matrox

This is a Matrox context-sensitive help file. For context-sensitive help, click the "?" icon on the title bar of your Matrox program, 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.

Cancel

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

OK

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

No help topic is associated with this item.

This box shows the currently selected system font size. Click the list box to select from a list of pre-defined system font sizes.

This box shows the currently selected color palette. The color palette is the number of simultaneous colors the Matrox display driver can show. Click the list box to select from a list of color palettes.

Click this button to access advanced Matrox display settings.

Click this button to create a custom system font size.

Click this button to delete the current display scheme. If there's no name in the box, this button is unavailable.

Click this button to save the current display settings or, if a name already appears in the box, to rename the current display scheme.

This is the model name of the graphics hardware controlling the currently selected display.

This is the name of the Matrox graphics chip for the current display.

This is the amount of graphics memory, in megabytes, for the current display.

This lists extra hardware features associated with the current display.

This is the memory address for the current display. When your computer is restarted, it assigns a memory address for each display in your system.

This is the maximum speed, in megahertz, of the RAMDAC (Random Access Memory Digital-to-Analog Converter) used by the currently selected display. A faster RAMDAC allows for higher display resolutions and refresh rates.

This is a unique serial number for the graphics chip controlling the currently selected display.

This is the version of the BIOS (Basic Input/Output System) associated with the currently selected display. This BIOS is software that's stored on your graphics hardware.

This is the version of the current Matrox display driver.

This is the version of the Matrox PowerDesk software (display driver utilities) installed on your system.

When this check box is enabled, Matrox PowerDesk prompts you before keeping your applied display settings. If you don't respond to the on-screen prompt within 15 seconds, your display will return to its previous settings. This feature is useful if you choose display settings your monitor doesn't support and you lose the monitor picture as a result.

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

Click the list box to select from a list of pre-defined display schemes. A display scheme is a saved profile with a specific desktop area, display area, color palette and font size setting.

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.

Note: Even when this check box is enabled, this feature isn't active when you're using a multi-display desktop.

Move this slider to increase or decrease your desktop area. Your desktop area is your entire Windows work space. This includes everything you see on-screen (display area) and includes off-screen area when you're using a "virtual desktop". You're using a virtual desktop when your desktop area is larger than your display area.

In multi-display mode, move this slider to cycle through all your possible desktop area configurations.

This is the currently selected resolution of your desktop area. Desktop resolution is measured in horizontal by vertical pixels.

Move this slider to increase or decrease your display area. Your display area is your on-screen work space.

This is the currently selected resolution of your display area. Display resolution is measured in horizontal by vertical pixels.

Use the CenterWINDOW feature to center the currently active program window inside the visible part of your display area (view area). This is useful if you're using a virtual desktop or the PixelTOUCH zoom feature and the currently active program window isn't in your view area. You can define a hot key (keyboard shortcut) for this feature by clicking in the box and pressing a key or key combination. The CenterWINDOW feature doesn't center windows larger than the current view area.

If you're using a multi-display desktop, the window is centered inside its current view area, and if the hot key is used again, the window is centered in the next display area.

Use the PixelTOUCH feature to zoom in on your current mouse pointer position. You can define a hot key (keyboard shortcut) for this feature by clicking in the box and pressing a key or key combination. Once your hot key is applied, you can use it repeatedly to cycle through the different zoom factors (x1, x2, x4, x1, and so on). The x4 zoom factor is unavailable at display area resolutions 800 x 600 and lower.

When you zoom in on your desktop area, parts of it are outside your view area. Move your mouse pointer to the edge of your view area to pan in that direction. If you're using a multi-display desktop, one display at a time is magnified -- the one the mouse pointer is in.

Click this box to select a pre-defined scaling percentage of the standard system font size.

Click and drag on this ruler to choose a scaling percentage (from 19% to 500%) of the standard system font size.

Desktop modes

These desktop mode buttons determine the type of desktop area you have. Pause your mouse pointer over a desktop mode button to see a pop-up tooltip identifying it. The desktop mode buttons are:

-  **No Virtual Desktop** -- Click this button for your desktop area to be the same size as your display area.
-  **Proportional Virtual Desktop** -- Click this button to have a desktop area proportionally larger than your display area.
-  **Horizontal Virtual Desktop** -- Click this button to have a desktop width approximately twice your display width.
-  **Vertical Virtual Desktop** -- Click this button to have a desktop height approximately twice your display height.
-  **Multi-Display Desktop** -- Click this to enable multi-display mode. In multi-display mode, more than one display can be part of your Windows desktop. This control is only available if your computer has Matrox graphics hardware that can support more than one display at a time.

See also...

