



## **V8200 Series**

Programmable nFiniteFX™  
Graphics Card

# **USER'S MANUAL**

Hardware & Video Drivers

V8200 / Deluxe

V8200 / Pure

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# FCC & DOC COMPLIANCE

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## ***Federal Communications Commission Statement***

This device complies with FCC Rules Part 15. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with manufacturer's instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**WARNING!** The use of shielded cables for connection of the monitor to the graphics card is required to assure compliance with FCC regulations. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

## ***Canadian Department of Communications Statement***

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**This Class B digital apparatus complies with Canadian ICES-003.**

**Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.**

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# I. Introduction

Thank you for purchasing an ASUS V8200 GeForce3™ Graphics Card. With this purchase, you join an ever-increasing elite squadron of graphics enthusiasts.

Powered by the NVIDIA™ GeForce3™ graphics processing unit (GPU) and featuring the new nFiniteFX™ engine and DDR (Double Data Rate) memory with Lightspeed Memory Architecture™, the ASUS V8200 delivers not only cutting-edge graphics performance but also image fidelity regardless of the CPU (central processing unit) your computer system is using.

With the ASUS V8200, you will not only see but also experience dynamic, more realistic and compelling 3D worlds and characters.

## Highlights

- **Powered with the world's first programmable 3D graphics chip architecture** NVIDIA® GeForce3™ Graphics Processing Unit (GPU) with the new nFiniteFX™ engine
- **Built-in high speed DDR video memory with Lightspeed Memory Architecture™** Delivers earth-shattering performance and fluid motion even for the most complex scenes
- **Programmable vertex and pixel shader** Enables up to 32-matrix skinning, custom lighting and texture blending models
- **3.2 Billion Samples per Second FSAA Fill Rate, 800 Billion Operations per Second, 76 GigaFLOPS** Breakthrough performance improvement compared with the GeForce2 series
- **ASUS SmartDoctor™ Technologies** Provides the greatest operating safety for your valuable system
- **Optimized for DirectX® 8 and OpenGL® Features** Ensures broad application support

## Available Models

### *ASUS V8200 Deluxe*

- DDR Frame Buffer, VGA + Video-in + TV-out + 3D glasses (ASUS VR-100G Bundled Free)

### *ASUS V8200*

- DDR Frame Buffer, Pure VGA

# I. Introduction

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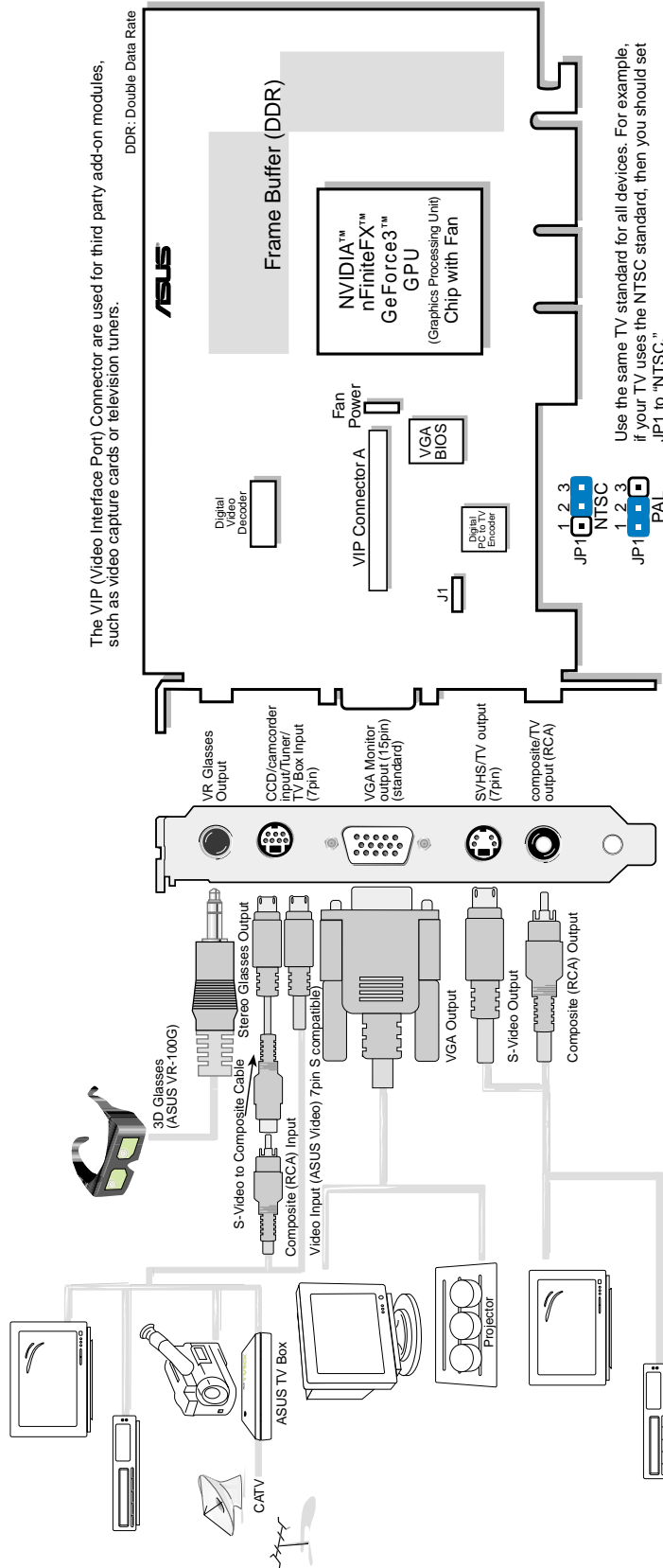
## Features

- The first programmable nFinite-FX™ Engine: Ability to create an infinite number of special effects that bring realistic 3D characters and environments to life
- 3.2 billion samples per second Full-scene Anti-aliasing (FSAA) fill rate
- 57 million transistors with 800 billion operations per second
- Raw computational power over 800 billion operations per second and 76 GigaFLOPS per second
- RenderScale Technology and Lightspeed Memory Architecture: Dramatically improve memory bandwidth efficiency up to 7.4GB/sec
- First to offer high resolution, high frame rate, Full-Scene Anti-aliasing (FSAA)
- Optimized for DirectX® and OpenGL® acceleration
- 8 texture-mapped, filtered, lit texels per clock cycle
- Single-pass multitexturing, 32-bit colors, Z/stencil buffer
- Advanced per-pixel lighting, texturing, and shading
- Cube environment mapping, bump mapping, S3 texture compression
- Programmable Vertex Shader offers complex animation to generate smooth animation and nature-look characters
- Programmable for lens effects, such as wide angle and fish eye
- Programmable for atmospheric effects, such as layer fog and volumetric fog
- Programmable Pixel Shader offers per-pixel Z-Correct reflective bump mapping
- Multibuffering (double, triple, quad) for smooth animation and video playback
- Multiple video windows with hardware color space conversion and filtering (YUV 4:2:2 and 4:2:0)
- AGP 4X / 2X / 1X complete support



# II. Hardware Setup

## ASUS V8200 Deluxe DDR Frame Buffer



### Item Checklist

- ASUS AGP-V8200 Deluxe Graphics Card (PAL or NTSC)
- ASUS VR-100G
- This User's Manual
- ASUS V8200 Series Driver & Utility CD Disc

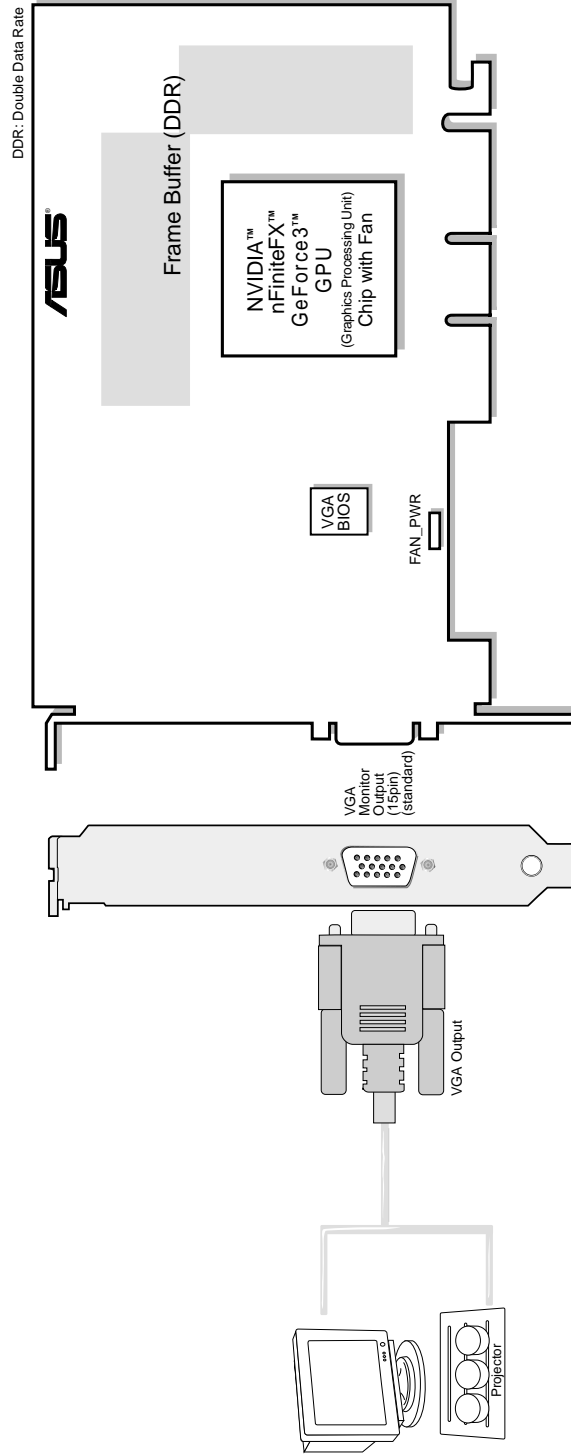
### Notes

- Use the same TV standard for all devices.
- and cannot be connected at the same time.

**II. H/W Setup**  
**AGP-V8200 TVR**

# II. Hardware Setup

## ASUS AGP-V8200 / Pure DDR Frame Buffer



### Item Checklist

- ASUS AGP-V8200 Graphics Card
- ASUS V8200 Series Driver & Utility CD Disc

## II. Hardware Setup

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## II. Hardware Setup

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**NOTE:** This graphics card series can only be installed in motherboards with an AGP slot.

**WARNING!** Computer boards and components contain very delicate Integrated Circuit (IC) chips. To protect the computer board and other components against damage from static electricity, you must follow some precautions.

1. Make sure that you unplug your power supply when adding or removing expansion cards or other system components. Failure to do so may cause severe damage to both your motherboard and expansion cards.
2. Keep all components such as the host adapter in its antistatic bag until you are ready to install it.
3. Use a grounded wrist strap before handling computer components. If you do not have one, touch both of your hands to a safely grounded object or to a metal object, such as the power supply case. Hold components by the edges and try not to touch the IC chips, leads, or circuitry.
4. Place components on a grounded antistatic pad or on the bag that came with the component whenever the components are separated from the system.

### Installation Procedures

#### New Systems

1. Unplug all electrical cords on your computer.
2. Remove the system unit cover.
3. Locate the AGP bus expansion slot. Make sure this slot is unobstructed.
4. Remove the corresponding expansion slot cover from the computer chassis.
5. Ground yourself to an antistatic mat or other grounded source .
6. Pick up the board (still in its sleeve) by grasping the edge bracket with one hand and then remove the plastic sleeve.
7. Position the card directly over the AGP slot and insert one end of the board in the slot first. Firmly but gently press the bus connector on the bottom of the card down into the slot. Be sure the metal contacts on the bottom of the host adapter are securely seated in the slot.
8. Anchor the board's mounting bracket to the computer chassis using the screw from the slot cover that you set aside previously.
9. Replace the cover on the system unit.
10. Connect your analog monitor's 15-pin VGA connector to the card and fasten the retaining screws (if any).
11. Connect other cables and devices if available -You are now ready to install the software drivers and utilities.

#### Systems with Existing VGA Card

1. Change your display driver to Standard VGA.
2. Shut down your computer and unplug all electrical cords.
3. Replace the existing VGA card with your graphics card.
4. Restart your computer.
5. Install your graphics card's display driver.

# III. Software Setup

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## Operating System Requirements

**NOTE:** This graphics card requires a motherboard with an AGP slot.

### Windows 98

Windows 98 includes VGARTD for the major chipsets but it is recommended that you install VGARTD from the support CD to make sure that you have the latest version of VGARTD (see **III. Software Setup | Install GART Driver**).

#### NOTES

- VGARTD stands for Virtual Graphics Address Remapping Table Driver, which is necessary to use the DIME feature of AGP. DIME means Direct Memory Execute, which is accessed *directly* by most AGP chips (when VGARTD is installed) for complex texture-mapping operations.
- For other notes or release information, see the README files in the installation CD disc.
- This Manual assumes that your CD-ROM disc drive is drive D: and that Windows is in C:\WINDOWS. Replace either with the actual location, if necessary.

# III. Software Setup

## Display Driver Installation

You can use one of the recommended methods to install the display drivers for your graphics card, depending on your operating system.

**NOTE:** The screen displays in this manual may not reflect exactly the screen contents displayed on your screen. The contents of the support CD are subject to change at any time without notice.

### Windows 98

Method 2 and Method 3 will not install the appropriate AGP GART driver if your motherboard does not use the Intel AGPset. Installing the AGP GART driver will ensure that the AGPset's AGP functions are available. Method 2 and Method 3 will not install also the DirectX runtime libraries. DirectX must be installed so that your video player can take advantage of hardware acceleration. See **III. Software Setup | Install GART Driver** and **III. Software Setup | Install DirectX** later in this manual for the setup steps.

#### Method 1: ASUS Quick Setup Program

**NOTE:** See **III. Software Setup | Drivers | Install Display Driver** for more information.

1. Start Windows.
2. Switch display to Windows' Standard Display Adapter (VGA) mode and then restart Windows.
3. Insert the CD installation disc into your CD-ROM drive.
4. The Install Shell appears. Click **Drivers** and then click **Install Display Driver** on the **Drivers** dialog box.

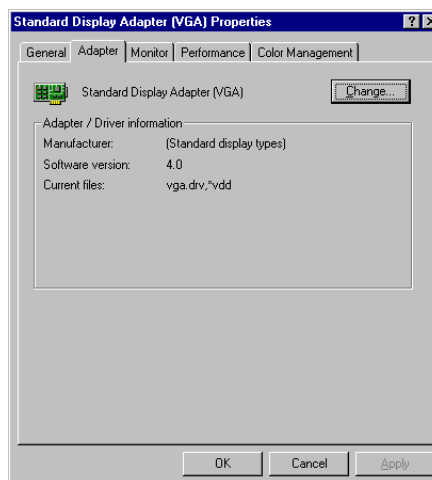


5. Follow the onscreen instructions to complete the setup.
6. When Setup has finished installing all the necessary files on your computer, it will prompt you to restart your computer. Click **Yes...** and then **Finish** to restart your computer and to complete Setup.

# III. Software Setup

## Method 2: Display Property Page

1. Start Windows.
2. Switch display to Windows' Standard Display Adapter (VGA) mode and then restart Windows.
3. Right-click the Windows desktop and click **Properties**.
4. Click the **Settings** tab and then click **Advanced**. The **Standard Display Adapter (VGA) Properties** dialog box appears.
5. Click **Change** on the **Adapter** tab. The **Update Device Driver Wizard** dialog box appears. Click **Next**, click **Display a list of all the drivers...** and then click **Next**.
6. Click **Show all hardware** and then click **Have Disk...**. When the **Install From Disk** dialog box appears, type the location of the ASUSNV9X.INF file and then proceed to step 9. Otherwise, proceed to the next step.
7. Click **Browse** to search the CD-ROM drive. In the **Drives** box of the **Open** dialog box, select your CD-ROM drive and then click **OK**.
8. In the **Folders** box, double-click the WIN9xME folder and then select ASUSNV9X.INF in the **File name** box.
9. Click **OK**. A list of video cards appears. Select your VGA card type for your operating system and then click **OK**.
10. The **Update Driver Warning** box appears. Click **Yes** to confirm the setting up of the ASUS enhanced display drivers and then follow the onscreen instructions to start the setup.
11. Setup will prompt you when it has finished installing all the necessary files on your computer. Click **Finish** to close Setup.
12. When you are returned to the **Standard Display Adapter (VGA) Properties** box, click **Close**. The **Display Properties** box appears. Click **Close**.
13. The system will prompt you to restart your computer. Click **Yes** to restart your computer and to complete Setup.

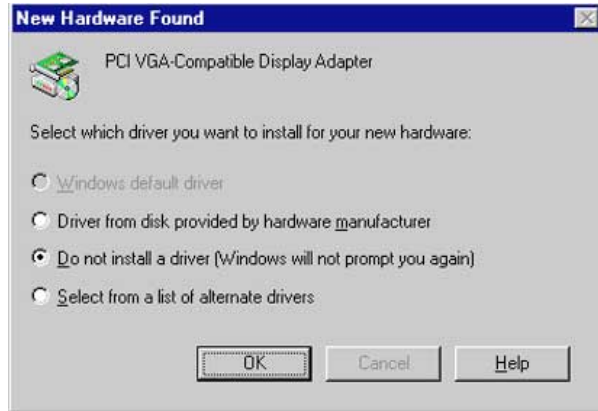


# III. Software Setup

## Method 3: Plug and Play

**NOTE:** Before proceeding with these steps, replace first your old VGA card with your new ASUS graphics card.

1. Start Windows.
2. When Windows detects your ASUS graphics card, the **New Hardware Found** dialog box appears.
3. Click **Driver from disk provided by hardware manufacturer**.
4. When Setup prompts you for the location of the driver, type D:\WIN9xME to direct Setup to the INF file and then click **Finish** to install the driver.
5. When Setup has finished installing all the necessary files on your computer, it will prompt you to restart your computer. Click **Yes** to restart your computer and to complete Setup.





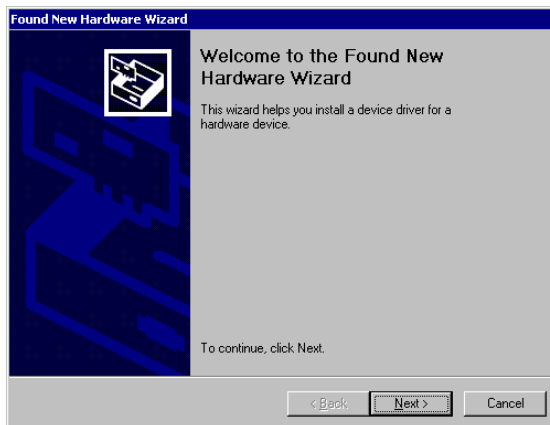
# III. Software Setup

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## Windows 2000

### *Method 1: ASUS Quick Setup Program*

1. Start Windows.
2. When Windows detects your ASUS graphics card, the **Found New Hardware Wizard** dialog box appears.
3. Click **Cancel** to enter the Windows desktop.
4. Insert the CD installation disc into your CD-ROM drive.
5. The ASUS Windows 2000 Install Shell appears. Click **Drivers** and then click **Install Display Driver** on the **Driver** dialog box.
6. Follow the onscreen instructions to complete the setup.
7. When Setup has finished installing all the necessary files on your computer, it will prompt you to restart your computer. Click **Yes** to restart your computer and to complete Setup



# III. Software Setup

## Method 2: Plug and Play

1. Start Windows.
2. When Windows detects your ASUS graphics card, the **Found New Hardware Wizard** dialog box appears.



3. Click **Next**.
4. When the next **Found New Hardware Wizard** dialog box appears, select **Search for a suitable driver for my device (recommended)** and then click **Next**.



5. Insert the CD installation disc into your CD-ROM drive to bring up the **Locate Driver Files** item of the **Found New Hardware Wizard** dialog box.



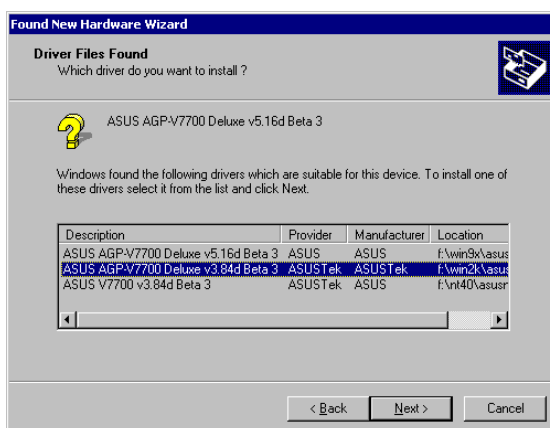
6. Check **CD-ROM drives**, uncheck all other options and then click **Next** to search for the drivers of your graphics card.

