows uses your Matrox graphics card as if it were two separate graphics cards. Use Windows controls to adjust the display settings of the secondary display. For more information on multi-display mode, see Windows 98/2000 help under "Multiple display support".

See also...

- ∅ [DualHead Multi-Display -- limitations](#)

## DualHead Multi-Display -- limitations

There are limitations with the "DualHead Multi-Display" feature. Unless otherwise indicated, these limitations only affect the secondary display:

- n You can only select a 16- or 32-bit color palette.
- n The Matrox zoom feature (PixelTOUCH) is unavailable.
- n The mouse pointer is drawn entirely by the software. As a result, the mouse pointer may flicker or disappear while it's in an area of the display that's being redrawn quickly (for example, a video window). Windows 2000 -- With this version of Windows, the mouse pointer is drawn entirely by software on both your main and secondary display.
- n The secondary display may have a lower maximum display resolution and a lower maximum refresh rate than the main display.
- n Digital video playback may be limited.
- n The performance of the main display may be slightly reduced.
- n The Sonnetech **Colorific** program isn't supported and, if your version of Matrox PowerDesk includes the **Color** property sheet, this property sheet is unavailable.
- n Windows 98 -- Regardless of your graphics card or display driver, this version of Windows only supports OpenGL acceleration with the primary display of your computer.
- n Windows 98 -- Graphics memory is divided equally between the main and secondary display. For example, if you have a 16 MB graphics card, the main and secondary displays each have 8 MB available to them. As a result, maximum display capabilities may be affected.
- n Windows 98 -- Because of a limitation with this version of Windows, the "DualHead Multi-Display" feature may not work if more than one graphics card is installed in your computer. (A graphics card may be built into the motherboard of your computer. A built-in graphics card can be enabled or disabled.)
- n Windows 2000 -- This version of Windows treats the main and secondary displays of a DualHead-supporting graphics card as a single display (which the Matrox display driver divides between two monitors). As a result, these displays always use the same resolution and color palette settings. Also, in your Windows desktop, the virtual positions of these displays are always aligned next to each other.

## Multi-Display Settings

Click this button to adjust DualHead multi-display settings for certain versions of Windows.

This button is only available with certain versions of Windows and while the **DualHead Multi-Display** button is selected.

See also...

- ∅ [DualHead Multi-Display -- limitations](#)



**Mode description**

This is a description of the currently selected mode.

### **Use DualHead Clone**

Enable this check box to view a copy of your main display on your secondary display.

This check box is only available while the **DualHead Clone, DVDMax, or Zoom** button is selected.

## Use DualHead DVDMax

Enable this check box to play digital video in a window on your main display and, at the same time, view that video full-screen on a TV connected to your Matrox graphics card.

This feature is used when (1) the **DualHead Clone, DVDMax, or Zoom** button is selected, (2) this check box is enabled, (3) a TV or VCR is connected to the second monitor connector on your Matrox graphics card, (4) the current display settings (resolution and color palette) aren't too high, (5) the "DualHead Zoom" feature isn't currently in use, and (6) digital video is played using the video overlay feature of your Matrox graphics card. Programs that use the video overlay feature include Microsoft Media Player, Zoran SoftDVD, and other programs that use ActiveMovie or DirectX Media.

This feature doesn't work with video played back using a hardware-based compressor/decompressor. However, automatic full-screen video playback on a TV may be available separately. For example, this feature is separately supported with the MJPEG video playback of the Matrox Rainbow Runner G-Series video editing card.

This check box is only available while the **DualHead Clone, DVDMax, or Zoom** button is selected.

See also...

∅ [DualHead DVDMax -- recommendation](#)

## Clone Options

Click this button to adjust "DualHead Clone" options.

This button is only available while the **DualHead Clone, DVDMax, or Zoom** button is selected and the **Use DualHead Clone** check box is enabled.

## DVDMax Options

Click this button to adjust "DualHead DVDMax" options.