- Multi-Display Desktop -- More information

This is the vertical refresh rate of the current display. A higher refresh rate results in less noticeable flicker in your display. Software monitor settings and display resolution determine refresh rate.

3D acceleration is active when you see this rotating cube.

This is the identification number for the current display. Each display in your system is numbered consecutively, starting from 1.

When this check box is enabled, a portion of the Matrox off-screen graphics memory is used to store the Z-value of each pixel. When drawing 3D images on-screen, the Z-value, or depth, of each pixel is compared with those of other pixels to determine which pixels are drawn and which are hidden. If this check box is cleared, Z-buffering is done in software or not at all.

Note: Even when this check box is enabled, Z-buffering is available only if there's enough graphics memory left and you're using a 16- or 32-bit color palette. Generally, higher resolutions use up more graphics memory.

When this check box is enabled, the driver won't wait for a vertical sync signal before drawing the mouse pointer. (A vertical sync signal is a signal generated by the graphics card to synchronize your monitor's video display.) Performance is slightly better with this check box enabled.

If your mouse pointer or the area around your mouse pointer doesn't display properly, try clearing this check box.

When this check box is enabled and if you have an Intel Pentium Pro/II/III processor in your computer, "write-combining" is used. In write-combining, several writes to computer memory are buffered in the CPU and then combined. This feature can accelerate some graphics memory data transfers.

If you have a Pentium Pro/II/III processor in your computer and you're having system errors (for example, your system stops running), try clearing this check box.

Note: This check box has no effect if you don't have a Pentium Pro/II/III processor in your computer.

Click this button to select another display in your system. Order is based on the ID number of each display. The display selected affects the information listed on this property sheet.

This box contains information on your graphics hardware.

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

This is the type of RAMDAC (Random Access Memory Digital-to-Analog Converter) for your current display. If the type is "integrated", the RAMDAC is built into the graphics chip.

Enable this check box for software to be able to use Matrox hardware-accelerated texture mapping. "Texture mapping" is a display technique where bitmaps (textures) are placed (mapped) onto 3D surfaces. Matrox texture mapping uses available graphics memory. Some software may run slower when this feature is used.

When the **Use 3D acceleration** check box is cleared, this feature is unavailable.

If the **VESA settings** button on the **Monitor** property sheet is selected, click this box to select monitor settings by vertical refresh rate. These settings are based on standards defined by the Video Electronics Standards Association (VESA).

Your vertical refresh rate is the number of times your graphics hardware refreshes the entire screen in one second, expressed in hertz (cycles per second). A higher vertical refresh rate results in less noticeable flicker in your display.

When using a monitor setting selection method other than **VESA settings**, this box shows only the current vertical refresh rate.

If you're using a Plug-and-Play (DDC) monitor and "(VESA)" appears in this box, then the refresh rate reported by your monitor isn't supported at the current display settings. In this case, the Matrox display driver is using VESA settings based on the refresh rate listed in this box.

Note: For multi-display desktops, changes in this box affect all monitors.

Enable this check box to use bus mastering with your Matrox graphics hardware. 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 hardware needs an interrupt request (IRQ). Most computers automatically assign an IRQ to graphics cards, but some don't. If your graphics hardware 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.

Click this button to see customer support information.

These are general performance controls.

These are 3D performance controls.

Enable this check box to turn on Matrox hardware acceleration for 3D (OpenGL) programs. This enables the "Z-buffering" and "double-buffering" features, which are basic to all types of Matrox 3D acceleration.

When this check box is cleared, other types of 3D acceleration are unavailable.

Enabling this check box affects the way program windows are maximized. A program is maximized, for example, when you click the maximize button () on its title bar.

If you're using a virtual desktop and this check box is enabled, program windows are maximized inside the visible part of your desktop or display area.

If a program window spans more than one display and this check box is enabled, the program window maximizes over the whole desktop area. If a program window doesn't span more than one display, the window maximizes in the display it's currently in.

Note: You can temporarily disable the MaxVIEW feature by holding down the [Shift] key while maximizing a window.

Enabling this check box affects the way program windows are maximized. A program is maximized, for example, when you click the maximize button () on its title bar.

If you're using a virtual desktop and this check box is enabled, program windows are maximized inside the visible part of your desktop or display area.

If a program window spans more than one display and this check box is enabled, the program window maximizes over the whole desktop area. If a program window doesn't span more than one display, the window maximizes in the display it's currently in.

If **Single Monitor Only** is enabled, a window always maximizes in a single display. If a program window spans more than one display, the window maximizes in the display containing most of it. (**Single Monitor Only** is only available in multi-display mode.)

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.

- **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.
- **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).
- **In parent program display** -- centers a dialog box in the display that contains the largest portion of its parent program window.
- **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.