# III. Software Setup

- When the wizard has finished searching for driver files for your graphics card, select **Install one of the other drivers** and then click **Next** from the **Driver Files Search Results** item of the **Found New Hardware Wizard** dialog box.



- When prompted to select the display driver to install in your system, select the one that is located in the D:\WIN2K and then click **Next**.



- Follow the onscreen instructions to complete the setup.
- When Setup has finished installing all the necessary files on your computer, it will prompt you to restart your computer.

Click **OK** to restart your computer and to complete Setup.

# III. Software Setup

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## Windows NT 4.0

### *Method 1: Display Property Page*

**WARNING!** Before installing the display driver in Windows NT 4.0, make sure that you have installed **Windows NT 4.0 Service Pack 3 or later, to take full advantage of the AGP features of your card.** (You may download service packs at <http://www.microsoft.com/ntworkstation/downloads>.)

**NOTE:** The following steps assume your CD-ROM drive letter is D.

1. Start Windows NT, switch display properties to VGA mode (16 colors, 640 x 480 pixels), then restart your computer to make the change.
2. After your computer restarts, right-click the desktop and click **Properties**.
3. Click the **Settings** tab.
4. Select **Change Display Type**.
5. Select **Adapter Type** and click **Change**.
6. Click **Have Disk**.
7. Insert the CD installation disc.
8. Type **D:\NT40** or click **Browse** to select the path of the display driver for Windows NT. Click **OK**.
9. Select **ASUS V8200** and then click **OK**.
10. Windows NT will once again prompt for confirmation. All appropriate files are then copied to the hard disk. When all files are copied, go back to the **Display Properties** box by clicking **Close**. Click **Apply**.
11. The **System Settings Change** dialog box is displayed. Click **Yes** to restart Windows.
12. Windows NT will restart with the default settings. The Display applet will appear to allow for mode selection.

# III. Software Setup

## Drivers

- NOTES:**
- 1) The screen displays in this manual may not reflect exactly the screen contents displayed on your screen. The contents of the support CD are subject to change at any time without notice.
  - 2) Unless otherwise indicated, the procedures under **Drivers** apply to all the operating systems supported, namely, Windows 98, Windows 2000, and Windows NT 4.0.

## Install Display Driver

1. Insert the CD installation disc into your CD-ROM drive or double click the CD drive icon in My Computer to bring up the autorun screen or run **Setup.exe** in the root directory of your CD-ROM drive.

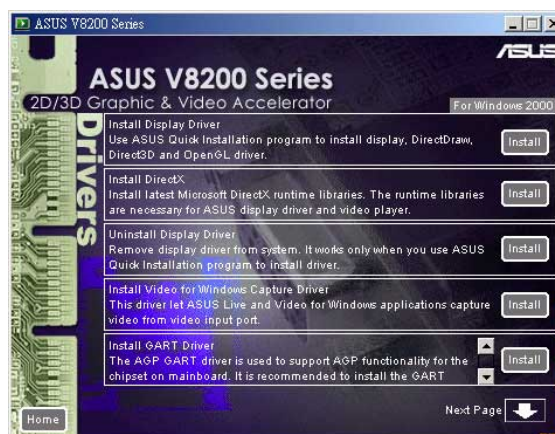
Click **Drivers**.

2. **Windows 98:** The **Drivers** box appears. Click **Install Display Driver** to install all the drivers and utilities into your computer. Setup will install the drivers in the following order: Display Driver (Direct3D and OpenGL Drivers), DirectX runtime libraries, and VGART driver. Just follow the on-screen instructions to complete the installation.

**Windows 2000:** Setup will only copy the display drivers.

**Windows NT 4.0:** SETUPNT.TXT will appear. Follow the instructions to install the display driver. You may refer to the installation procedures earlier in **III. Software Setup | Windows NT 4.0 | Method 1: Display Property Page**.

If you prefer to install the drivers individually, follow the steps on the following pages.





# III. Software Setup

## Install DirectX

### Windows 98/Windows 2000

Microsoft DirectX allows 3D hardware acceleration support in Windows 98/Windows 2000.

1. Insert the CD installation disc into your CD-ROM drive or double click the CD drive icon in My Computer to bring up the autorun screen or run **Setup.exe** in the root directory of your CD-ROM drive.

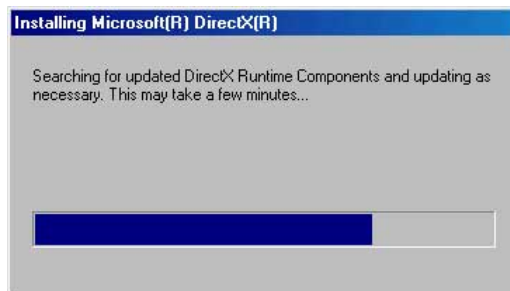
Click **Drivers**.



2. The **Drivers** box appears. Click **Install DirectX** to select the DirectX version you want to install.



3. The installation program will automatically install the DirectX 8 runtime libraries into your system.



4. Setup will prompt when it has finished copying all the files to your computer. Click **OK** to finish the installation.



**WARNING!** Some games written for older DirectX versions may not work properly under DirectX 8. Make sure that your applications or games support DirectX 8 before installing the DirectX 8 runtime libraries. DirectX 8 currently cannot be uninstalled by regular means, such as outlined in **III. Software Setup | Uninstall Display Driver**.

# III. Software Setup

## Install GART Driver

### *Windows 98/Windows 2000*

The AGP GART Driver is used to support AGP functionality for the chipset on your PC's motherboard. It is recommended to install the GART driver if it is newer than the one you have installed in your system. The GART driver is only necessary for an AGP graphics card.

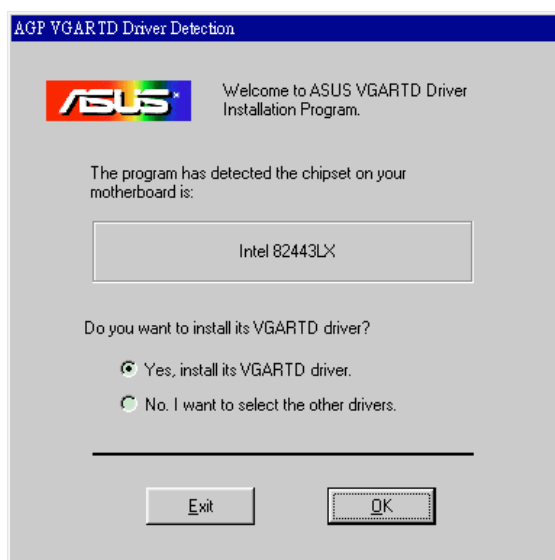
**NOTE:** Installation dialogs are slightly different for each chipset. Follow the on-screen instructions to finish the GART driver installation. The succeeding steps assume that you are installing for an Intel chipset.

1. Insert the CD installation disc into your CD-ROM drive or double click the CD drive icon in My Computer to bring up the autorun screen or run **Setup.exe** in the root directory of your CD-ROM drive.

Click **Drivers**.

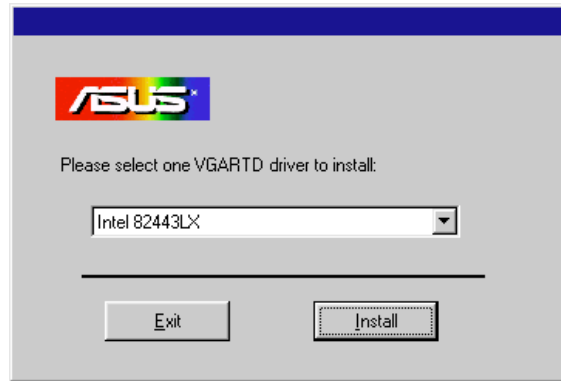
2. The **Drivers** box appears. Click **Install GART Driver** to install AGP support for motherboards with Intel, AMD, VIA, SiS, or ALi chipsets.

3. The **AGP VGARTD Driver Detection** box appears with the chipset detected on your motherboard. Click **OK** to install the appropriate driver for your AGPset.



# III. Software Setup

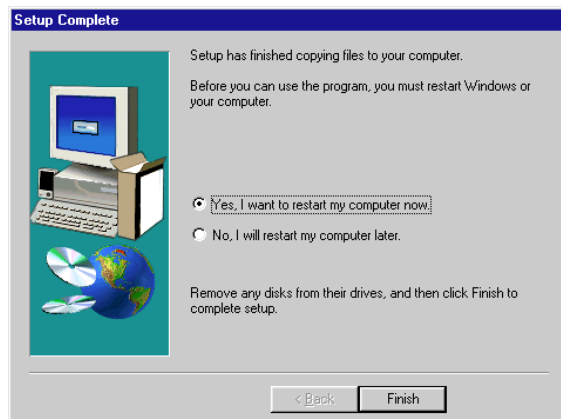
4. If you selected **No...**, on the previous screen before clicking **OK**, you will be presented with a selection of other drivers. Make your driver selection and click **Install**.



5. When the **Welcome** screen appears, click **Next** to continue.



6. Once the driver installation is finished, click **Finish**.





# III. Software Setup

## Install ASUS TWAIN Driver

*Only with Deluxe Model/Windows 98*

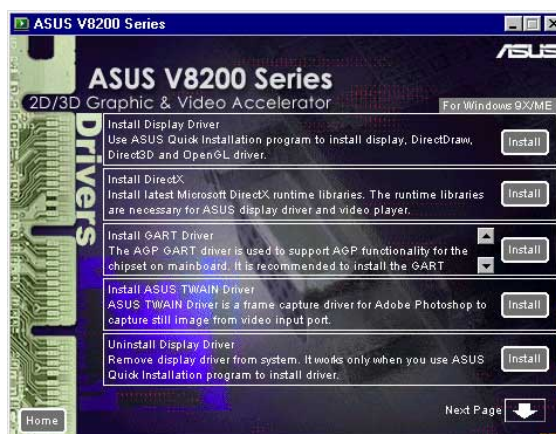
ASUS TWAIN Driver is a frame capture driver for Adobe Photoshop®, an image editing software. With this driver, you can capture still images through Photoshop using the video input port of your card (*Deluxe model/Windows 98 only*).

1. Insert the CD installation disc into your CD-ROM drive or double click the CD drive icon in My Computer to bring up the autorun screen or run **Setup.exe** in the root directory of your CD-ROM drive.

Click **Drivers**.

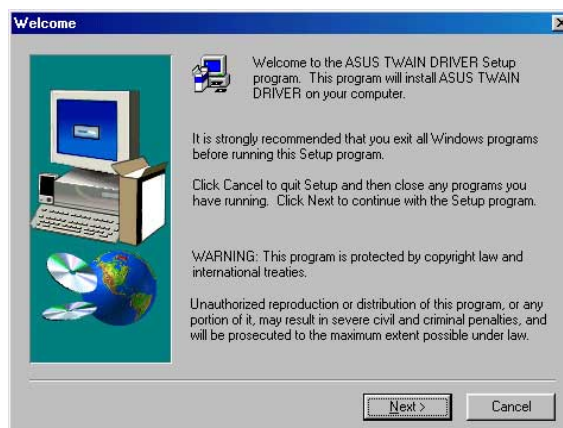


2. The **Drivers** box appears. Click **Install ASUS TWAIN Driver**.



3. When the **Welcome** box appears, click **Next** to start copying the files. Setup automatically starts copying the necessary files to the default folder.

To complete the installation, simply follow the on-screen instructions or prompts.



# III. Software Setup

## Uninstall Display Driver

If you want to update your display drivers or if you no longer need the display drivers for your card, you can use one of the following procedures to completely uninstall the drivers from your system to save disk space.

### Windows 98

#### Method 1: Using the Autorun Screen

1. Insert the CD installation disc into your CD-ROM drive or double click the CD drive icon in My Computer to bring up the autorun screen or run **Setup.exe** in the root directory of your CD-ROM drive.

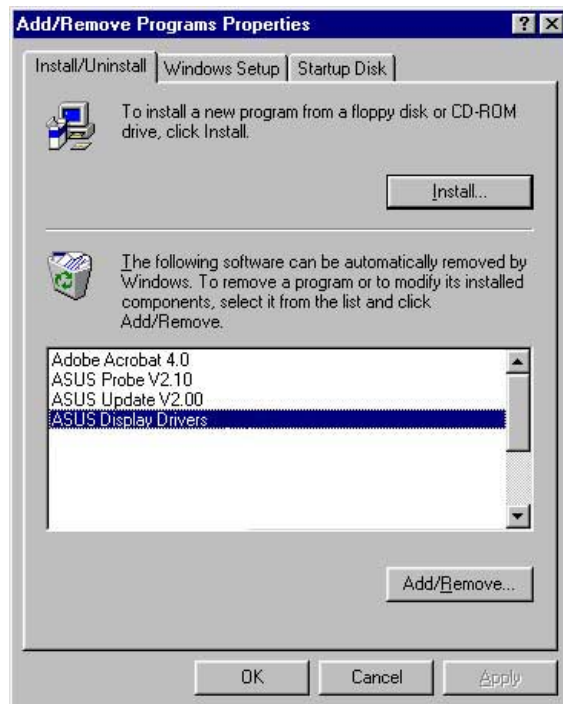
Click **Drivers**.

2. Click **Uninstall Display Driver** and follow the on-screen directions.



#### Method 2: Using Control Panel

1. Click **Start**, and then point to **Settings**.
2. Click **Control Panel**.
3. Double-click the **Add/Remove Programs** icon.
4. Click the **Install/Uninstall** tab.
5. Click **ASUS Display Drivers** from the list.
6. Click **Add/Remove**.
7. The system will prompt you to restart your computer. Click **Yes** to restart.



# III. Software Setup

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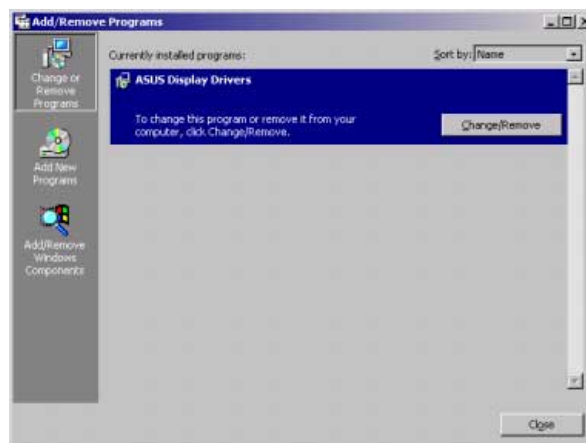
## Windows 2000

### *Method 1: Using the Autorun Screen*

See **Windows 98 | Method 1: Using the Autorun Screen** earlier in this section for the procedures.

### *Method 2: Using Control Panel*

1. Click **Start**, and then point to **Settings**.
2. Click **Control Panel**.
3. Double-click the **Add/Remove Programs** icon.
4. Click the **Change/Remove Programs** icon.
5. Click **ASUS Display Drivers** from the list.
6. Click **Change/Remove**.
7. The system will prompt you to restart your computer. Click **Yes** to restart.



## Windows NT 4.0

### *Method 1: Using Control Panel*

1. Click **Start**, and then point to **Settings**.
2. Click **Control Panel**.
3. Double-click the **Add/Remove Programs** icon.
4. Click the **Install/Uninstall** tab.
5. Click **ASUS Display Drivers** from the list.
6. Click **Add/Remove**.
7. The system will prompt you to restart your computer. Click **Yes** to restart.

# III. Software Setup

## Install WDM Capture Driver

*Windows 98/Windows 2000*

The WDM Capture Driver must be installed to use some of the latest VCR applications. The driver conforms to the Microsoft Windows Driver Model (WDM) standard.

1. Insert the CD installation disc into your CD-ROM drive or double click the CD drive icon in My Computer to bring up the autorun screen or run **Setup.exe** in the root directory of your CD-ROM drive.

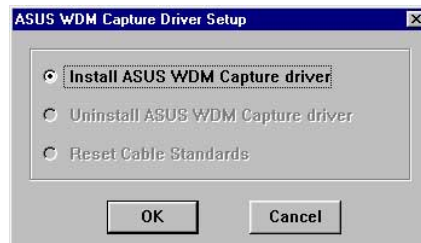
Click **Drivers**.



2. The **Drivers** box appears. Click the **Next Page** arrow and then click **Install WDM Capture Driver**.



3. When the **ASUS WDM Capture Driver Setup** box appears, click **Install ASUS WDM Capture driver** and then click **OK**.



4. When the **Installation** box appears, click the appropriate TV standard for your system and then click **OK**.



To complete the installation, simply follow the on-screen instructions or prompts.



# III. Software Setup

## Install Video for Windows Capture Driver

*Windows 2000/NT 4.0 Only*

The Video for Windows Capture Driver must be installed to use ASUS Live Video (see **IV. Software Reference | ASUS Live Video**). This driver conforms to the Microsoft Video for Windows standard.

1. Insert the CD installation disc into your CD-ROM drive or double click the CD drive icon in My Computer to bring up the autorun screen or run **Setup.exe** in the root directory of your CD-ROM drive.

Click **Drivers** and when the **Drivers** box appears, click **Install Video for Windows Capture Driver**.



To complete the installation, simply follow the on-screen instructions or prompts.

**NOTE:** Under Windows 98, the Video for Windows capture driver is installed during the installation of the display drivers.

# III. Software Setup

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# III. Software Setup

## Utilities

### Install ASUS Live Utility

The ASUS Live utility lets you view and capture video images from the card's video input port.

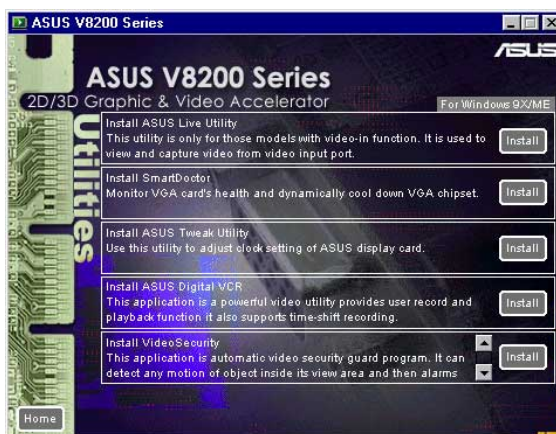
**NOTE:** Make sure that you have an ASUS graphics card with VIDEO-IN connector before attempting to install the utility.

1. Insert the CD installation disc into your CD-ROM drive or double click the CD drive icon in My Computer to bring up the autorun screen or run **Setup.exe** in the root directory of your CD-ROM drive.

Click **Utilities**.



2. The **Utilities** box appears. Click **Install ASUS Live Utility**.



3. When the **Welcome** box appears, click **Next** to start copying the files. Setup automatically starts copying the necessary files to the default folder.

To complete the installation, simply follow the on-screen instructions or prompts.



III. SW Setup  
Live Utility

# III. Software Setup

## Install SmartDoctor

SmartDoctor is a utility that monitors the card's graphic chip state, alerting users about abnormal events, such as a fan malfunction or chip overheat. Likewise, the utility "cools" down the graphic chip temperature when it is idle or returns it to its maximum capability when necessary.

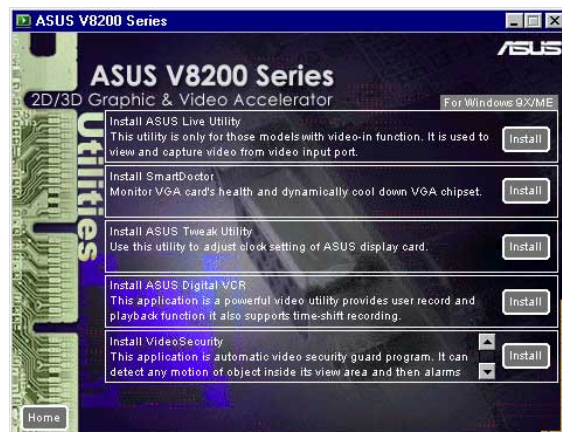
1. Insert the CD installation disc into your CD-ROM drive or double click the CD drive icon in My Computer to bring up the autorun screen or run **Setup.exe** in the root directory of your CD-ROM drive.