This button is only available while the **DualHead Clone, DVDMax, or Zoom** button is selected and the **Use DualHead DVDMax** check box is enabled.

See also...

- ∅ [DualHead DVDMax -- recommendation](#)

### DualHead DVDMax -- recommendation

Video may appear squished on your TV if the aspect ratio of a video doesn't match the aspect ratio of your TV. To fix this: (1) click **DVDMax Options**, (2) select **Preserve aspect ratio**, (3) select the aspect ratio of your TV (4:3 or 16:9 -- most TVs are 4:3), (4) select **Detect based on video window size**, then (5) click **OK** or **Apply** for your changes to take effect.

## Zoom Options

Click this button to adjust "DualHead Zoom" options.

This button is only available while the **DualHead Clone, DVDMax, or Zoom** button is selected.

**Note:** While in **DualHead Clone, DVDMax, or Zoom** mode, you can enable and disable the "DualHead Zoom" feature with Matrox PowerDesk hot keys you define. The resolution used for your secondary display is based on the maximum display capabilities of your secondary display, and the size of the zoom area you selected on your main display. The feature will try to use a supported resolution that is larger (specifically, the next higher available resolution) than the zoom area you selected. If the feature is forced to use a display resolution that is smaller than the zoom area you selected, the zoom area appearing on your secondary display may not look as good (image detail may be distorted).

See also...

∅ [DualHead Zoom -- limitation](#)

### **DualHead Zoom -- limitation**

The "DualHead Zoom" feature doesn't display digital video that's using the video overlay feature of your Matrox graphics card. Many video playback programs use this video overlay feature. If the "DualHead Zoom" feature is used on a region that's using hardware-based video overlay, that region will appear as a solid color on your secondary display.



## TV settings

Click these buttons to adjust advanced TV output settings.

- n **DVDMax TV Settings** -- Click this button to adjust advanced TV output settings for the "DualHead DVDMax" feature. The default DVDMax TV settings are adjusted for viewing full-screen video (for example, from a video file).
- n **Desktop TV Settings** -- Click this button to adjust general advanced TV output settings. These settings are for the "DualHead Multi-Display", "DualHead Clone" or "DualHead Zoom" features. The default desktop TV settings are adjusted for viewing computer graphics (for example, computer games or your Windows desktop).

These buttons are only available if your secondary display is a TV or VCR.

**Note:** If you change advanced TV output settings for the DVDMax feature, these settings are only used while you're using this feature. If the DVDMax feature isn't being used, desktop TV output settings are used.

### **Max. secondary resolution**

If your secondary monitor is a non-Plug-and-Play computer monitor, use this box to indicate the maximum display resolution you can use with your secondary monitor. (The maximum resolution you're allowed to select is the maximum resolution your Matrox graphics card supports for the secondary display -- 1280 x 1024.) This resolution is used with the "DualHead Clone" or "DualHead Zoom" features.

If your secondary monitor is a Plug-and-Play (DDC) computer monitor, its maximum display resolution is automatically determined and that resolution is shown here.

**WARNING:** If your secondary monitor is a non-Plug-and-Play computer monitor and the maximum display resolution selected here is higher than what your secondary monitor can support, your secondary display may become garbled or unusable while a DualHead feature uses that resolution.

### **Keep optimal refresh when possible**

For the "DualHead Clone" feature, enable this check box to, when possible, use refresh rates on your main display that are higher than those on your secondary display. Higher refresh rates may result in less noticeable flicker. Different refresh rates can only be used if you're using a 16- or 32-bit color palette with your main display.

If optimal refresh rates aren't used (that is, this check box is cleared, or you're using a 8- or 24-bit color palette), both displays use the same refresh rate -- the highest available refresh rate supported by both displays: If your secondary display is a non-Plug-and-Play computer monitor, both displays use a standard 60 Hz vertical refresh rate. If your secondary display is a TV or VCR, both displays use TV settings. TV settings have lower resolutions and refresh rates than typical computer monitor settings.