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

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.

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

This feature is only available in multi-display mode.

When this check box is enabled, single-display mode is always used before you log on to Windows. After you log on, your selected multi-display desktop settings are applied.

This feature is only available in multi-display mode.

When this check box is enabled, all windows (including dialog and message boxes) are limited to one display at a time. They can be moved from one display to another, but they can't be resized or moved to span more than one display.

This feature is only available in multi-display mode.

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 only available in multi-display mode.

Enable this check box to have your Matrox graphics card accelerate DirectDraw functions while you're in single-display mode. This feature may improve the performance of programs that use DirectDraw.

With this feature, you can't run more than one DirectDraw program at a time. To avoid this limitation, clear this check box.

This check box is only available if you're using a Matrox MMS graphics card and you're in single-display mode.

Enable this check box to make a 32-bit Z-buffer available for programs that use OpenGL. 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 OpenGL programs support a 32-bit Z-buffer.

DualHead

Use this property sheet to control DualHead features. With DualHead features, a single graphics chip can control two displays at a time.

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

Note: DualHead controls are only available if, when Windows restarts, a secondary display is connected to your DualHead-supporting graphics hardware.

Note: With certain programs and certain types of digital video, you may experience problems viewing digital video with your secondary display. For example, digital video may appear as a solid color or video may not play at all. To avoid such problems, you can view video with your main display.

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

See also...

- DualHead disabled
- DualHead Multi-Display
- DualHead Clone
- DualHead Zoom

DualHead disabled

Select this to disable the secondary display of your Matrox graphics hardware. 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

Click this to enable the "DualHead Clone" mode. In this mode, you can use the "DualHead Clone" feature. 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.

While using this mode, you can also use the "DualHead Zoom" feature.

See also...

- Use DualHead Clone
- DualHead Zoom
- DualHead Clone -- Limitations

DualHead Clone -- Limitations

Note the following limitations with the "DualHead Clone" feature:

- This feature is unavailable if there aren't exactly two displays in your system (controlled by DualHead hardware).
- This feature is unavailable if a digital monitor is connected to your Matrox graphics hardware. (Digital monitors are typically flat panel monitors.)
- With this feature, both your main and secondary displays may need to use the same monitor settings (specifically, the same refresh rates). In this case, the monitor with the lower maximum settings will determine the settings that both monitors use.
- If you're using this feature and your secondary display is a TV, the vertical refresh rate of your secondary display (and possibly your main display) is determined by the TV standard selected on the **Monitor** property sheet (60 Hz for NTSC, 50 Hz for PAL). Depending on the model of your graphics hardware, you may be able to use the **Refresh frequency** control on the **Settings** property sheet to change the vertical refresh rate of your main display.
- If you're using this feature and your secondary display is a computer monitor, the **Monitor** property sheet is unavailable. In this case, you can use the **Refresh frequency** control on the **Settings** property sheet to change the vertical refresh rate for both your displays.
- While using this feature, the Matrox "virtual desktop" feature is unavailable.

WARNING: If you select a vertical refresh rate that isn't supported by both your displays, one or both displays may become garbled or unusable.

DualHead Multi-Display

Click this to add an extra display to your Windows desktop.

After enabling this mode, configure your multi-display desktop with the **Settings** property sheet. Specifically, make sure **Multi-Display Desktop** () is enabled and then move the **Desktop area** slider to the setting you want.
While using this mode, you can also use the "DualHead Zoom" feature.
See also...

- DualHead Multi-Display -- Limitations
- Desktop modes
- DualHead Zoom

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** button is selected.

See also...

- DualHead Clone

DualHead Zoom

Use these controls to configure the "DualHead Zoom" feature. With the "DualHead Zoom" feature, you can use your secondary display to view a zoomed-in area of your main display.

These controls are only available while you're using **DualHead Multi-Display** mode or **DualHead Clone** mode.

Note: With the "DualHead Zoom" feature, the resolution used for your secondary display is based on the maximum display capabilities of your secondary display, and on 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 - Enable (hot key)
- DualHead Zoom - Disable (hot key)
- DualHead Zoom - Select region (hot key)
- DualHead Zoom - Follow mouse pointer (hot key)
- DualHead Zoom - Snapshot to clipboard (hot key)
- DualHead Zoom - Snapshot to file (hot key)
- DualHead Zoom - Smooth zoomed area (hot key)
- DualHead Zoom - Follow mouse pointer (check box)
- DualHead Zoom - Smooth zoomed area (check box)
- DualHead Zoom -- Limitation

DualHead Zoom - Enable (hot key)

You can define a hot key (keyboard shortcut) for this feature by clicking in the box and pressing a key or key combination.