Click **Utilities**.



2. The **Utilities** box appears. Click **Install SmartDoctor**.

**NOTE:** If your graphics card is not equipped with a monitor IC, an error message warns you that monitor IC was not detected. The installation will abort. **SmartDoctor** works only with cards with a monitor IC.



3. When the **Welcome** box appears, click **Next** to start the installation.

To complete the installation, simply follow the on-screen instructions or prompts.





# III. Software Setup

## Install ASUS Tweak Utility

The ASUS Tweak Utility lets you control the core clock speed and the memory interface speed of your graphics card.

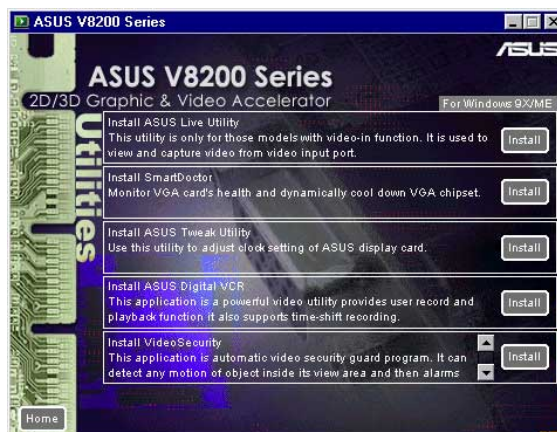
**WARNING!** Use this option with caution. Using this inappropriately may damage your card and cause your system to be unstable.

1. Insert the CD installation disc into your CD-ROM drive or double click the CD drive icon in My Computer to bring up the autorun screen or run **Setup.exe** in the root directory of your CD-ROM drive.

Click **Utilities**.



2. The **Utilities** box appears. Click **Install ASUS Tweak Utility**



3. When the **Welcome** box appears, click **Next**.

To complete the installation, simply follow the on-screen instructions or prompts.



# III. Software Setup

## Install ASUS Digital VCR

ASUS DigitalVCR, like the ASUS Live utility, lets you view and capture video images from the card's video input port. Digital VCR, however, provides extra functions, such as a playback module and TimeShifting™.

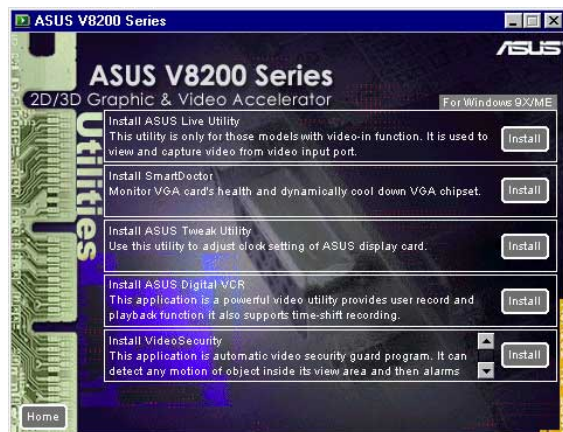
**NOTE:** Make sure that you have an ASUS graphics card with VIDEO-IN connector before attempting to install the utility.

1. Insert the CD installation disc into your CD-ROM drive or double click the CD drive icon in My Computer to bring up the autorun screen or run **Setup.exe** in the root directory of your CD-ROM drive.

Click **Utilities**.

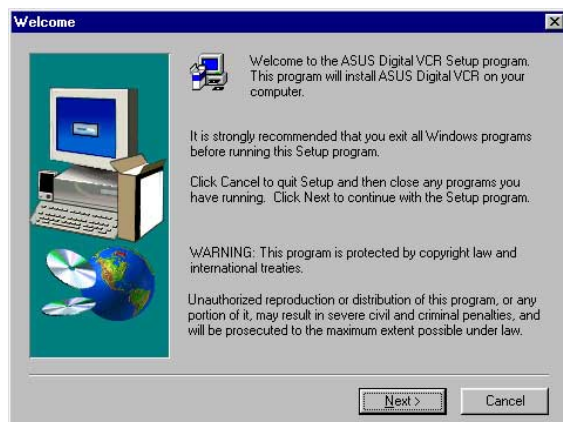


2. The **Utilities** box appears. Click **Install ASUS Digital VCR**.



3. When the **Welcome** box appears, click **Next** to start copying the files. Setup automatically starts copying the necessary files to the default folder.

To complete the installation, simply follow the on-screen instructions or prompts.



# III. Software Setup

## Install VideoSecurity

*Windows 98 Only*

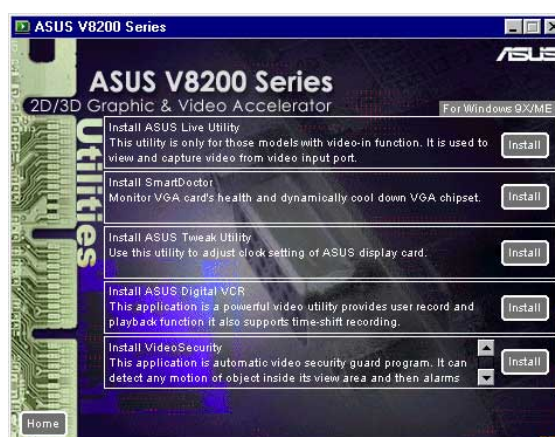
VideoSecurity is a powerful video stream comparison and detection utility that helps in detecting potential errors or intrusions at a specific time interval by using a video capture device, such as a digital camera.

1. Insert the CD installation disc into your CD-ROM drive or double click the CD drive icon in My Computer to bring up the autorun screen or run **Setup.exe** in the root directory of your CD-ROM drive.

Click **Utilities**.



2. The **Utilities** box appears. Click **Install VideoSecurity**.



3. When the **Welcome** box appears, click **Next** to start the installation.

To complete the installation, simply follow the on-screen instructions or prompts.



# III. Software Setup

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# IV. Software Reference

## ASUS Control Panel

(Windows 98/Windows 2000 only)

After installation of the display drivers, you will find an ASUS icon on the taskbar's status area. Clicking or right-clicking this icon opens the ASUS Control Panel, showing a menu composed of shortcuts of the graphics board's enhanced and other functions.

**NOTE:** Instead of clicking the ASUS Control Panel icon, you may right-click the Windows 98/2000 desktop, click **Properties**, and then click **Settings**. Under Windows 98/2000, click **Advanced** after clicking **Settings**. Click the appropriate tab to change your display settings.



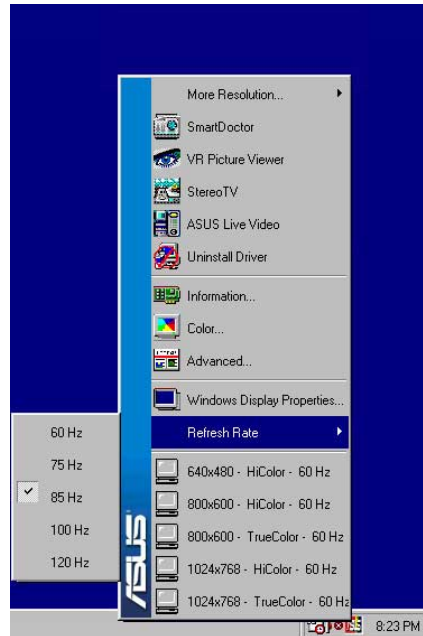
ASUS Control Panel icon 

## Refresh Rate

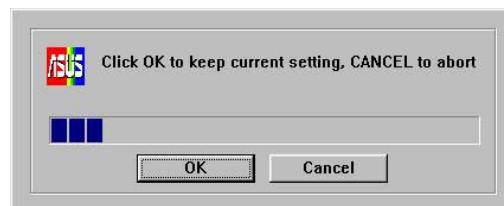
**Refresh Rate** lets you change the refresh rate of your current screen resolution.

**WARNING!** Be sure that the refresh rate that you select is supported by your monitor. Selecting a refresh rate that is beyond your monitor's specification may damage it. **Press ESC to restore your original settings in case of problems.**

1. Click/right-click the ASUS Control Panel icon, point to **Refresh Rate**, and then click the desired refresh rate.



2. The system will prompt you whether you want to keep the setting you just selected. Click **OK** to keep the setting, otherwise, click **Cancel** or press ESC.

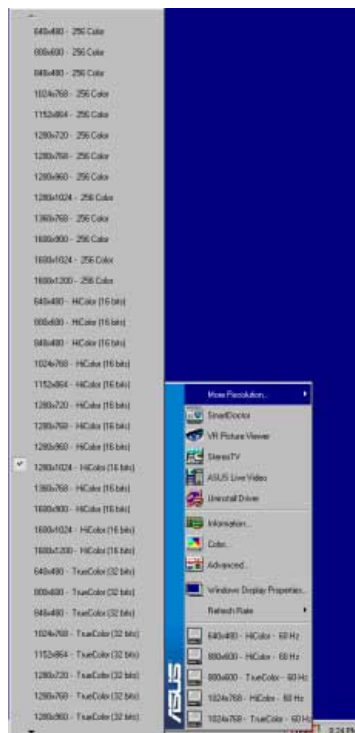


# IV. Software Reference

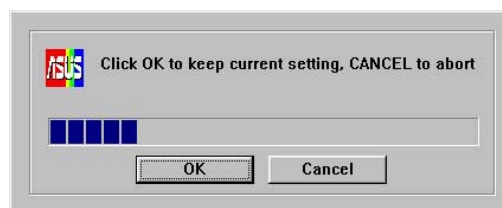
## More Resolution

**More Resolution** lets you change the screen resolution of your monitor.

1. Click/right-click the ASUS Control Panel icon, point to **More Resolution**, and then click the desired screen resolution. The system will automatically set the resolution selected without restarting your computer.



**WINDOWS95 USERS:** You will be prompted to restart your computer if you select a screen resolution with a different color depth, for example, from 800x600 HiColor to 800x600 TrueColor. Click **OK** to restart your computer to make the change.



## Information

**Information** lists the relevant information about your card. Aside from this, it has links to the ASUSTeK COMPUTER, INC. web site for updated information about the graphics board, latest drivers, and other information.



# IV. Software Reference



## Color

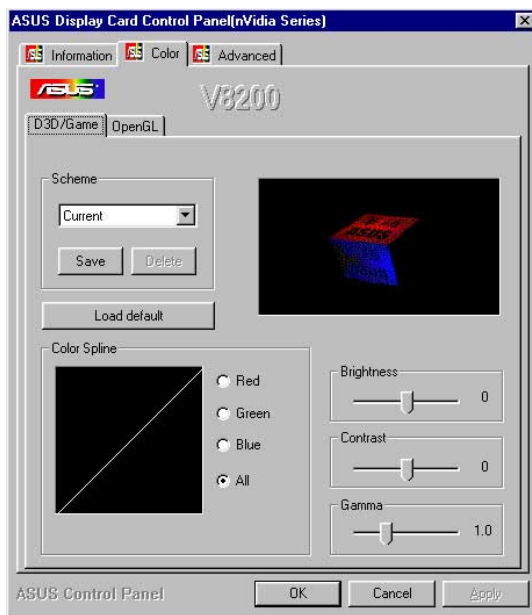
**Color** allows you to make color adjustments, such as brightness, contrast, and gamma values for each or all of the RGB colors. These adjustments can be made for D3D/Game and OpenGL. The color settings of D3D/Game and OpenGL are not adjustable under 8-bit color depth.

### *D3D/Game*

**D3D/Game** lets you make your favorite color settings for D3D games.

### *OpenGL*

**OpenGL** lets you make your favorite color settings for OpenGL applications.



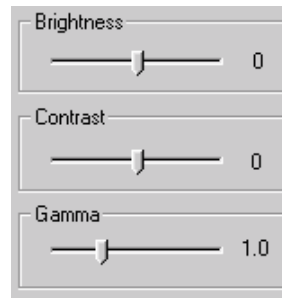
# IV. Software Reference

## General Functions

**Brightness / Contrast / Gamma**  
**Brightness / Contrast / Gamma** sliders let you calibrate the brightness, contrast, and gamma output of your display card.

### D3D/Game / OpenGL

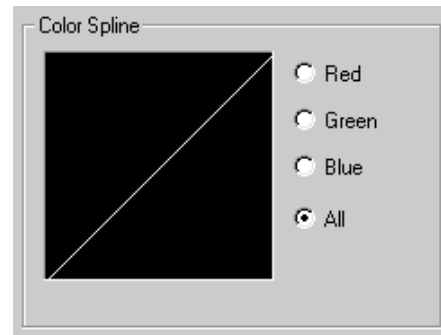
Changes to your color settings are shown immediately on your monitor.



Dragging a slider to the left decreases the level and to the right increases it. The number at the right of each slider displays the brightness (value range: -128 to +128, default: 0), contrast (-30 to 30, default: 0), or gamma value (0.2 to 3.0, default: 1.0).

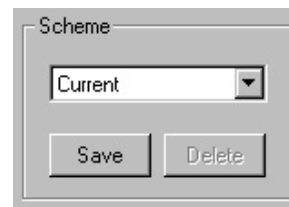
### Color Spline

**Color Spline** shows how each (R, G, or B) or all channels are distributed when you move the Brightness, Contrast, or Gamma slider to make your adjustments. You can adjust all channels at once (**All**) or individual channels (**R**, **G**, or **B**).



### Scheme

**Scheme** lists schemes that you can use to change the appearance of many screen elements simultaneously. You can use existing schemes, or create and save your own scheme by saving your current settings, or delete unwanted schemes. You may want to save a scheme that you created for some special situations, such as when you want to use the same settings when playing a certain game or a movie.



## Important Notes

### D3D/Game

The color settings of **D3D/Game** take effect only when you are playing a **full-screen** DirectDraw/Direct3D game.



# IV. Software Reference



## Advanced

**Advanced** provides some advanced settings for the ASUS VR-100G 3D Glasses (setting is available only with the Deluxe/TVR models—models with Video-In/TV-Out—or models with the ASUS VR-100 Optional Upgrade Kit).

### Direct3D

#### VR Effect

Lists all parameters to fine tune the stereoscopic effects for your Direct 3D games.

#### Enable Stereoscopic Mode

When selected, this enables you to use the stereoscopic mode when playing games or watching 3D videos. This mode is available only with the ASUS Deluxe/TVR models—models with Video-In/TV-Out—or models with the ASUS VR-100 Optional Upgrade Kit.

**NOTE:** You must quit all running DirectDraw/ Direct3D applications and then restart them for this option to take effect.

#### Load Default

Restores the settings to their defaults.

#### Depth

Adjust this to add more depth to the scene. When set to a too high value, eye discomfort/fatigue may occur.

#### Embossment

Adjust this to add more to the illusion of objects being pulled or popping out of the screen. See **On Screen Display** later in this section for details. When set to a too high value, eye discomfort/fatigue may occur.

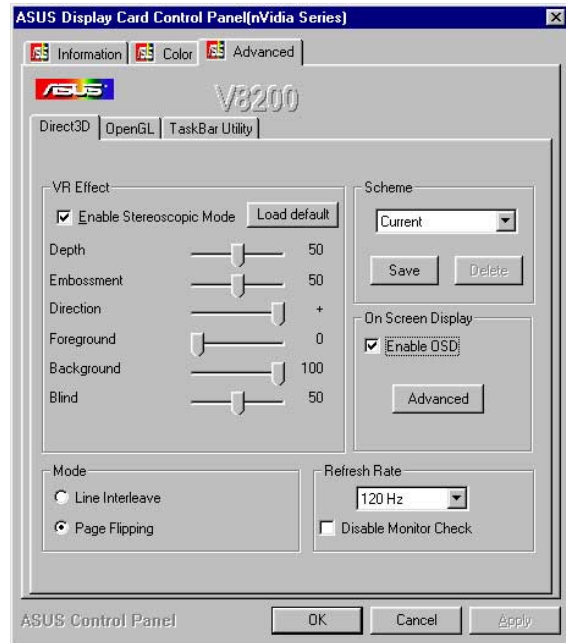
#### Direction

Move the slider to the left when adjusting Embossment does not give the expected effects (e.g., some objects being pulled or popping out of the screen and other objects being pulled into the screen) to some games. This should not be a concern because only a few games require the default “+” setting to be changed, that is setting it to “-”.



#### Foreground

Foreground is set in conjunction with Background to extend or stretch the histogram chart on the D3D OSD box to scale the depth of 3D objects. Some games require only a little range of Z to make bad stereoscopic effect. On the D3D OSD box, move the Foreground slider to the left to adjust Foreground to the Z value of objects stretched toward 0.0. On the Advanced dialog box (see above), several current games set their Foreground to 60.



#### Background

Background is set in conjunction with Foreground to extend or stretch the histogram chart on the D3D OSD box to scale the depth of 3D objects. On the D3D OSD box, move the Foreground slider to the left to adjust Foreground to the Z value of objects toward 1.0. On the Advanced dialog box (see above), several current games set their Background to 100.

#### Blind

Lets you discard “garbage” or crop the unwanted areas of your leftmost/rightmost display. Setting this to 0 will not discard any of the display area while setting it to a higher value will clear them.

#### Tips

1. Make sure that the 3D objects of your games do not appear extremely separated between the scenes of two eyes, especially near objects.
2. Make some objects appear outside your screen and other objects inside the screen. A ratio of 1:3 to 1:5 of objects outside and inside is recommended.
3. For car racing games, you can use Embossment to make just your car appear outside the screen.
4. For first-person shooting games, you can use Embossment to make just your hand/weapon appear outside the screen.

# IV. Software Reference

**IMPORTANT:** Before enabling stereoscopic mode and using your stereoscopic or 3D glasses (ASUS VR-100G), make sure that your monitor can support the selected refresh rate (interlaced mode) under the following display modes:

**16 bits:** 640 x 480, 800 x 600, 960 x 720, 1024 x 768, 1152 x 864

**32 bits:** 640 x 480, 800 x 600

**WARNING!** To prevent discomfort and eye fatigue when using your stereoscopic or 3D glasses, DO NOT try to use your 3D glasses for an extended period of time. Take frequent short breaks to give your muscles and eyes a chance to rest by taking off your 3D glasses and then looking up and focusing on distant objects.

## Mode

### Line Interleave

Select for better compatibility with most monitors, particularly monitors with less bandwidth or less range of horizontal/vertical frequency. Stereoscopic visual quality, however, will be poor because only half the number of vertical lines are generated with this mode.

### Page Flipping

Select for the best stereoscopic visual quality. Page Flipping provides double vertical resolution compared with Line Interleave. Your monitor must be able to support the high frequency (at least 100Hz) necessary for this mode.

## Refresh Rate

To prevent eye discomfort and fatigue, high refresh rates are preferred. Some monitors, however, may not be able to support a high refresh rate. Make sure that your monitor supports a selected refresh rate; otherwise, your monitor may become unstable, for example, a blank screen may occur.

### Disable Monitor Check

Lets you disable the specification check of your monitor.

**Note:** Choosing a resolution or refresh rate beyond the monitor specifications may damage your monitor.

## Scheme

Scheme lists schemes that you can use to change the appearance of many screen elements simultaneously. You can use existing schemes, or create and save your own scheme by saving your current settings, or delete unwanted schemes. You may want to save a scheme that you created for some special situations, such as when you want to use the same settings when playing a certain game or a movie.

## On Screen Display

### Enable OSD

When selected, this lets you open the D3D On Screen Display (you may use the defined **Hotkey**) and then adjust onscreen the settings of your 3D glasses and display card when playing Direct 3D games.

### Advanced

This lets you open the **Advanced** box.

#### Hotkey

This lets you assign hot keys to enable onscreen display or OSD. To use this function, select **Enable OSD**. You may want to change the default hot key (CTRL + ALT + O) when it conflicts with hot keys of certain games, video players, or Windows programs.

#### To change the default hot keys

1. With your mouse cursor in the **Hotkey** box, press the hot key combination of your choice (you can only define CTRL + ALT key combinations). Hot keys automatically include CTRL+ALT. Press any valid key (you cannot use ESC, ENTER, TAB, SPACEBAR, PRINT SCREEN, or BACKSPACE) you want to add to this combination. For example, to define the hot key combination CTRL+ALT+D, press D.

**NOTE:** The hot keys will be available only if you selected the **Enable OSD** check box.

# IV. Software Reference

## OSD Settings



Beetle Crazy Cup™ is copyright © 2000 by INFORGRAMES  
Original idea and development by XPIRAL™ (Efecto Caos S.L.)