**WARNING:** Some computer monitors may not support the 50 Hz vertical refresh rate used with European TV settings. Some monitors may even be damaged if they use this refresh rate. For more information, see your monitor documentation.

See also...

∅ [Keep optimal refresh when possible -- limitations](#)

### Keep optimal refresh when possible -- limitations

If you're using the "DualHead Clone" feature with different refresh rates for your main and secondary display, both displays have the following limitations:

- n The mouse pointer is drawn entirely by the software. As a result, the mouse pointer may flicker or disappear while it's in an area of the display that's being redrawn quickly (for example, a video window).
- n The maximum display resolution is limited by what both displays can support.
- n Digital video playback may be limited.
- n Display performance may be slightly reduced.
- n The Sonnetech **Colorific** program isn't supported and, if your version of Matrox PowerDesk includes the **Color** property sheet, this property sheet is unavailable.

## Hot Keys

Click this button to define or change keyboard shortcuts for Matrox PowerDesk features and options.

**Follow mouse pointer**

For the "DualHead Zoom" feature, enable this check box if you want the zoomed area in your secondary display to follow the mouse pointer in your main display.

**Smooth zoomed area**

For the "DualHead Zoom" feature, enable this check box if you want digital filtering applied to the zoomed area appearing on your secondary display. Filtering gives a smoother appearance and is good for general usage, while a non-filtered zoom is more appropriate for image editing.

## Aspect ratio

For the "DualHead DVDMax" feature, use these controls to choose how you want digital video to be resized on your secondary display (TV or VCR).

See also...

- ∅ [DualHead DVDMax -- recommendation](#)



**Always scale to full screen**

Select this button if you want digital video to display full-screen on your secondary display (TV or VCR).

If this button is selected and the aspect ratio of your digital video source isn't the same as your secondary display, video may appear stretched or squished when viewed on your secondary display.

**Preserve aspect ratio**

Select this button if you want the aspect ratio of your digital video source to be preserved when it's displayed on your secondary display (TV or VCR).

If this button is selected and the aspect ratio of your digital video source isn't the same as your secondary display, black borders will appear on your secondary display.

### TV aspect ratio

Select one of these buttons to indicate the aspect ratio of the video device (TV or VCR) you're using for your secondary display.

- n **4:3 (standard)** -- for a standard TV.
- n **16:9 (wide screen)** -- for a wide screen TV.

If the correct button isn't selected, video may appear stretched or squished when viewed on your secondary display.

### Aspect ratio detection method

Select one of these buttons to choose how the aspect ratio of the video is determined.

- n **Detect based on video source size** -- The resolution of source video determines the aspect ratio. For example, a video with a resolution of 320 x 240 has an aspect ratio of 4:3.
- n **Detect based on video window size** -- The size of the video window on your main display determines the aspect ratio. (Some video player programs may preserve the aspect ratio of the video even when the video window is stretched. In this case, the black borders displayed in the video window won't appear on your secondary display.)

## **Advanced settings**

Use these controls to adjust advanced settings for the "DualHead DVDMax" feature. These settings only affect how video appears on your secondary display (TV or VCR).

If you're experiencing problems with a specific video player program, try adjusting these settings. Settings that are appropriate for one video player program may not be appropriate for another. For more information, see context-sensitive help for each control.

### **Preserve source cropping**

Enable this check box to use the cropping settings of the video player program. This option needs to be enabled for some video player programs to display video properly on your secondary display (TV or VCR).

If this option is enabled, video playback performance may be reduced. Also, with some video player programs, the video display on your secondary display may be partially covered or cut off if the video window is partially covered or cut off.

**Scale only on page flip**

Enable this check box to improve video playback performance with some video player programs.

Clear this check box if video isn't being properly updated on your secondary display (TV or VCR). Specifically, clear it if only the first frame of a video is displayed, or if a video frame is updated only when the video window is moved.

**Use field-based scaling**

Enable this check box to use field-based scaling. If the video source is field-based (interlaced), this may improve video image quality. NTSC and PAL video are field based.