Use the **Enable** hot key to select a region on your main display which will be displayed full-screen on your secondary display.

DualHead Zoom - Disable (hot key)

You can define a hot key (keyboard shortcut) for this feature by clicking in the box and pressing a key or key combination.

Use the **Disable** hot key to disable the "DualHead Zoom" feature and to be able to use your secondary display for another DualHead feature.

DualHead Zoom - Select region (hot key)

You can define a hot key (keyboard shortcut) for this feature by clicking in the box and pressing a key or key combination.

If more than one DualHead Zoom region is defined, use the **Select Region** hot key to select one of these regions.

If your hot key includes a modifier key (for example, [Ctrl] or [Alt]), you can use arrow keys to select a region. To do this: (1) Press the hot key without releasing the modifier key. (2) Use the arrow keys to highlight a region. (3) Release the modifier key to select a highlighted region.

Note: While holding a modifier key, you can press [Delete] to remove a highlighted region from the region list.

DualHead Zoom - Follow mouse pointer (hot key)

You can define a hot key (keyboard shortcut) for this feature by clicking in the box and pressing a key or key combination.

Use the **Follow Mouse Pointer** hot key to control whether the zoomed area follows the mouse pointer in your main display while the "DualHead Zoom" feature is used.

DualHead Zoom - Snapshot to clipboard (hot key)

You can define a hot key (keyboard shortcut) for this feature by clicking in the box and pressing a key or key combination.

Use the **Snapshot to Clipboard** hot key to copy your currently zoomed area to the Windows clipboard. You can then paste this image in any program that supports bitmap (BMP) files.

DualHead Zoom - Snapshot to file (hot key)

You can define a hot key (keyboard shortcut) for this feature by clicking in the box and pressing a key or key combination.

Use the **Snapshot to File** hot key to save your currently zoomed area to a file. You can then use this image with any program that supports bitmap (BMP) files.

DualHead Zoom - Smooth zoomed area (hot key)

You can define a hot key (keyboard shortcut) for this feature by clicking in the box and pressing a key or key combination.

Use the **Smooth zoomed area** hot key to enable/disable digital filtering while using the "DualHead Zoom" feature. Filtering is good for general usage, while a non-filtered zoom is more appropriate for image editing.

DualHead Zoom - Follow mouse pointer (check box)

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.

DualHead Zoom - Smooth zoomed area (check box)

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.

DualHead Zoom -- Limitation

The "DualHead Zoom" feature doesn't display digital video that's using the video overlay feature of your Matrox graphics card hardware. 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.

DualHead Multi-Display -- Limitations

There are limitations with the "DualHead Multi-Display" feature.

- You can only select a 16- or 32-bit color palette.
- The Matrox zoom feature (PixelTOUCH) is unavailable.
- 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).
- Digital video playback may be limited.
- The performance of the main display may be slightly reduced.
- The maximum display resolution for both your main and secondary displays are limited by the maximum display resolution of your secondary display.

Multi-Display Desktop -- More information

In multi-display mode, the display driver can use up to 16 Matrox graphics chips at a time and can control up to 17 displays at a time. A graphics card may have more than one graphics chip and a DualHead-supporting graphics chip can support 2 separate displays at a time. To use multi-display mode, the display driver must support all the graphics hardware installed in your computer.

After multi-display mode has been enabled, move the **Desktop area** slider (on the Matrox **Settings** property sheet) to configure your multi-display desktop.

In multi-display mode, all displays use the same color palette and display resolution. The maximum display resolution you can select is determined by the display with the highest maximum display resolution.

If a display in your multi-display desktop doesn't support a selected display resolution, that display will automatically use a virtual display. With a "virtual display", parts of your "display area" are off-screen. You can move your mouse pointer to the edge of the screen to move the visible part of your virtual display. This virtual display feature is similar to using the Matrox zoom (PixelTOUCH) feature.

Note: The "virtual display" feature isn't available with the secondary display of DualHead-supporting graphics hardware. If a secondary display is part of your multi-display desktop, the maximum display resolution you can select is limited by the maximum display resolution of your secondary display.

Note: In multi-display mode, digital video playback may be more limited than in single-display mode. Specifically, some video playback programs may not start at all or play back with lower quality. You may be able to run the program and/or improve playback quality by closing the program, switching to single-display mode, and then restarting the program. If you have DualHead-supporting Matrox graphics hardware, video playback limitations may only apply to the secondary display of this hardware.

WARNING: Software monitor settings help determine the maximum display resolution for each display. If software monitor settings aren't properly selected for all displays and if an unsupported display resolution is selected, one or more displays may become garbled or unusable. For more information on selecting software monitor settings, see the online PowerDesk guide (online.doc).

See also...

- DualHead