The OSD settings include **Depth, Embossment, Direction, Background, Foreground, Blind, Brightness, Contrast, and Gamma**. See [IV. Software Reference | Advanced](#) for a description of the 3D glasses settings and [IV. Software Reference | Color](#) for a description of the display settings.

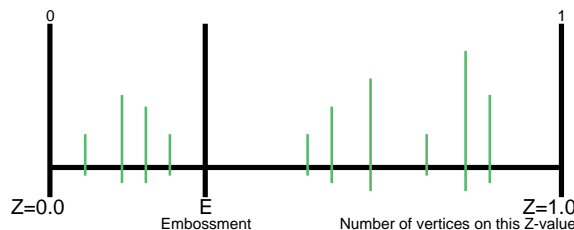
When selected, this lets you to adjust onscreen the settings of your 3D glasses and display card when playing games or watching 3D videos. These settings include **Eyes, Distance, Embossment, Background, Foreground, Blind, Brightness, Contrast, and Gamma**. See [IV. Software Reference | Advanced](#) for a description of the 3D glasses settings and [IV. Software Reference | Color](#) for a description of the display settings.

Use the UP or DOWN arrow keys on your keyboard to select a setting that you want to change or adjust and the PLUS or MINUS keys to move or drag the slider.

To restore the settings to their defaults, press the HOME key.

To close the onscreen display, press the END key.

## OSD Histogram Chart



The OSD Histogram Chart lets you determine at which Z range 3D objects are located and how they gather. For example, if this chart (simulated) was displayed on a car racing game, the vertices to the left of the E line could be the model of your car and to the right of the E line could be the road, houses, other cars or trees in front of your car.

So, with this information, you could

- Adjust Embossment by moving the E line.
- Adjust Foreground/Background, thus stretching the histogram to make objects more evenly distributed.

**NOTE:** Using the histogram chart requires games using Direct3D 6.0 or earlier.

## Known Issues on Specific Games

See the included support CD for the latest information (D3DVR.TXT in the WIN9XME folder).

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# IV. Software Reference

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# IV. Software Reference

## OpenGL

### VR Effect

#### Enable Stereoscopic Mode

When selected, this enables you to use the stereoscopic mode when running OpenGL 3D applications and games. This mode is available only with the ASUS Deluxe model or a Deluxe/TVR model—models with Video-In/TV-Out—or models with the ASUS VR-100 Optional Upgrade Kit.

#### Eyes

Distance between both eyes. Adjust this to bring objects into focus. Default: 0.

#### View Angle

The angle by which your two viewing directions intersect. Adjust this to add more depth to the scene. When set to a too high value, eye discomfort/fatigue may occur.

#### Embossment

Adjust this to add more to the illusion of objects being pulled or popping out of the screen. See **On Screen Display** later in this section for details. When set to a too high value, eye discomfort/fatigue may occur. To achieve a better stereoscopic visual quality, set **Embossment** in conjunction with **View Angle**.

### Mode

#### Line Interleave

Select for better compatibility with most monitors, particularly monitors with less specifications. Stereoscopic visual quality, however, will be poor because only half the number of vertical lines are generated with this mode.

#### Page Flipping

Select for the best stereoscopic visual quality. Page Flipping provides double vertical resolution compared with Line Interleave. Your monitor must be able to support the high frequency (at least 100Hz) necessary for this mode.

### Refresh Rate

To prevent eye discomfort and fatigue, high refresh rates are preferred. Some monitors, however, may not be able to support a high refresh rate. Make sure that your monitor supports a selected refresh rate; otherwise, your monitor may become unstable, for example, a blank screen may occur.

#### Disable Monitor Check

Lets you disable the specification check of your monitor.

**Note:** Choosing a resolution or refresh rate beyond the monitor specifications may damage your monitor.

### Scheme

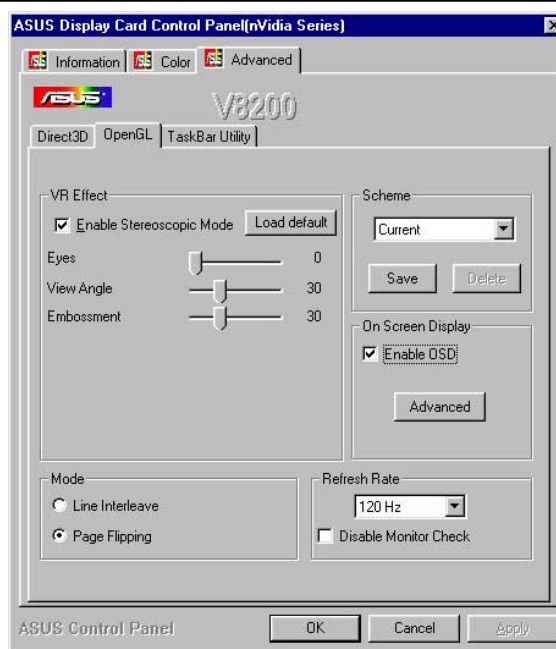
Scheme lists schemes that you can use to change the appearance of many screen elements simultaneously. You can use existing schemes, or create and save your own scheme by saving your current settings, or delete unwanted schemes. You may want to save a scheme that you created for some special situations, such as when you want to use the same settings when playing a certain game or a movie.

**IMPORTANT:** Before enabling OpenGL stereoscopic mode and using your stereoscopic or 3D glasses (ASUS VR-100G), make sure that you select a high resolution. The equivalent Stereo Mode resolution of a particular resolution is lower, thus:

**16 bits:** 2048x1536 → 1024x768 Stereo Mode

**32 bits:** 1280x960 → 640x480 Stereo Mode, 1280x1024 → 640x480 Stereo Mode, 1600x900 → 800x600 Stereo Mode, 1600x1200 → 800x600 Stereo Mode

**WARNING!** To prevent discomfort and eye fatigue when using your stereoscopic or 3D glasses, DO NOT try to use your 3D glasses for an extended period of time. Take frequent short breaks to give your muscles and eyes a chance to rest by taking off your 3D glasses and then looking up and focusing on distant objects.





# IV. Software Reference

## On Screen Display

### Enable OSD

When selected, this lets you open the D3D On Screen Display (you may use the defined **Hotkey**) and then adjust onscreen the settings of your 3D glasses and display card when playing games or watching 3D videos.

### Advanced

This lets you open the **Advanced** box.

#### Hotkey

This lets you assign hot keys to enable onscreen display or OSD. To use this function, select **Enable OSD**. You may want to change the default hot key (CTRL + ALT + O) when it conflicts with hot keys of certain games, video players, or Windows programs.

#### To change the default hot keys

1. With your mouse cursor in the **Hotkey** box, press the hot key combination of your choice (you can only define CTRL + ALT key combinations). Hot keys automatically include CTRL+ALT. Press any valid key (you cannot use ESC, ENTER, TAB, SPACEBAR, PRINT SCREEN, or BACKSPACE) you want to add to this combination. For example, to define the hot key combination CTRL+ALT+D, press D.

**NOTE:** The hot keys will be available only if you selected the **Enable OSD** check box.

## OSD Settings



Unreal Tournament™ is copyright © 1999 by Epic Games, Inc.

When selected, this lets you to adjust onscreen the settings of your 3D glasses and display card when playing games or watching 3D videos. These settings include **Eyes**, **View Angle**, **Embossment**, **Brightness**, **Contrast**, and **Gamma**. See **IV. Software Reference | Advanced** for a description of the 3D glasses settings and **IV. Software Reference | Color** for a description of the display settings.

Use the UP or DOWN arrow keys on your keyboard to select a setting that you want to change or adjust and the PLUS or MINUS keys to move or drag the slider.

To restore the settings to their defaults, press the HOME key.

To close the onscreen display, press the END key.

## Known Issues on Selected Games/Applications

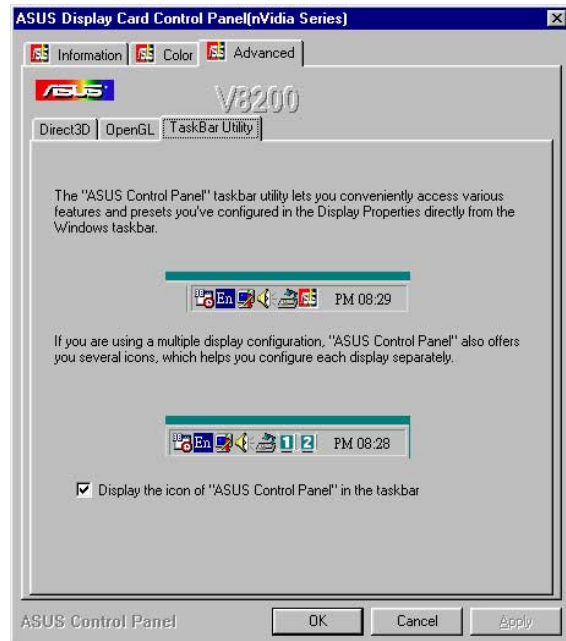
See the included support CD for the latest information (OPENGLVR.TXT in the WIN9XME folder).

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# IV. Software Reference

## *TaskBar Utility*

The TaskBar Utility lets you conveniently access various features and presets that you have configured in the Display Properties directly from the Windows taskbar.



# IV. Software Reference

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# IV. Software Reference

## Windows Display Properties

**Windows Display Properties** allows you to make monitor adjustments, such as position; color correction, such as brightness, contrast, and gamma; and additional GeForce3 properties settings.

To use **Windows Display Properties**, click or right-click the ASUS icon on the taskbar's status area to open the ASUS Control Panel and then click **Windows Display Properties**.

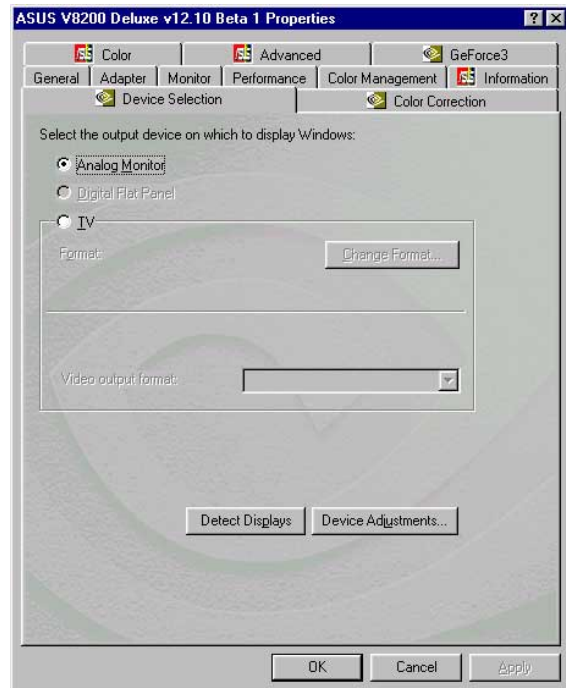
**NOTE:** Instead of clicking the ASUS Control Panel icon, you may right-click the Windows 98/2000 desktop, click **Properties**, and then click **Settings**. Under Windows 98/2000, click **Advanced** after clicking **Settings**. Click the appropriate tab (with the NVIDIA icon ) to change your display settings.

**TIP!** You can almost always get more information about a particular option by right-clicking it and then clicking **What's This?**

## Device Selection

Select the device/device(s) connected to your card (Analog Monitor, Digital Flat Panel, TV) or click **Detect Displays** to detect the connected device/device(s).

**WARNING!** Adjusting position or size is a highly dangerous operation. Selecting a value that is beyond your monitor's specification may damage it. **Press ESC to restore your original settings in case of problems.**



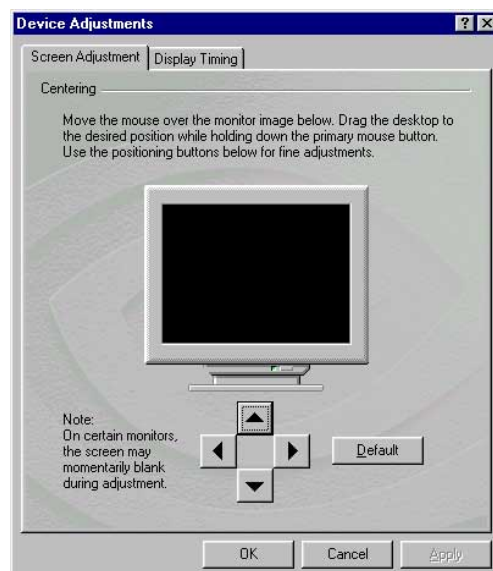
## Analog Monitor

Click **Device Adjustments** to make changes to the position of and proper timing mode for your monitor.

### Screen Adjustment

Follow the onscreen instructions to adjust the position of your monitor.

For fine adjustments, use the arrows.



# IV. Software Reference

## Display Timing

Select the proper timing mode for your monitor.

### Auto-Detect (let Windows determine the proper mode)

This option allows Windows to receive the proper timing information directly from the monitor itself.

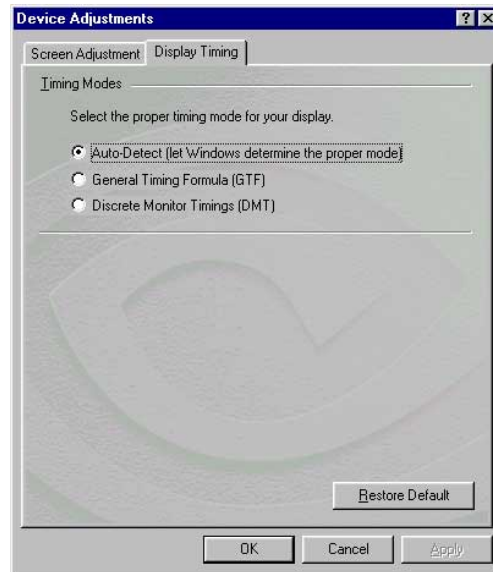
**NOTE:** Some older monitors may not support this feature.

### General Timing Formula (GTF)

GTF is a standard used by most new hardware.

### Discrete Monitor Timings (DMT)

DMT is an older standard still in use on some hardware. Select this option if your hardware requires DMT.



## Digital Flat Panel

**NOTE:** This is not available if your card is a pure model.

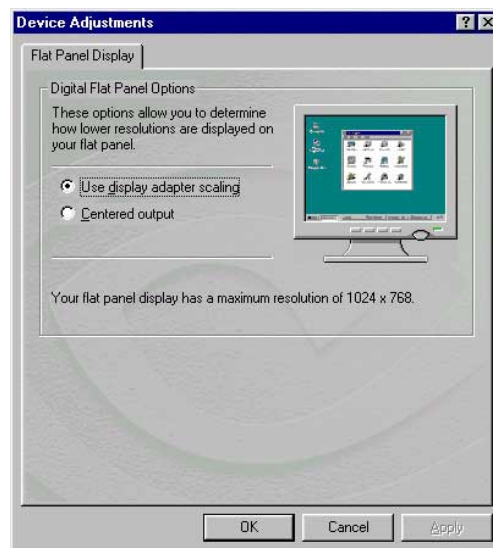
The following options let you determine the placement of the image on your flat panel display when running at resolutions lower than the maximum resolution supported.

### Use display adapter scaling

Lets your adapter do the scaling (default)

### Centered output

Lets you center the image on the your flat panel and does not do any scaling.



# IV. Software Reference

## TV

**NOTE:** This is not available if your card is a pure model (cards without a TV Out connector).

### Change Format

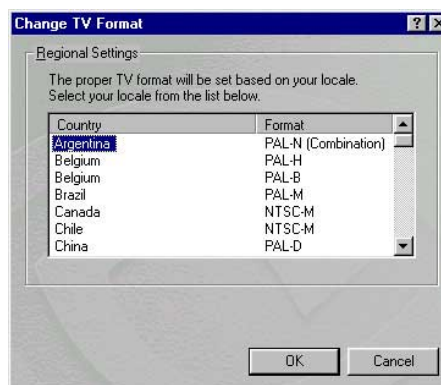
Opens a window where you can specify a particular TV output format.



### Change TV Format

This list allows you to select the TV output format based on the country where you live.

**NOTE:** If your country is not in the list, you should select the country closest to your location.



### Video output format

Lets you specify the type of output signal sent to the TV.

If you have an appropriate connector cable connected, S-Video out will generally provide a higher quality output than Composite video out. If you are not sure which type of signal you should specify, choose the **Auto-select** setting.

## IV. Software Reference

### Color Correction

**Color Correction** lets you make color adjustments, such as brightness, contrast, and gamma values for each or all of the RGB colors of your desktop.

#### *Digital Vibrance*

**Digital Vibrance** lets you control the color separation and intensity of your Windows desktop.

**NOTE:** Increasing the levels may result in bold, dynamic visuals with sharp and balanced colors.

#### *Active Color Channel*

**Active Color Channel** lets you adjust all channels at once (**All channels**) or individual channels (**Red, Green, or Blue**).



#### *Brightness / Contrast / Gamma*

**Brightness / Contrast / Gamma** sliders let you calibrate the brightness, contrast, and gamma output of your display card. Changes to your color settings are shown immediately on your monitor.

Automatically apply these settings at startup

Selecting this option will automatically restore the color adjustments you have made when Windows is restarted.

**NOTE:** If your computer is running on a network, the color will be adjusted after you have logged on to Windows.

#### *Custom color settings*

**Custom color settings** lists settings you have saved. These settings can be used to change the appearance of many screen elements simultaneously. You can create and save your own setting by saving your current settings, or delete unwanted settings. You may want to save a setting that you created for some special situations.

# IV. Software Reference

## GeForce3

**GeForce3** displays information about your graphics card, computer system, and driver versions; lets you access additional features of your card; and go to the Internet (when properly connected) for driver and product updates and news.

### Additional Properties

#### 3D Antialiasing Settings

Use these controls to select the degree of antialiasing to be used in Direct3D and OpenGL applications. Antialiasing is a technique used to minimize rendering artifacts, such as the “Staircase” or jagged effect seen along the edges of 3D objects.

You can either allow 3D applications that support antialiasing to control optimally the antialiasing mode or manually select the antialiasing mode.

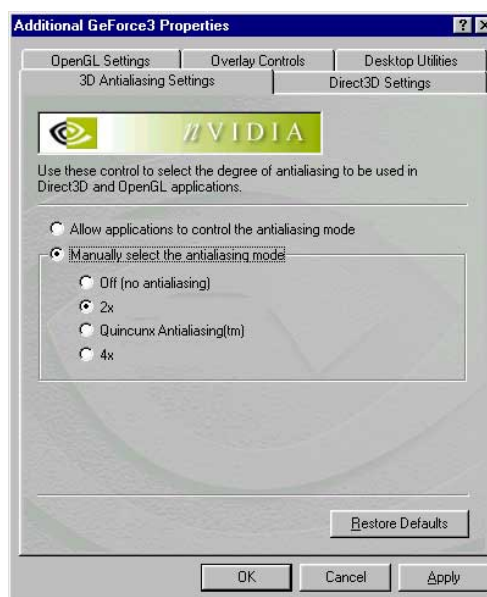
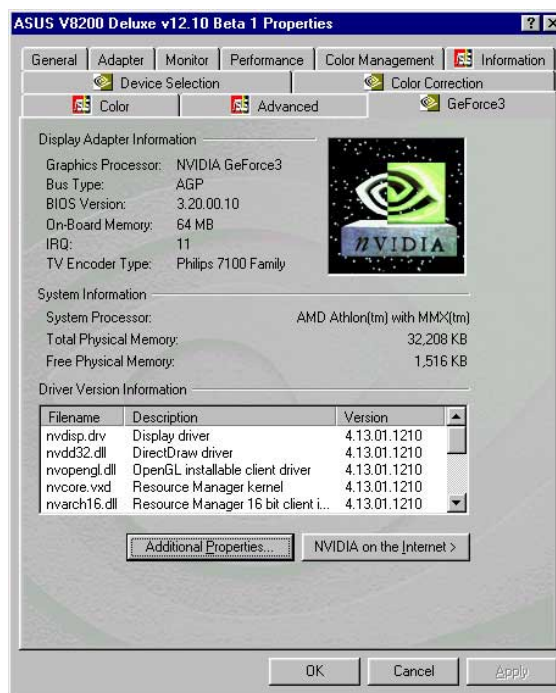
#### Manually select the antialiasing mode

*Off (no antialiasing):* Disables antialiasing in 3D applications. Select this if you require maximum performance in your applications.

*2x:* Enables antialiasing using the 2x mode. Select this for improved image quality and high performance in 3D applications.