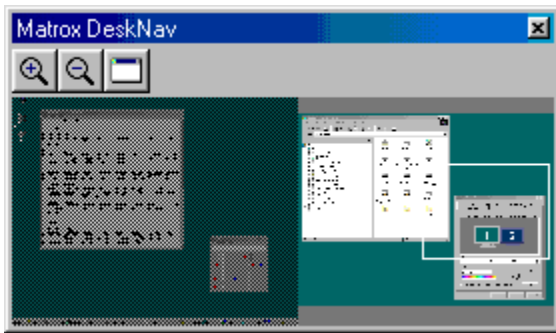
Clear this check box to use frame-based scaling and to possibly improve video playback performance. If the video source is frame-based (for example, MPEG1 video), clearing this check box may improve video image quality.





## Matrox DeskNav

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Use this program to zoom in on your Windows desktop area and to quickly move your view area. To start DeskNav, use the Matrox QuickDesk menu.

With the DeskNav desktop preview, you can "navigate" while you're using the Matrox zoom feature or a multi-display desktop. The desktop preview shows you an image of your current desktop, including what's off-screen while zooming. If you're using a multi-display desktop, the DeskNav desktop preview shows a representation of each display in your system.

You can double-click the preview area to move your mouse pointer to the corresponding location on your desktop. Right-click the preview area for a context menu.

While you're using the zoom feature, you can move your view area simply by clicking or dragging on the desktop preview. A rectangle in the desktop preview shows where your current view area is relative to your desktop area.

See also...

- ∅ [Matrox QuickDesk](#)
- ∅ [Multi-display desktop](#)

### **Always on top**

Enable this option for the DeskNav window to always appear over other windows.

**Show menu**

Use this control to show or hide DeskNav menus. You can access this control by right-clicking the DeskNav title bar.

**Show toolbar**

Use this control to show or hide the DeskNav tool bar.

**Show preview area**

Use this control to show or hide the DeskNav desktop preview area.

**Update preview**

Click this menu item to update the DeskNav desktop preview.

### **Proportional sizing**

Click this menu item to make the width and height of the DeskNav desktop preview proportional to the width and height of your actual desktop.



## Preferences

Click this menu item to open the DeskNav preferences dialog box. You can access this control by right-clicking the DeskNav title bar.

## **Window**

Click this menu to see a list of currently open program windows. To switch to one, click its name in the list. When you click a name, that program window becomes active and your mouse pointer is moved to the middle of it.



## **Zoom in**

Click this button to magnify part of your display area. Click again to magnify it more. When you magnify a display area, parts of it are outside the view area.

Two zoom factors are available, x2 and x4. The x4 zoom factor may be unavailable at display resolutions 800 x 600 and lower.

This button is unavailable if you're currently at the maximum zoom factor, if the selected display isn't supported by the PowerDesk display driver, or if you're using TV output mode.



### **Zoom out**

Click this button to zoom out from your view area. Click again to zoom out more. This button is unavailable if you're not currently zoomed in on part of your desktop.



## **CenterWINDOW**

Click this button to see a list of currently open program windows. To switch to one, click its name in the list. When you click a name, that program window becomes active and your mouse pointer is moved to the middle of it.

## Options

Use these controls to change DeskNav options.

### **Snap to corner**

Enable this check box if you want the DeskNav window to stay in a corner of the view area DeskNav is in.

If this feature is enabled and you want to move the DeskNav window to a different corner, simply drag the window close to a corner and it will "snap" into position.

### **Keep DeskNav in mouse-pointer display**

If you're using a multi-display desktop, enable this check box for the DeskNav window to automatically move to the display your mouse pointer is in.

This feature is only available if you're using a multi-display desktop and if **Snap to corner** is enabled.



**Center mouse pointer when changing view area**

Enable this check box to have your mouse pointer centered when you're using the Matrox zoom feature and you move the view area rectangle of the DeskNav desktop preview. Your mouse pointer will be centered in the view area you just moved.