*Quincunx Antialiasing(tm):* Enables a patented antialiasing technique available in the GeForce3 GPU series. *Quincunx Antialiasing™* offers the quality of the slower 4x AA mode at very near the performance of the faster 2x AA mode.

*4x:* Enables the antialiasing using the 4x mode. Select this for the highest possible image quality at the expense of some performance drain in 3D applications.



IV. SW Reference  
GeForce3



# IV. Software Reference

## Direct3D Settings

### Performance and Compatibility Options

#### Enable fog table emulation

Some old games do not correctly query the D3D hardware capabilities and expect table fog support. Choosing this option will ensure that such games will run properly.

#### Adjust Z-buffer depth to rendering depth if unequal

This option forces the hardware to automatically adjust the depth of its Z-buffer to the depth that the application requests. Normally, you will want to keep this option enabled, unless your work absolutely requires a specific Z-buffer depth.

#### Enable alternate depth buffering technique

This option lets the hardware use a different mechanism for depth buffering in 16-bit applications. Enabling this setting can produce higher quality rendering of 3D images.

#### Display logo when running Direct3D applications

This option lets you display the Nvidia logo in the lower corner of the screen while running Direct3D applications.

### Mipmapping

#### Mipmap detail level

This option lets you adjust the Level of Detail (LOD) bias for mipmaps. A lower bias will provide better image quality while a higher bias will increase the application performance. You can choose from five preset bias levels.

#### PCI Texture Memory Size

**NOTE:** This setting applies only to PCI display adapters or to AGP display adapters running in PCI compatibility mode.

This option lets you set the amount of system memory for texture storage. Clicking the up arrow increases the memory size while clicking the down arrow decreases the size of system memory for textures. The maximum amount of system memory for texture storage depends on the physical memory installed on your system.

#### Custom Direct3D settings

This option lets you create or delete custom settings or "tweaks" you have saved.

### More Direct3D

#### Texel Alignment

Changing these values will change where the texel origin is defined. The default values conform to the Direct3D specifications.

Some software may expect the texel origin to be defined elsewhere. The image quality of such applications will improve if the texel origin is redefined. Dragging the slider to the left positions the texel origin toward the upper left corner and to the right positions it toward the center (range: 0 to 7, default: 3).





# IV. Software Reference

## OpenGL Settings

### Performance and Compatibility Options

#### Enable buffer region extension

This option allows the drivers to use the OpenGL extension `GL_KTX_buffer_region`.

#### Allow the dual planes extension to use local video memory

This option allows the use of local video memory when the `GL_KTX_buffer_region` extension is enabled.

#### Use fast linear-mipmap-linear filtering

This option allows increased application performance at the expense of some image quality loss. In many cases, the loss of image quality may not be noticeable.

#### Enable anisotropic filtering

This option allows OpenGL to use anisotropic filtering for improved image quality.

#### Disable support for enhanced CPU instruction sets

This option disables driver support for enhanced 3D instruction sets by certain CPUs.

#### Default color depth for textures

**Default color depth for textures** determines whether textures of a specific color depth should be used by default in OpenGL applications. Options are **Use desktop color depth** (default), **Always use 16 bpp**, and **Always use 32 bpp**.

#### Buffer flipping mode

**Buffer flipping mode** determines the buffer flipping mode for full-screen OpenGL applications. Options are **Auto-select** (default), **Use block transfer**, and **Use page flip**.

#### Vertical sync

**Vertical sync** lets you specify how vertical sync is handled in OpenGL. Options are **Always off**, **Off by default**, **On by default** (default).

#### Use up to x MB of system memory for textures in PCI mode

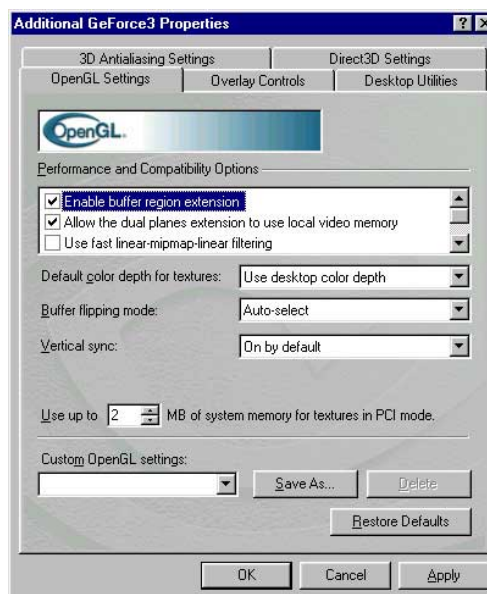
**Use up to x MB of system memory for textures in PCI mode** lets you set the amount of system memory for texture storage.

**NOTE:** This setting applies only to PCI display adapters or to AGP display adapters running in PCI compatibility mode.

Clicking the up arrow increases the memory size while clicking the down arrow decreases the size of system memory for textures. The maximum amount of system memory for texture storage depends on the physical memory installed on your system.

#### Custom OpenGL settings

This option lets you create or delete custom settings or “tweaks” you have saved.



# IV. Software Reference

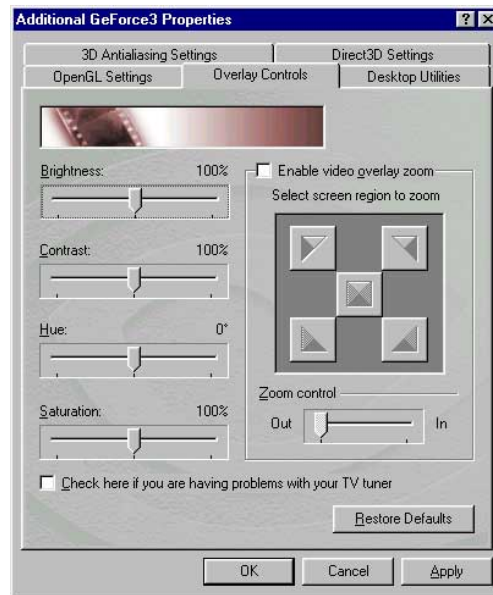
## Overlay Controls

### Brightness / Contrast / Hue / Saturation

**Brightness / Contrast / Hue / Saturation** sliders let you calibrate the brightness, contrast, hue, and saturation output of your display card. Use this to adjust the quality of video or DVD playback on your monitor.

You can independently control the brightness, contrast, hue and saturation to achieve optimal quality when playing back videos or DVD movies on your computer.

Dragging a slider to the left decreases the level and to the right increases it. The number at the right of each slider displays the brightness (value range: 0% to 200%, default: 100%), contrast (0 to 200%, default: 100%), hue (-180° to 180°, default: 0), or saturation value (0% to 200%, default: 100%).



### Enable video overlay zoom

This option enables the zoom controls to allow you to zoom in on a specific area of the video output screen.

### Select screen region to zoom

This option lets you select the region on the video playback to zoom in or out.

### Zoom control

This option lets you zoom in or out on the selected portion of the video playback screen.

### Check here if you are having problems with your TV tuner

This option, when selected, forces the overlay software to use busmastering. It is recommended that you leave this option cleared unless you experience problems with video playback, such as image corruption or no video image at all.

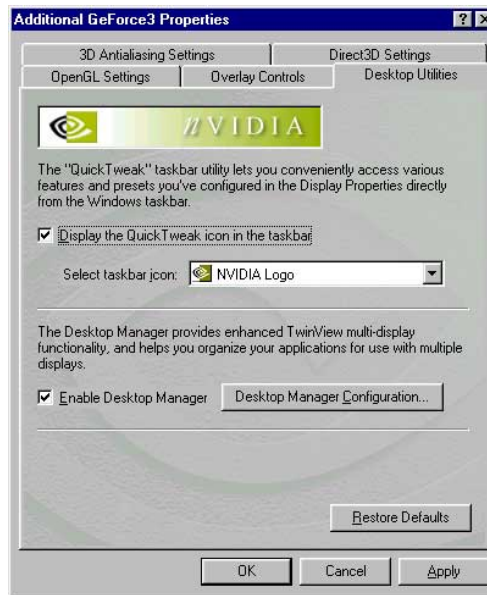
**NOTE:** You can only access **Overlay Controls** while you are playing back videos (for example, \*.AVI files) or DVD movies on your computer.

# IV. Software Reference

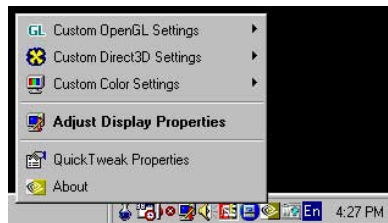
## Desktop Utilities

### Display the Quick Tweak icon in the taskbar

This option adds the NVIDIA Quick Tweak icon (user configurable — click the **Select taskbar icon** list box for options) to the Windows taskbar.



Clicking the icon on the taskbar lets you apply any of the custom Direct3D, OpenGL or color settings “on the fly” from a convenient popup menu. The menu also contains items for restoring default settings and accessing the Display Properties dialog.



### Enable Desktop Manager

Desktop Manager provides enhanced TwinView multi-display functionality and helps you organize your applications for use with multiple displays.

When enabled, the Desktop Manager allows enhanced functionality, such as window management hotkeys, dialog re-centering, and zooming, when using TwinView multi-monitor configurations. Desktop Manager also adds support for multiple desktops to help you better organize your application workspace. It also lets you run one or more programs on one or both monitors or desktops. Among others, it also allows you to undertake program-management features, such as restoring application windows to their last-used position.

## Desktop Manager Configuration

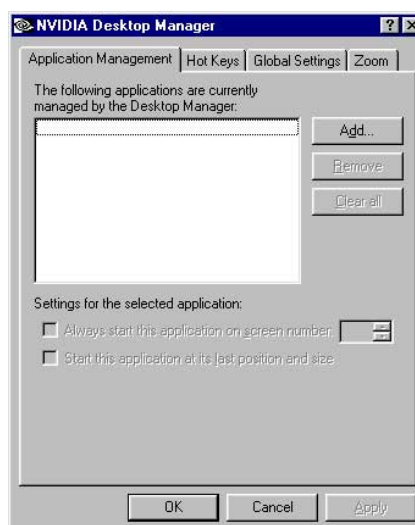
To set **Desktop Manager** properties, click the **Desktop Manager Configuration** button. The NVIDIA Desktop Manager dialog box opens.

### Application Management

**Application Management** lets you add a program to Display Manager.

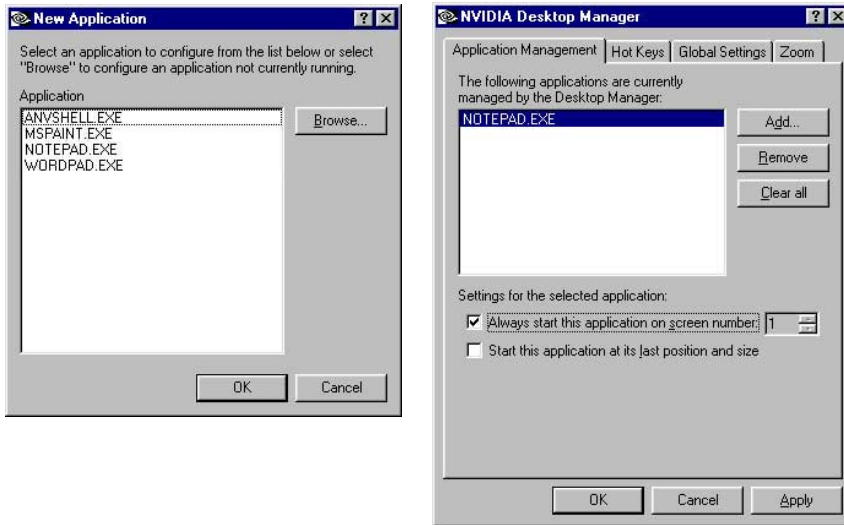
1. Click the **Add** button on the **Application Management** tab.

**IMPORTANT!** Make sure that the programs you want to run using Desktop Manager are already open.



# IV. Software Reference

- Your open programs will appear in the **New Application** box.
  - Select the program you want to add, then click **OK**. The program appears in the **Application Management** window.
- Repeat this step for each program that you want to add to Display Manager.



In the **Application Management** tab, you can set a variety of **Display Manager** settings.

**Always start this application on screen number** lets you select the display or monitor to use when starting the program.

**Start this application at its last position and size** lets you start the program at the last position and size it was when you closed it.

To display the Desktop Manager menu from any program that has been added in Display Manager, right-click the title bar of the open program. (The title bar is the horizontal bar at the top of a window that shows the name of the document or program.)



## Hot Keys

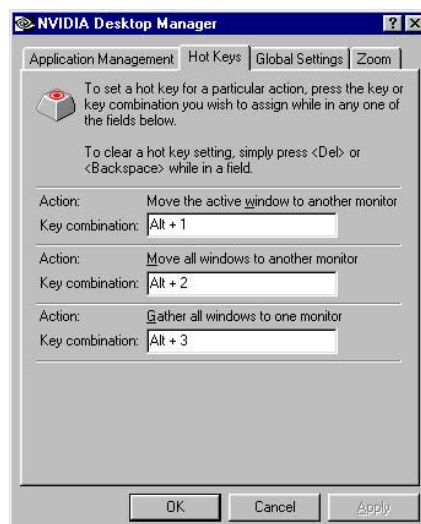
**Hot Keys** lets you enter different key combinations and assign them to actions such as that involve moving active windows to another monitor or desktop or moving windows to a separate monitor.

The default key combinations for each action are

**Move the active window to another monitor:** ALT + 1

**Move all windows to another monitor:** ALT + 2

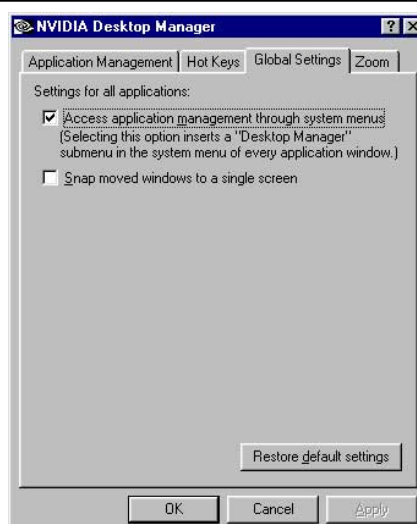
**Gather all windows to one monitor:** ALT + 3



# IV. Software Reference

## Global Settings

**Global Settings** lets you specify settings that will apply to all applications running under Display Manager.



## Zoom

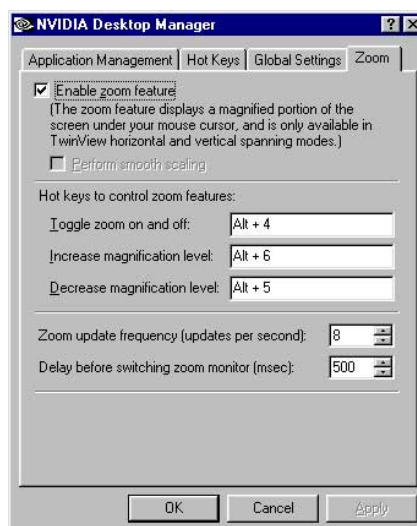
**Zoom** lets you enable a magnified or “zoomed” view of a region of the screen under and around the mouse cursor. The zoomed view appears on the monitor on which the mouse is *not* pointing.

**Enable zoom feature** lets turn on or off the **zoom** feature (default: selected or enabled).

**Hot keys to control zoom features** lets you specify hot key combinations other than the defaults. Press any valid key, including function keys, (you cannot use ESC, ENTER, TAB, SPACEBAR, PRINT SCREEN, or BACKSPACE) you want to add.

**Zoom update frequency (updates per second)** lets you set the update or “refresh” frequency of the magnified view in number of times per seconds (*default: 8*; can be set from 1 to 100 times per second). Normally, the magnified view is updated whenever the mouse cursor is moved and is updated at a fixed interval when the mouse cursor is still.

**Delay before switching zoom monitor (msec)** lets you set the time delay in milliseconds (*default: 500*; can be set from 0 to 1000 milliseconds) before the zoomed view switches monitors when you move your mouse cursor from one monitor to the other. Set to 0 for instant switching of the zoom window.



# IV. Software Reference

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## IV. Software Reference

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### Using the Utilities



#### ASUS Live Utility

##### NOTES

1. ASUS Live Utility can only be used with models with a Video Decoder and monitors or monitor drivers that are designed for I2C bus control.
2. ASUS Live Utility supports Windows 9x/ME, Windows NT 4.0, and Windows 2000. For Windows NT/2000, however, the ASUS capture driver for NT/2000 must be installed first before opening ASUS Live Video (*see **Install Video for Windows Capture Driver** earlier in **III. Software Setup***).

ASUS Live Utility can be used to:

1. View images using your monitor as screen from traditional consumer devices, such as videocassette players, camcorders, digital cameras, and laser disc players through the onboard RCA or SVHS VIDEO-IN connectors.
2. Capture live motion video up to 30 frames/second (minimum system requirement: Pentium II/266).

**NOTE:** You should already have installed DirectX 7 or later to use ASUS Live (*see **III. Software Setup | Install DirectX***)

#### *Running ASUS Live Video*

To run the utility, click **Start** and point to **Programs** and then **ASUS Live** and then click **ASUS Live**.

You may also run ASUS Live by clicking or right-clicking the ASUS Control Panel icon (*see **IV. Software Reference | ASUS Control Panel***) on the taskbar's status area to display the ASUS Control Panel, pointing to **ASUS Live Video**, and then clicking it.

#### *Uninstalling ASUS Live Utility*

To uninstall the software, click **Start** and point to **Programs** and then **ASUS Live** and then click **Uninstall**. You may also uninstall the software using the **Add/Remove Programs Properties** dialog box at the **Windows Setup** tab. *See* Windows online help for more information on removing a Windows component.

# IV. Software Reference

## ASUS Live Control Panel

### Live Mode

(Click **Capture** to switch to Capture Mode)

Click the preferred video connection (Composite, S-Video, TV Tuner) to change a current connection.

Click here to open the ASUS Live Pre-Recording Setting dialog box.

Shows/hides the **Video Source Option (F9)** (see next page)



Keep ASUS Live Always On Top

Zoom In/Out ASUS Live Control Panel

Minimize ASUS Live Control Panel to taskbar

Exit

Click here to change the video standard (NTSC-M, NTSC-N, NTSC-4.43, PAL-BGHI, PAL-4.43, PAL-M, PAL-N or SECAM)

Click here to change the window size for viewing [160 x 120, 176 x 120, 320 x 240, 352 x 240 (default), 640 x 480, 704 x 480 or Full Screen].

Opens the **About ASUS Live** (ASUS Live and Capture Driver version number) window

Opens a drop-down box to let you set **Video Format, Video Source, Tuner Setting, and Tuner Edit**

### Capture Mode

(Click **Live** to switch to Live Mode)

Click the preferred video connection (Composite, S-Video, TV Tuner) to change a current connection.

Click here to open the ASUS Live Pre-Recording Setting dialog box.

Click an image to view it with the associated image viewer or application (a pop-up window opens to show the path and filename of the selected image). Right-click an image to **View, Save As,** and **Delete** that image.



Click here to change the video standard (NTSC-M, NTSC-N, NTSC-4.43, PAL-BGHI, PAL-4.43, PAL-M, PAL-N or SECAM)

Opens the ASUS Video Format dialog box to change the capture **Image Dimensions** [88 x 60, 176 x 120, 352 x 240 (default), 704 x 240, 704 x 480, 160 x 120, 320 x 240, 640 x 240, 640 x 480 or Full Screen], **Image Format** [8 bit Palettized, 16 bit RGB, 24 bit RGB, UYVY, and ASUS Video 2.0 (default)], and/or **ASV2 Settings (Quality Level)** [0 - Best Compression, 1, 2, 3 (default), 4, 5 - Normal Quality, 6, 7, 8, 9 - Best Quality].

Opens a drop-down box to let you set capture format size, video compression, pre-recording settings, among others

# IV. Software Reference

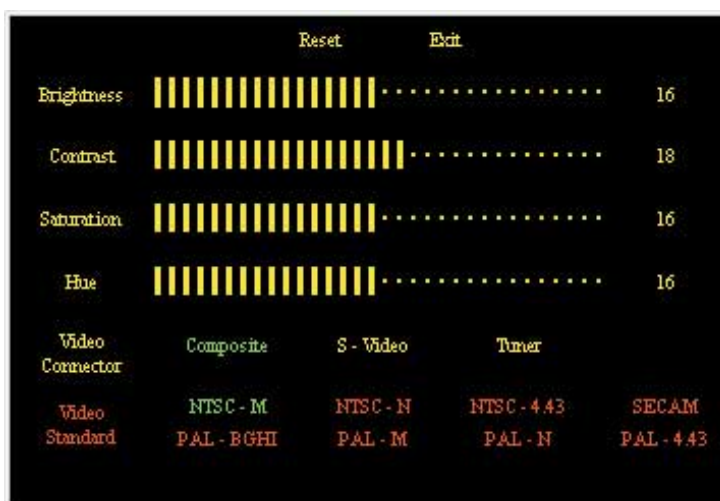
## Always On Top



The **Always On Top** option is provided for users who may wish to continue watching VCD/DVD/TV programs or want to have the display screen visible while doing other tasks, such as when downloading files from the Internet or word processing. To keep your display screen always on top of other programs, right-click the display screen and then click **Always On Top**. Position the screen where it will not interfere with your other tasks.

## Video Source Option

When first using ASUS Live, you must set up the video source. By clicking the **Video Source Option (F9)** button (*hotkey: F9*) on the ASUS Live Control Panel, you can show or hide the video source setup screen.



Use your mouse/pointing device or the Up or Down Buttons on the ASUS Live Control Panel or the UP and DOWN arrow keys on your keyboard to select Video Connector and then the Left and Right Buttons or the LEFT and RIGHT arrow keys to set your video connection (*Composite, S-Video, or Tuner*) or video standard [*NTSC-M, NTSC-N (not supported under Windows 2000/NT 4.0), NTSC-4.43, PAL-BGHI, PAL-M, PAL-N, PAL-4.43 or SECAM*]. Click or select **Reset** to set the settings back to its default. Click or select **Exit** to close the Video Source Option window.

# IV. Software Reference

## NOTES

1. Users of the PAL D/K models should select PAL-BGHI for the Video Standard.
2. NTSC-N is not supported under Windows 2000/NT 4.0.

If desired, you may adjust the Brightness, Contrast, Saturation, and Hue of your display by using the video source setup screen. Use the Up or Down Buttons on the ASUS Live Control Panel or the UP and DOWN arrow keys on your keyboard to select the desired option and then the Left and Right Buttons or the LEFT and RIGHT arrow keys to make the desired adjustments.

Click again the **Video Source Option (F9)** button on the ASUS Live Control Panel to exit from the video source option screen.

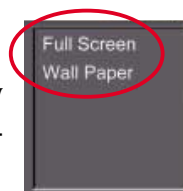
## ASUS Live Video Modes

ASUS Live Mode has two execution modes, namely, **Live Mode** and **Capture Mode**.

### Live Mode

Live Mode lets you view live video. Under this mode, you may adjust the display screen size with your mouse, or view in full-screen mode, or set live video as wallpaper to display it.

To change video source settings, click the **Setup** button on the ASUS Live Control Panel.



## NOTES

1. Currently, Live Mode does not work under Windows NT 4.0. Live Mode requires at least Direct Draw 6, which Windows NT 4.0 does not support.
2. Before using the **Wall Paper** option, make sure that the **View as Web Page** option of the Active Desktop setting is not selected (*see Start – Settings – Active Desktop – View as Web Page*).

### Capture Mode

Capture Mode lets you capture and store images into your computer. It has three capture options: **SnapShot**, **Frame Recording**, and **Video Recording**. Video Recording adds an auto-timer recording function that allows you to schedule your video recording (*see Auto Video Recording Setting* later in this section).

Captured images are shown on the Preview Files window of the ASUS Live Control Panel. Click an image to view it with the associated image viewer or application (a pop-up window opens to show the path and filename of the selected image). Right-click an image to **View**, **Save As**, and **Delete** that image.



To change video capture settings, click the **Setup** button on the ASUS Live Control Panel.





# IV. Software Reference

## Video Capture

**IMPORTANT:** It is the intent of ASUS that this product be used in full compliance with the copyright laws of your respective and other countries and that prior permission be obtained from copyright owners whenever necessary.

### Windows 98

When you install the Windows 98 Driver of your ASUS graphics card (only models with the VIDEO-IN connector), the video capture driver will automatically be installed on your system. This video capture driver follows Microsoft Video for Windows standard and can open **up to a capture window size of 704 x 480**. It can be used with some applications that use video capture as an option, such as video conferencing, net meeting, or digital video authoring applications.

**IMPORTANT:** You must enable the DMA transfer mode of your hard disk (EIDE HD) to get the maximum data transfer capability (**704 x 480, 30 frames/second**) during the video capture process. Otherwise, your system may become unstable.

### Windows 2000/NT 4.0

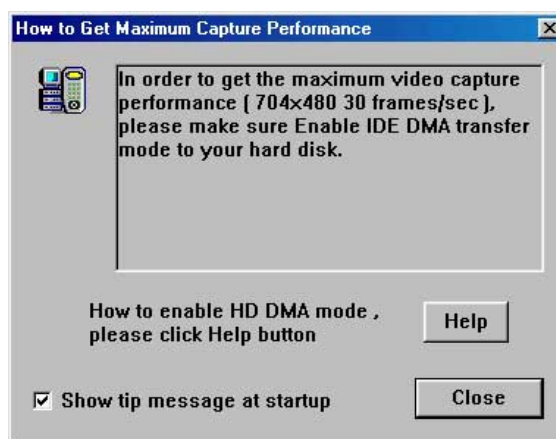
The video capture driver for Windows 2000/NT 4.0 is not automatically installed when you install the display drivers of your ASUS graphics card.

To install, insert the CD installation disc into your CD-ROM drive, click **Drivers**, and then click **Install Video for Windows Capture Driver** (see **III. Software Setup | Install Video for Windows Capture Driver**).

### Enabling DMA Transfer Mode

**NOTE:** The **How to Get Maximum Capture Performance** dialog box will tell you how to enable your hard disk's DMA transfer mode to get the best capture performance. Simply follow the on-screen instructions to enable DMA mode. Otherwise, do the following:

1. Click **Start**, point to **Settings**, and then click **Control Panel**.
2. Double-click the **System** icon. The **System Properties** dialog box appears.
3. Click the **Device Manager** tab and then click the plus sign next to **Disk drives**, and then double-click your hard disk. The hard disk's **Properties** box appears.
4. Click the **Settings** tab and then select the **DMA** check box under **Options**.



# IV. Software Reference

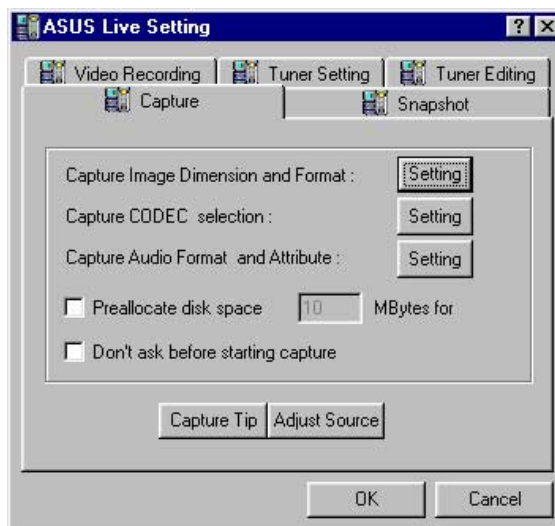
## Capturing Images

You must be in capture mode to capture images. To do this, click the **Capture Mode** button on the ASUS Main Panel.

**NOTE:** ASUS Live will automatically detect and warn you if the capture driver installed in your system is not compatible with ASUS Live.

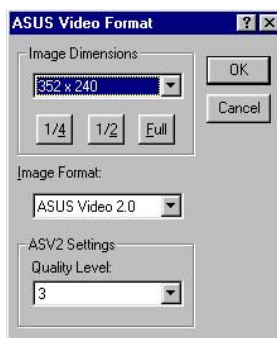
### Video/Capture Setting

1. Click **Setup** and point to and then click **Capture Basic Setting** to adjust the basic video capture settings, such as **Capture Image Dimension and Format**, **Capture CODEC selection**, and **Capture Audio Format and Attribute**.

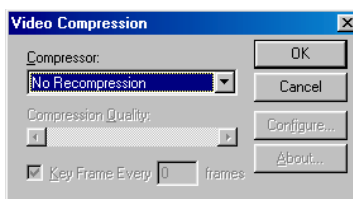


Under **Capture Image Dimension and Format**, select the **Image Dimensions**, **Image Format**, and **ASV2 Settings** of your choice.

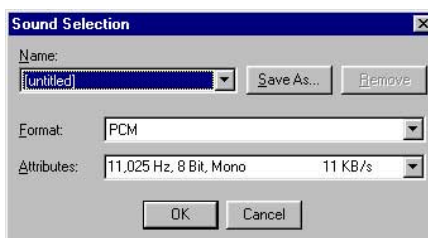
**NOTE:** Windows 2000/NT 4.0 supports only the UYVY image format.



Under **Capture CODEC selection**, select the video compression of your choice for your captures.



Under **Capture Audio Format and Attribute**, select the audio **Format** and audio **Attributes** setting of your choice. This setting depends on whether you have audio set on your system.





## IV. Software Reference

**Preallocate disk space:** If you have limited space on your hard disk, you may want to limit the capture file size to a certain size. To do this, click **Preallocate disk space** and enter the desired maximum file size.

**Don't ask before starting capture:** This lets you start capture without the dialog box prompt.

You are now ready to capture video images.

**Capture Tip:** See **Enabling DMA Transfer Mode**

**Adjust Source:** This lets you select the video connection and video standard to use in the capture. It also lets you adjust the *Brightness*, *Contrast*, *Saturation*, and *Hue* of your images.

### Snapshot Setting

1. Click **Setup** and point to and then click **Video Snapshot** to select your **Capture Picture Format** (default: 24 bit), **Image Setting** and other settings.

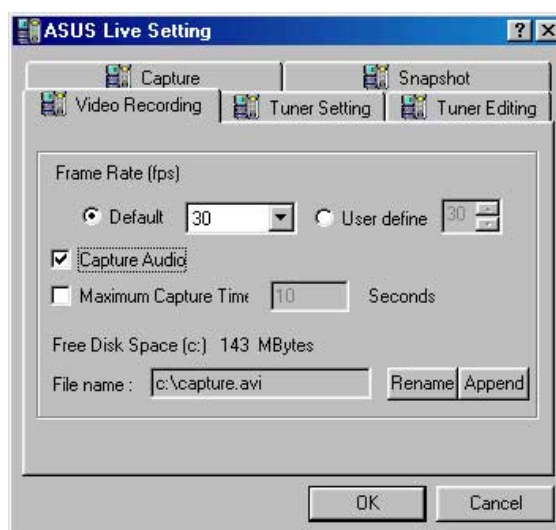
Under **Image Setting**, you may set the desired **Image File name** and path (default: C:\CAPTURE.BMP) and for the filename to be consecutively numbered (**Store image use consecutive numbered filename**).



You are now ready to capture video images.

### Manual Video Recording Setting

1. Click **Setup** and point to and then click **Manual Recording** to select the video recording settings, such as the **Frame Rate (fps)** (default: 30), **Maximum Capture Time** (default: 10 seconds) and **File name** and path (default: C:\CAPTURE.AVI).

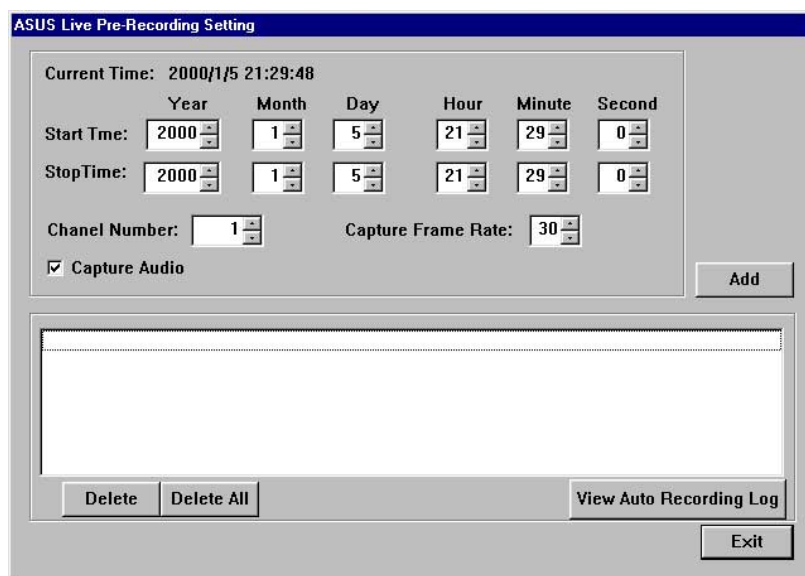


You are now ready to capture video images.

# IV. Software Reference

## Auto Video Recording Setting

1. Click **Setup** and point to and then click **Auto Timer Recording** to select the live pre-recording settings.



These settings include the **Start Time** (Year | Month | Day | Hour | Minute | Second), **Stop Time** (Year | Month | Day | Hour | Minute | Second), **Channel Number**, **Capture Frame Rate**, and options to **Add Audio** to the recording, **View Auto Recording Log**, and to **Delete** one or **Delete All** the pre-recording settings.

2. Click **Add** to add your pre-recording setting/s.

The video recording will start at the designated date and time.

**NOTE:** The video recording settings assume that you have a video device connected to your ASUS graphics card and that the device is turned on and running.

## Snapshot

**Snapshot** (*hotkey*: F5) lets you capture video stream data as single images and then show these images on your desktop almost simultaneously through the default image viewer. It supports any plug-in picture viewer/image processing program to view the captured images (*see ASUS Live Control Panel* earlier in this section).

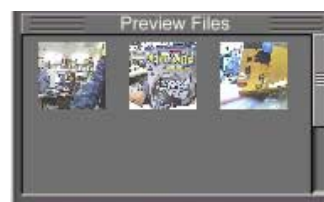
To begin capturing, do the following:

1. Click **Snapshot** on the ASUS Live Control Panel or press the F5 key to capture the desired image on ASUS Live Video's display screen.

The screen will freeze momentarily and the captured image (saved as a BMP file, using consecutive numbers) will be previewed in the **Preview Files** window.

You may click an image to view that captured image.

2. Repeat Step 1 as necessary.



## IV. Software Reference

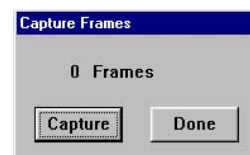
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### Frame Recording

**Frame Recording** (*hotkey: F6*) lets you capture video stream data as consecutive images and then show these images on your desktop through your default movie player. **Frame Recording** is useful in animation.

To begin capturing, do the following:

1. Click **Frame Recording** on the ASUS Live Control Panel or press the F6 key to open the **Capture Frames** box.
2. Click **Capture** to begin capturing the desired frame or frames on ASUS Live Video's display screen and then click **Done** when the desired end frame is reached. The initial frame of the captured video (saved as an AVI file) will immediately be displayed on your movie player.



### Video Recording

**Video Recording** (*hotkey: F7*) lets you capture video stream data continuously and then show these images on your desktop through your default movie player.

To begin capturing, do the following:

1. Click **Video Recording** on the ASUS Live Control Panel or press the F7 key.
2. Follow the on-screen instructions to begin and then stop video recording.



### NOTES

1. **Windows 2000/NT4.0:** The capture performance quality under Windows 2000/NT 4.0 is not as good as that under Windows 98.
2. **Windows NT 4.0:** To run ASUS Live Video, Windows NT 4.0 Service Pack 3 or later must be installed on your computer. You may download service packs at <http://www.microsoft.com/networkstation/downloads>.
3. **Windows 2000/NT 4.0:** To enhance capture performance, select **UYVY** as the capture format size and **ASUS ASV2** as capture CODEC.

# IV. Software Reference

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# IV. Software Reference

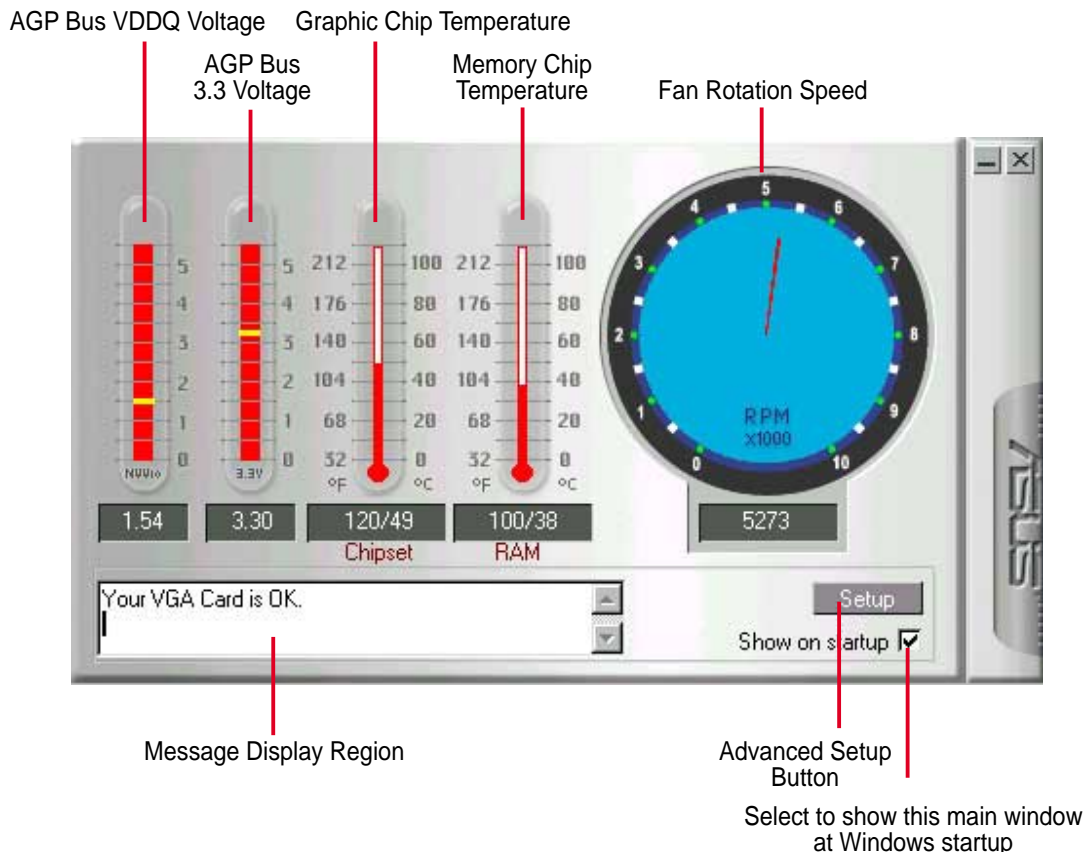


## ASUS SmartDoctor

ASUS SmartDoctor is designed to satisfy two major goals. One is to monitor the graphic chip status, alerting users about abnormal events, such as fan malfunction or chip overheat. The other, as the name “SmartDoctor” implies, is to “cool” down the graphic chip smartly when it is not necessary for it to be kept running at full speed.

### Functions

- Monitors graphic chip temperature, memory chip temperature, fan speed and voltage.
- Notifies users about irregular hardware events, such as temperature overheat, fan malfunction, and out-of-safe-range voltage.
- Forcibly cools down the graphic chip when the graphic chip’s temperature is over an acceptable temperature, to protect the graphic chip from overheat damage.
- Cools down the graphic chip’s temperature when it is idle, and restores it to its maximum capability once needed, thus smartly extending the graphic chip’s lifetime.
- Cools down the CPU’s temperature (for Windows 95/98/98 Second Edition only) to lengthen CPU lifetime.



IV. SW Reference  
ASUS SmartDoctor

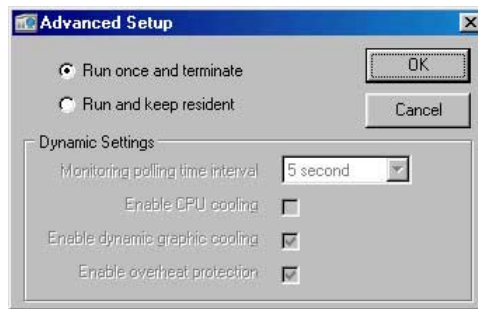
**NOTE:** AGP bus VDDQ Voltage and AGP bus 3.3 Voltage should be supplied steadily by your motherboard, otherwise, your system will crash.

# IV. Software Reference

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## Advanced Setup

When you click the **Setup** button, the **Advanced Setup** dialog box appears.