### **Proportional sizing**

Enable this check box item to keep the width and height of the DeskNav desktop preview proportional to the width and height of your actual desktop.

### **Show desktop snapshot**

Enable this check box for the DeskNav desktop preview to show a "snapshot" of your Windows desktop.

Move the slider to adjust the quality of the preview. Higher-quality desktop snapshots may slow down system performance.

### Hide DeskNav in desktop snapshot

Enable this check box to hide the DeskNav window in the DeskNav desktop preview.

This check box is only available if **Show desktop snapshot** is enabled.

### **Automatically update desktop snapshot**

Enable this check box for DeskNav to periodically update the desktop preview snapshot. Move the slider to adjust how often DeskNav updates the desktop snapshot. Frequent updates of the desktop preview snapshot may slow down system performance.

These controls are only available if **Show desktop snapshot** is enabled.



## Results

Test results are displayed in this box.

**Test now**

Click this button to perform the selected tests.



Select the tests you want performed.

**Is recent DirectX software installed?**

Enable this check box to test for Microsoft DirectX software.

A recent version of DirectX must be installed for some programs to work properly. Also, if a recent version of DirectX isn't installed, some Matrox PowerDesk features may be unavailable.

### **Is bus mastering (for display acceleration) working?**

Enable this check box to test bus mastering.

See also...

∅ [Use bus mastering](#)

**Is another Matrox video editing card installed?**

Enable this check box to check if another Matrox video capture card is installed in your computer. Per computer, only one Matrox video capture card is supported.


**Is the add-on graphics memory module (if any) working okay?**

Enable this check box to test if a graphics memory add-on (if any) is compatible with the memory on your graphics card.



## More information

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Some help topics are only accessible through context-sensitive help. For context-sensitive help where available, click the "" button on the title bar of a dialog box, then click the item you want help on.

For additional information, click **Matrox QuickDesk** () à **Help** à **View Readme File**.  
See also...

∅ [Matrox QuickDesk](#)

## Color palette

The number of simultaneous colors the display driver can show. This number is based on the number of bits used to store the color information for each pixel. The higher the number of bits, the more simultaneous colors the display driver can show.

**Note:** With Matrox hardware, 3D acceleration is only available with a 16- or 32-bit color palette.

See also...

∅ [Pixel](#)



## Desktop area

The whole work area of your windowing operating system.

If you're using a multi-display desktop, your desktop area includes more than one display area. If you're not using a multi-display desktop, your desktop area and your display area are effectively the same.

See also...

- ∅ [Display area](#)
- ∅ [Multi-display desktop](#)

## Display area

The work area of a display in your windowing operating system.

If you're using a multi-display desktop, your desktop area includes more than one display area. If you're not using a multi-display desktop, your desktop area and your display area are effectively the same.

**Note:** To change display settings in Windows, right-click your Windows desktop background, then click **Properties** à **Settings**. To change your display area with Windows 95, move the **Desktop area** slider. With Windows 98/2000, move the **Screen area** slider.

See also...

- ∅ [Desktop area](#)
- ∅ [Display resolution](#)
- ∅ [Multi-display desktop](#)

## Display mode

The combination of a display resolution and color palette.

See also...

∅ [Color palette](#)

∅ [Display resolution](#)

## Display resolution

The number of horizontal by vertical pixels shown on your display. For example, a 640 x 480 display resolution is 640 pixels wide by 480 pixels high. Higher display resolutions can show more detail or information.

See also...

∅ [Pixel](#)

## Multi-display desktop

A desktop with more than one display.

With Windows 98/2000, you can use a multi-display desktop if you have more than one graphics card, or a multi-monitor graphics card, installed in your computer. The same Matrox PowerDesk display driver can control more than one Matrox graphics card if the model of each card is supported by the driver. For more information, see Windows 98/2000 documentation.

**Note:** Windows 95 doesn't support multi-display mode.

See also...

- ∅ [Desktop area](#)
- ∅ [Display area](#)

## **Pixel**

The smallest element that can be drawn on your display.