The default setting of SmartDoctor is **Run once and terminate**, which means that SmartDoctor will run every time Windows starts and checks the graphic card's status.

If your graphics card is working properly, SmartDoctor will just exit or terminate in 5 seconds.

If you want SmartDoctor to continue running in the background and to monitor your graphic card's status, select **Run and keep resident**.

**Dynamic Settings** will become available when you select **Run and keep resident**.

- **Monitoring polling time interval** lets you specify the time intervals that SmartDoctor will take to check the graphic chip. The default setting is 5 seconds. You can choose a longer time interval value. SmartDoctor, however, will be less sensitive to graphic chip condition changes.
- **Enable CPU cooling** allows you to enable or disable the CPU cooling option. Enabling CPU cooling option will cool down the CPU's temperature when SmartDoctor detects that CPU is idle. The CPU's temperature will then drop.

**NOTE:** If you have already installed any CPU cooling software in your system, you should just choose only one. Running more than one CPU cooling software at the same time is redundant.

After CPU cooling is enabled, and when you run **System Monitor** in *Programs–Accessories–System Tools* to monitor CPU usage, you will find that CPU usage has reached its maximum, that is, 100%. Do not be alarmed—this is normal.

- **Enable dynamic graphic cooling** allows you to enable or disable the dynamic graphic cooling option. Enabling the graphic cooling option will cool down the graphic chip's temperature when SmartDoctor detects that the graphic chip is idle.



## IV. Software Reference

- **Enable overheat protection** lets you forcibly cool down the graphic chip when temperature is over the tolerable range or value.

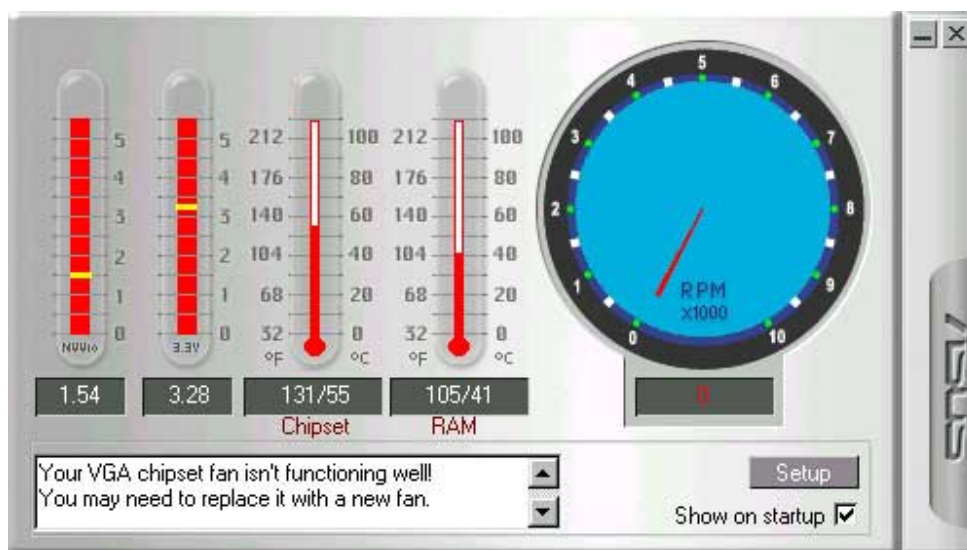
When you select **Run and keep resident** and then click **OK**, a dialog box appears to warn you of a possible graphic performance drop. This performance penalty is very slight and almost undetectable even under rigorous examination by benchmark programs.



Press **OK** to set your modifications or **Cancel** to retain the original settings

### Abnormal Events

When SmartDoctor senses that something is wrong with your card's graphic chip, the message display region will display a detailed description of the error or trouble. The component in question will also have a flashing red value. If you enabled overheat protection in **Advanced Setup** dialog, SmartDoctor will cool down the graphic chip in time to protect it from possible overheat damage.



# IV. Software Reference

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## IV. Software Reference



### ASUS Tweak Utility

**WARNING!** Use the ASUS Tweak Utility with extreme caution and only if you are well acquainted with your display card. Using this inappropriately may damage your card, its components, and your system.

To run the ASUS Tweak Utility, click **Start** and point to **Programs, Asus, Tweaking Utilities**, and then click **Tweak**.

#### Timing Adjustment

**Timing Adjustment** lets you adjust the working frequency of the graphic engine and video memory.

#### *Use tweak settings on next startup*

Selecting this allows you to use your settings when Windows starts.

#### Graphics Speed

##### Engine

Lets you adjust the working frequency of the graphic engine

##### Memory

Lets you adjust the working frequency of the video memory.

##### Load default

Restores the settings to their defaults.

##### *2D Test*

Lets you test your settings.



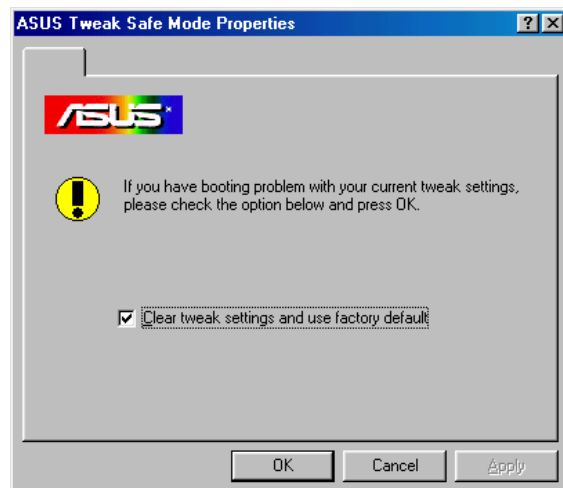
# IV. Software Reference

## Tweak Safe Mode Recovery

**Timing Adjustment (Safe Mode)** lets you restore the working frequency of the graphic engine and video memory to their factory default settings. This mode is used when you encounter problems when starting or restarting Windows using your customized tweak settings.

### Using Tweak Safe Mode Recovery

1. Restart Windows in safe mode. To start Windows in safe mode, hold the F8 key until the Windows Startup Menu appears. For some machines and Windows 98, you can use CTRL to bring up the Startup Menu. Enter the number for **Safe mode** and then press ENTER.
2. In Windows, click **Start** and point to **Programs, Asus, Tweak Utility**, and then click **Tweak Safe Mode Recovery**.
3. The **ASUS Tweak Safe Mode Properties** box appears. Click the appropriate settings.



### Timing Adjustment (Safe Mode)

Select the **Clear tweak settings and use factory default** box to change back the timing adjustment settings to their factory defaults and then click **OK** to restart Windows properly.

# IV. Software Reference

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## ASUS Digital VCR

### NOTES

1. The following can only be used as a general reference and may not be an exact reflection of the software version you are using. The contents are subject to change at any time without notice.
2. ASUS Digital VCR can only be used with the TVR model (models with a Video Decoder) and monitors or monitor drivers that are designed for I2C bus control.
3. ASUS Digital VCR currently only supports Windows 9x/ME.

ASUS Digital VCR can be used to:

1. View images using your monitor as screen from traditional consumer devices, such as videocassette players, camcorders, digital cameras, and laser disc players through the onboard RCA or SVHS VIDEO-IN connectors.
2. Capture live motion video up to 30 frames/second (minimum system requirement: Pentium II/400). For TimeShifting™ recording at MPEG-II format (704x480, 30 frames/second), minimum system requirement is Pentium III/600 (recommended: Pentium III/700 or higher).

**NOTE:** You should already have installed DirectX 7 or later to use ASUS Digital VCR (see **III. Software Setup | Install DirectX**)

### *Running ASUS Digital VCR*

To run the utility, click **Start** and point to **Programs** and then **ASUS Digital VCR** and then click **ASUS Digital VCR**.

You may also run ASUS Digital VCR by clicking or right-clicking the ASUS Control Panel icon (see **IV. Software Reference | ASUS Control Panel**) on the taskbar's status area to display the ASUS Control Panel, pointing to **ASUS Digital VCR**, and then clicking it.

### *Uninstalling ASUS Digital VCR*

To uninstall the software, click **Start** and point to **Programs** and then **ASUS Digital VCR** and then click **Uninstall**. You may also uninstall the software using the **Add/Remove Programs Properties** dialog box at the **Windows Setup** tab. See Windows online help for more information on removing a Windows component.

# IV. Software Reference

## Using ASUS Digital VCR

ASUS Digital VCR has been designed as a standard Windows program. That is, functions can be accessed by means of the main menu bar or by clicking the toolbar buttons on the program window. It has three operational modes: **Live Mode**, **Capture Mode**, and **Playback Mode**.

Menu bar



Toolbar buttons

ASUS Digital VCR monitor



Monitor toolbox

To resize the monitor, drag a window corner (pointer becomes a double-headed arrow when it is ready) to the desired size. The video size status will also change accordingly.

Video standard  
(see **Notes** below)

Video size  
(Default: 352x240)

**NOTES:** Users of PAL D/K models of the graphics card should select PAL-BGHI for the Video Standard.

## Monitor Toolbox



**Exit** (Click to quit ASUS Digital VCR)


**OSD Setup** (Click to set up the video source and adjust Brightness/Contrast and Saturation/Hue; see **On Screen Display** later in this section)

**Minimize all window** (Click to minimize monitor and program window)

**Zoom out window**

**Zoom in window**

**Enable Always on Top** (see **Always on Top** later in this section)


When Always on Top is enabled, this icon changes into  (Disable Always on Top)



## IV. Software Reference

### Enable Always on Top

The **Enable Always on Top** option is provided for users who may wish to continue watching VCD/DVD/TV programs or want to have the ASUS Digital VCR monitor visible while doing other tasks, such as when downloading files from the Internet or word processing. To keep the monitor always on top of other programs, click the **Enable Always on Top** button or select the **Always on Top On** command from the **Window(W)** menu. Position the monitor where it will not interfere with your other tasks.

To disable the Always on Top option, click  or select the **Always on Top Off** command from the **Window(W)** menu.

### OSD Setup

When first using ASUS Digital VCR, you must set up the video source. Use the **OSD Setup** button on the ASUS Digital VCR Control Panel to show or hide the video source setup screen on the monitor.



Use your mouse/pointing device or the UP and DOWN arrow keys on your keyboard to select options (*Brightness, Contrast, Saturation, Hue, Connector*) and then the LEFT (select to the left or to decrease) or RIGHT (select to the right or to increase) arrow keys to change an option. You may also use your mouse/pointing device to change an option by clicking the appropriate item or slider.

To set the settings back to its default, click  (or use the F9 hot key or select **Video Source** on the **Setup(S)** menu) and then click **Reset Video** in the **Video Source** tab. Click **OK** to close the **Video Source** tab.

## IV. Software Reference

Live Mode 




The default mode when you open ASUS Digital VCR is **Live Mode**, which lets you view live video. Under this mode, the VCR monitor can be resized (default size: 352x240) by dragging either of the four window corners (*see* preceding illustration on the ASUS Digital VCR monitor). Live video can also be viewed in full screen mode or set as desktop wallpaper.

To switch to Live Mode from Capture Mode, click  or press F2.

### *Enable full screen display*


To *Enable full screen display*, click  or use CTRL+S.

To disable full screen display, double-click the display and then click . You may also use CTRL+S or ESC to disable full screen display. The display will then revert to its previous size.

### *Enable wallpaper display*

**NOTE:** Before using the *Enable wallpaper display* option, make sure that the **View as Web Page** option of the Active Desktop setting is not selected (*see* **Start – Settings – Active Desktop – View as Web Page**).

To *Enable wallpaper display*, click  or use CTRL+W.


To disable desktop wallpaper, double-click anywhere the display and then click . You may also use CTRL+W to disable the desktop wallpaper.

### *Setup*

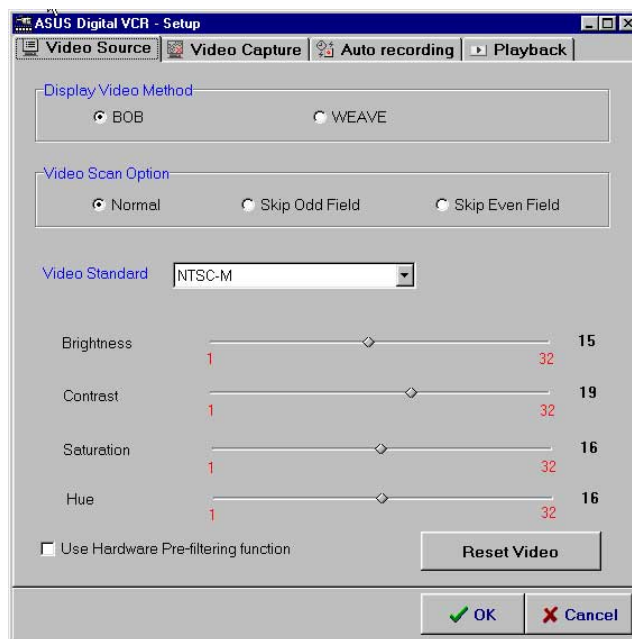
To set up *Video Source*, click .

#### Video Source

**Video Source** lets you set the display video method, video scan option, video standard, brightness/contrast, saturation/hue and other options.

To use **Video Source**, click  (or use the F9 hot key or select **Video Source** on the **Setup(S)** menu).

## IV. Software Reference



### *Display Video Method*

**Display Video Method** lets you select ways to display video on your monitor: *BOB* (default) or *WEAVE*. These methods are simple ways of correcting interlaced display. ASUS Digital VCR by default will use the bob method for correcting interlaced display. If your video contains no motion, weave would be a best choice. For more information, visit [www.microsoft.com/hwdev/devdes/vpe.htm#Interleaved](http://www.microsoft.com/hwdev/devdes/vpe.htm#Interleaved).

### *Video Scan Option*

**Video Scan Option** lets you select the scanning method to use: *Normal* (default), *Skip Odd Field*, and *Skip Even Field*. Use this option to reduce the strobing effect that results from fast moving objects when rendering to video. *Normal* uses both fields to render the video output. For PAL output, use *Skip Odd Field* and for NTSC output, use *Skip Even Field*.

### *Video Standard*

**Video Standard** lets you select the video standard to use for display: *NTSC-M* (default), *NTSC-N*, *NTSC-4.43*, *PAL-BGHI*, *PAL-M*, *PAL-N*, *PAL-4.43* or *SECAM*.

**NOTE:** Users of the PAL D/K models should select PAL-BGHI for the Video Standard.

If desired, you may adjust the Brightness, Contrast, Saturation, and Hue of the VCR monitor. Use your mouse/pointing device to make the necessary adjustments.

Click again the **Video Source Option (F9)** button on the ASUS DVCR Control Panel to exit from the video source option screen.

### *Use Hardware Pre-filtering function*


*Use Hardware Pre-Filtering function* (default: disabled) lets you use your graphics card for pre-filtering (pre-smoothing the image before compression encoding).

# IV. Software Reference

## Capture Mode



**Capture Mode** lets you capture and store images into your computer. It has three capture options: **Video Snapshot**, **Capture Frames**, and **Capture Video**. Video Recording adds an auto-timer recording function that allows you schedule your video recording (see **Auto Recording** later in this section).

To switch to Capture Mode from Live Mode, click  or press F3.


Captured images are shown on the Preview Library. Double-click an image to play it back or view it with the associated image viewer or application (the path and file name of the selected image is shown below the image). You may also right-click an image or select an image and then click the appropriate button to **Playback** (or view), **Save As** (a new file), or **Delete** that image.

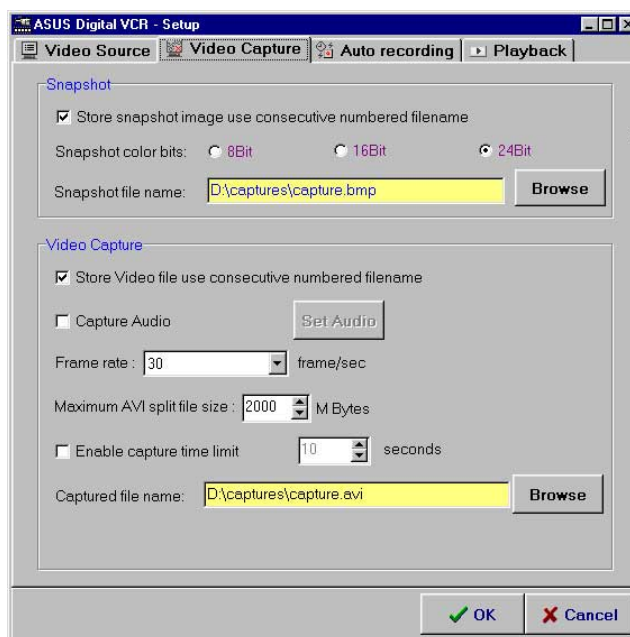
## Setup

To set up *Video Capture*, click .

## Video Capture

**Video Capture** lets you set the snapshot and video capture settings.

To use **Video Capture**, click  (or use the F9 hot key or select **Capture Mode** on the **Setup(S)** menu).



## IV. Software Reference

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**IMPORTANT:** It is the intent of ASUS that this product be used in full compliance with the copyright laws of your respective and other countries and that prior permission be obtained from copyright owners whenever necessary.


### *Windows 98*

When you install the Windows 98 Driver of your ASUS graphics card (only models with the VIDEO-IN connector), the video capture driver will automatically be installed on your system. This video capture driver follows Microsoft Video for Windows standard and can open **up to a capture window size of 704 x 480**. It can be used with some applications that use video capture as an option, such as video conferencing, net meeting, or digital video authoring applications.

**IMPORTANT:** You must enable the DMA transfer mode of your hard disk (EIDE HD) to get the maximum data transfer capability (**704 x 480, 30 frames/second**) during the video capture process. Otherwise, your system may become unstable.

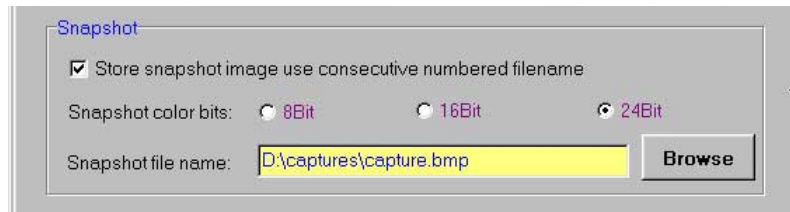
# IV. Software Reference

## Setting Up for Capturing Images

You must be in capture mode to capture images. To do this, click  on the ASUS Digital VCR toolbar.

**NOTE:** ASUS Digital VCR will automatically detect and warn you if the capture driver installed in your system is not compatible with ASUS Digital VCR.

### Snapshot



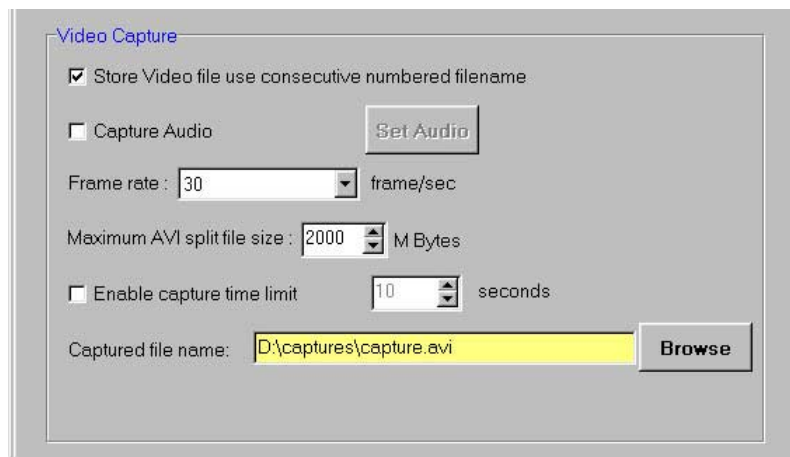
**Store image use consecutive numbered filename:** Select preferred file naming convention (*default:* selected)

**Snapshot color bits:** Select preferred color bits (*default:* 24Bit)

**Snapshot file name:** Type preferred path and file name (*default:* C:\CAPTURE.BMP).

You are now ready to capture video snapshots (F5).

### Video Capture



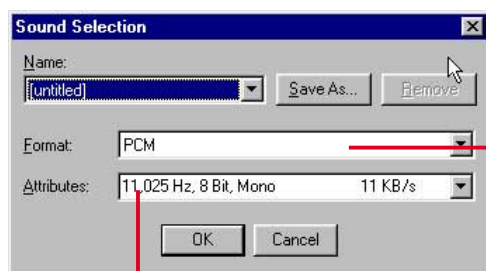
**Store Video file use consecutive numbered filename:** Select preferred file naming convention (*default:* selected)

**Capture Audio:** Select if you prefer to include audio when capturing video (*default:* not selected). When selected, the **Set Audio** option becomes available.



## IV. Software Reference

**Set Audio** displays the **Sound Selection** dialog box, which lets you save a scheme for your audio setting or select from a list, select the audio format type and audio format attributes of the video to be captured.



(PCM, which means Pulse Coded Modulation or uncompressed audio data, is currently the only available selection)

Selecting a lower quality format, for example, **\*,000 Hz, 8 Bit, Mono 11KB/s**, will make your video file size smaller while a higher quality format, for example, **44,100 Hz, 16 Bit, Stereo 172 KB/s**, can make the sound quality of your video file better, but your video file size will be larger.

**Frame rate** lets you select the preferred video data rate for the images to be captured (*default*: 30 frame/sec, which is full motion).

**Maximum AVI split file size** lets you set the maximum size for each video capture (*default*: 2000 M Bytes).

**Enable capture time limit** lets you limit the capture time (*default*: 10 seconds).

**NOTE:** Make sure that you have enough space on your hard disk drive. A 640x480 pixel video size, full-color (24-bit), full-motion (30 frames /sec) video capture requires about 27MB/sec (before compression).



**Captured file name** lets you set the path and file name of the images to be captured (*default*: C:\CAPTURE.AVI).

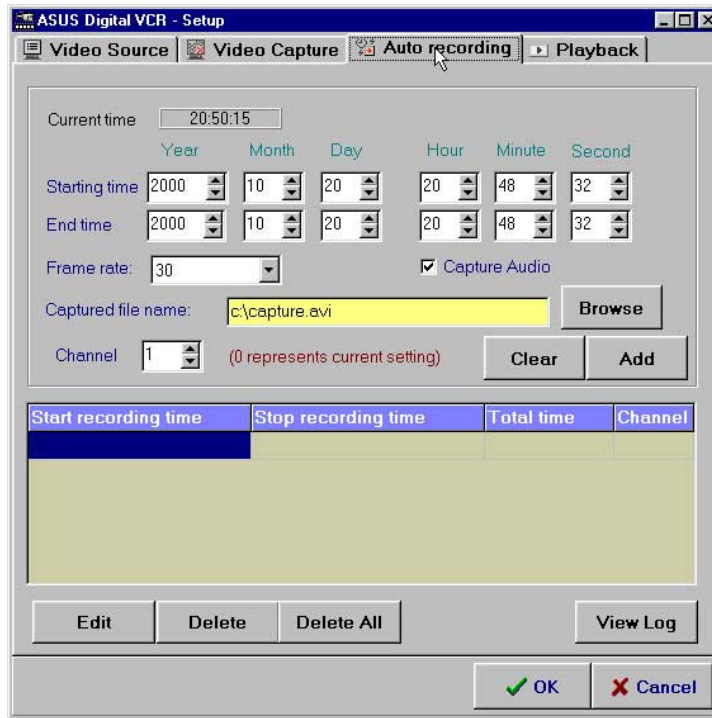
You are now ready to capture video images.

# IV. Software Reference

## Auto Recording

**Auto recording** adds an auto-timer recording function that allows you to schedule your video recording.

To use **Auto recording**, click  (or use the F9 hot key) and then click the **Auto recording** tab or simply click  on the toolbar or select **Auto-Recording Setup** on the **Setup(S)** menu.



**Auto recording** includes the **Current time** (Hour:Minute:Second), **Start Time** (Year | Month | Day | Hour | Minute | Second), **End Time** (Year | Month | Day | Hour | Minute | Second), **Frame Rate**, **Channel**, and options to **Capture Audio** to the recording, **View Log** (of auto recorded events), and to **Delete** one or **Delete All** the pre-recording settings.

**Add** lets you add while **Clear** lets you clear your pre-recording setting/s.


The video recording will start at the designated date and time.

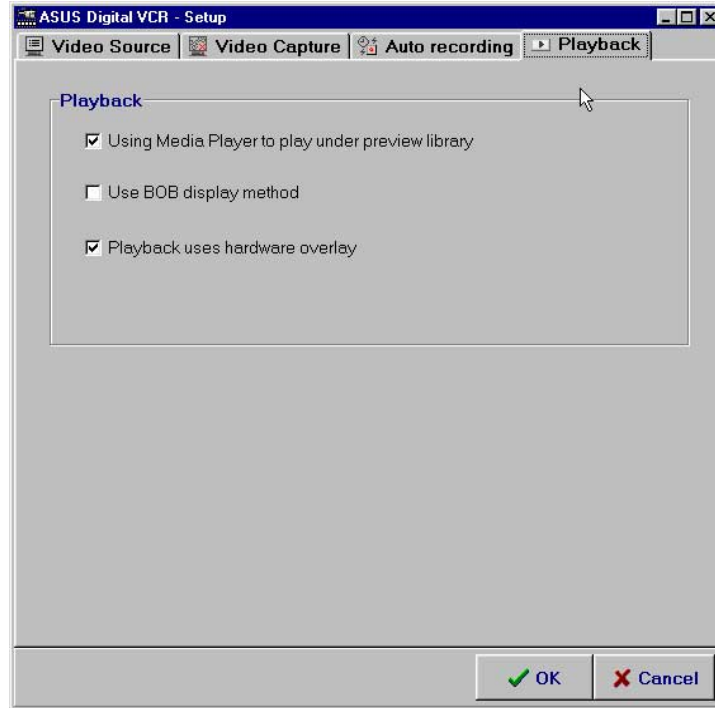
**NOTE:** The video recording settings assume that you have a video device connected to your ASUS graphics card and that the device is turned on and running.

# IV. Software Reference

## Playback

**Playback** lets you set the options when playing back video files.

To use **Playback**, click  (or use the F9 hot key) and then click the **Playback** tab or simply select **Playback** on the **Setup(S)** menu.




## Capturing Images

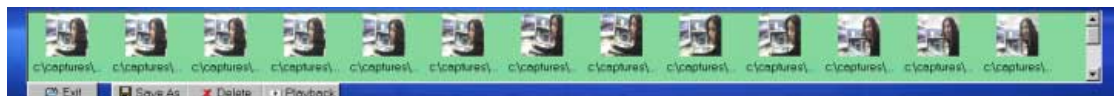
### Video Snapshot F5

**Video Snapshot** (*hotkey*: F5) lets you capture video stream data as single images and then show these images on your desktop almost simultaneously through the default image viewer. It supports any plug-in picture viewer/image processing program to view the captured images.

To begin capturing, do the following:

1. Click  on the ASUS Digital VCR toolbar or press the F5 key to capture the desired image from the ASUS Digital VCR monitor.

The screen will freeze momentarily and the captured image (saved as a BMP file, using consecutive numbers) will be previewed in the **Preview Library** window.



You may click an image to view that captured image.


2. Repeat Step 1 as necessary.

# IV. Software Reference

## Capture Frames F6

**Capture Frames** (*hotkey: F6*) lets you capture video stream data as consecutive images and then show these images on your desktop through your default movie player. **Capture Frames** is useful in animation.

To begin capturing, do the following:


1. Click  on the ASUS Digital VCR toolbar or press the F6 key to open the **Capture Frames** box.
2. Click **Capture** to begin capturing the desired frame or frames on ASUS Digital VCR monitor and then click **Stop** when the desired end frame is reached. The initial frame of the captured video (saved as an AVI file) will immediately be displayed on your movie player.



## Capture Video F7

**Capture Video** (*hotkey: F7*) lets you capture video stream data continuously and then show these images on your desktop through your default movie player.

To begin capturing, do the following:

1. Click  on the ASUS Digital VCR toolbar or press the F7 key.
2. The Video Capture Setup dialog box opens. Set the different options as desired and then click **Start**. Click **Stop** when the desired end frame is reached. The initial frame of the captured video (saved as an AVI file) will immediately be played back.



### NOTE

1. With the new TimeShifting™ technology from ASUS, you can start playing back the captured video anytime (*see TimeShifting™* later in this section), even while recording!

## IV. Software Reference

### *TimeShifting™*

The innovative TimeShifting™ feature of the ASUS Digital VCR lets you record incoming video feeds into a buffer. So if you're watching your favorite TV show on your computer and you had to leave but you don't want to miss the rest of the show, all you need is to record it with ASUS TimeShifting™. When you come back, you don't have to wait (unlike traditional recorders) for the recording to finish to be able to watch what's been recorded. Just click **Play** and playback will start immediately (this while recording still continuing in the background)!




# IV. Software Reference

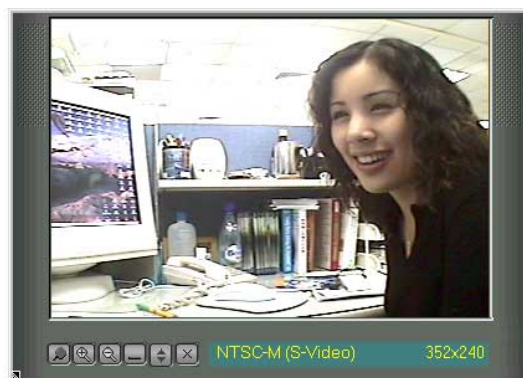
## Playback Mode



**Playback** (*hotkey: F4*) lets you play back captured video stream data using ASUS Digital VCR.

To begin playback, do the following:

1. Click  on the ASUS Digital VCR toolbar or press the F4 key.
2. The **Open** (video file) dialog box opens. Double-click the video file you want to open. You may need to locate the drive or folder that contains the file.
3. Playback immediately begins. A progress indicator will show the elapsed time.



Progress Indicator



## NOTES

During playback,

1. You may apply some filters to create effects on your video. Simply click **Filters** to apply a filter to the video file.
2. You may apply **Fast Motion**, **Slow Motion**, and other effects. Simply select any of the effects on the **Play(P)** menu or click any of the buttons on the Playback toolbar.





# IV. Software Reference

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# IV. Software Reference

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## IV. Software Reference



### ASUS VideoSecurity

*Windows 98 Only*

**NOTE:** The ASUS VideoSecurity utility can only be used with the Deluxe/TVR (or models with Video-In/TV-Out) model.

ASUS VideoSecurity lets you detect intruders into your system and environmental changes and monitor a specified location or any incoming visitor. If VideoSecurity detects any deviation from the norm that you set, it may give an error message or not. Regardless of any messages, VideoSecurity will record:

- Any information about the monitored activity and then store these to an event log file. If you have already installed Microsoft Access 97 or later, you may use these event log data and export it as an Access database for further data management and processing.
- The last two detected snapshot image files from the video captured stream (stored as bitmap format). Any image processing or editing software can then be used to view, modify, or distribute them.

### *Limitations*

Because of differences in hardware sensitivity, VideoSecurity may not completely detect all possible errors. Before you execute VideoSecurity, there are some limitations you have to understand so that you can appropriately use it.

- Due to changing temperatures, the captured image of some CCDs will be twisted, which may give a wrong detection.
- If the features (e.g., color, luminance) of the object are similar to that of background, the object may not be detected clearly.
- The CCD cannot capture the object smoothly and immediately when an object moves too fast.

VideoSecurity is designed for the widest environments possible and error conditions, therefore it is necessary to tune the parameters in VideoSecurity Setup Wizard to get the best detection results.

### *Setup Wizard*

**Setup Wizard** guides you through setting up the VideoSecurity features.

1. To open Setup Wizard, click the **Start** button, and then point to **Programs**, **ASUS Video Security**, and then click **Setup Wizard**. The **Video Security Setup Wizard** dialog box appears.



# IV. Software Reference

**NOTE:** The following descriptions are only for selected features of the ASUS VideoSecurity utility. For a full description of the features described in this manual and other features, refer to the ASUS VideoSecurity Online Help (HTML) format included with your support CD. You may also click the **Help** button to open the online help file.

## Main Window

### VideoSecurity Running Style

- **Normal Window** is the default style, that is, VideoSecurity will function as a standard Windows program.
- **Always on Top** is like a Normal Window except that the main window and control panel is shown always on top of other programs or utilities. You may right click to enable or disable this function at the main window anytime.
- **Minimize on Tray** lets you hide the main VideoSecurity window. This is useful when you don't want anyone to know you are monitoring. When this option is selected, the VideoSecurity icon will appear on the taskbar in the lower-right corner of your screen. Whenever VideoSecurity detects a problem, it will run. You may also run VideoSecurity by clicking the icon.

### VideoSecurity Working Directory

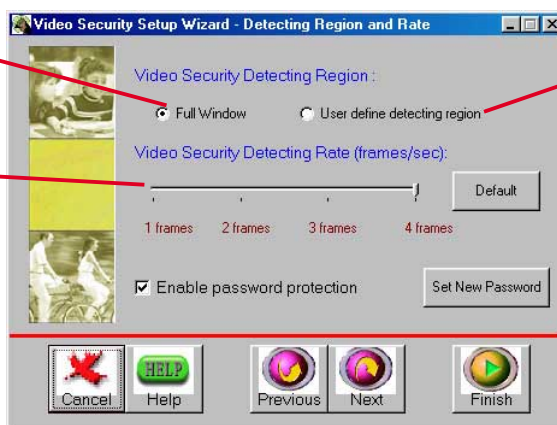
The **VideoSecurity Working Directory** is the folder where the utility stores its temporary working and log files. Default is C:\VIDEOSEC. The directory is user-configurable. When VideoSecurity is ran, a sub-directory will automatically be created under the main directory, using the current date and time as the folder name, for example, "1999.11.30\_12.30.20" means that VideoSecurity was started on 30 November 1999 at 12:30:20 PM.

**IMPORTANT:** Do not change the working folder's name while VideoSecurity is running. Otherwise, a fatal runtime error will occur.

### VideoSecurity Detecting Region

Detects all visible area when watchdog function is on

This sets the scan rate. Default is 2 frames/sec. The higher the scan rate, the more accurate is the detection. Higher rates, however, entails a higher CPU usage. Do not use a high rate when you plan to use VideoSecurity while using other applications.



Detects only the area defined by the user when watchdog function is on. Feature will take effect only when VideoSecurity runs the next time

# IV. Software Reference

## Sensibility

Currently, only one option is available to set the image format



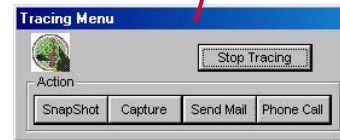
This is an important parameter when setting up VideoSecurity. Your environment may change often but VideoSecurity is concerned only when there is a change in the environment. Make sure that you select a suitable sensibility for your environment.

## Define Tracing Procedure

VideoSecurity not only detects errors or problems in your card but also monitors or detects an intrusion.



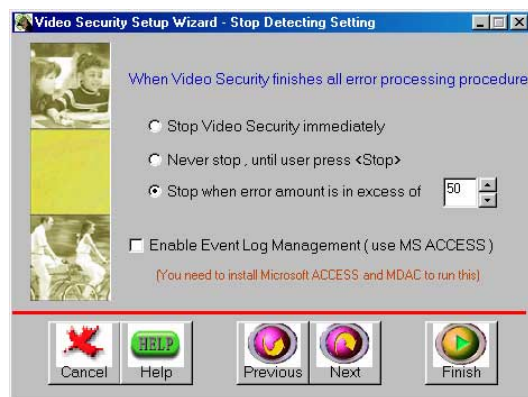
Use this to stop tracing or to choose the error processing method to use while tracing. This box appears when an error occurs.



## Error Processing Procedure

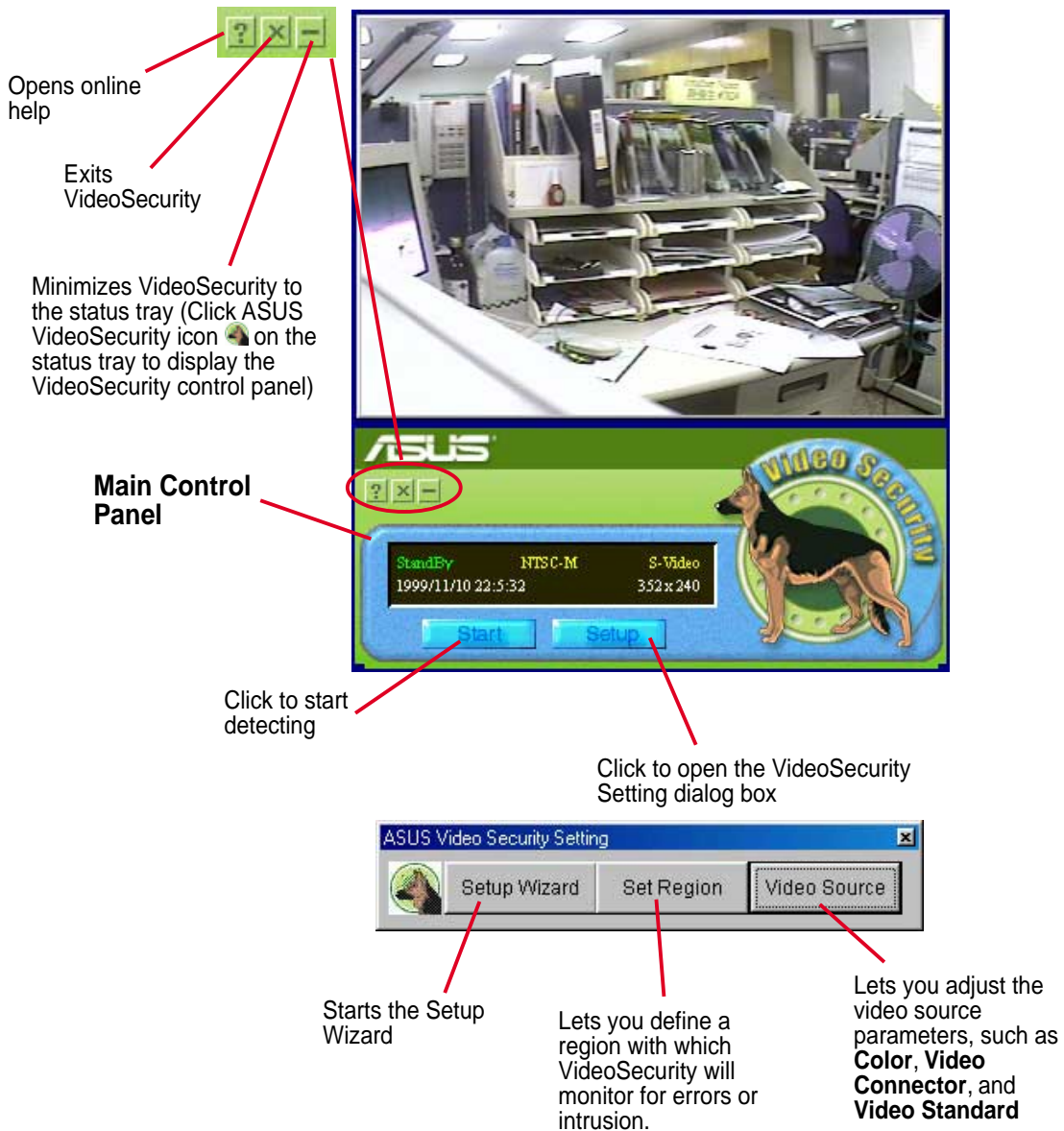


## Stop Detecting Setting



# IV. Software Reference

## Running ASUS VideoSecurity



The image shows the ASUS VideoSecurity software interface. The top part is a window with a green header and a blue body. It displays system information: StandBy, NTSC-M, S-Video, 1999/11/10 22:5:32, and 352x240. There are 'Start' and 'Setup' buttons. A dog icon is on the right. The bottom part is a dialog box titled 'ASUS Video Security Setting' with three buttons: 'Setup Wizard', 'Set Region', and 'Video Source'.

Opens online help

Exits VideoSecurity

Minimizes VideoSecurity to the status tray (Click ASUS VideoSecurity icon on the status tray to display the VideoSecurity control panel)

Main Control Panel

Click to start detecting

Click to open the VideoSecurity Setting dialog box

Starts the Setup Wizard

Lets you define a region with which VideoSecurity will monitor for errors or intrusion.

Lets you adjust the video source parameters, such as **Color**, **Video Connector**, and **Video Standard**

### Shortcut Keys

ESC	Exits VideoSecurity
F1	Opens Online help
F2	Toggles VideoSecurity / Stop Watchdog function
F3	Opens Setup menu
F4	Shows error log box



# IV. Software Reference

## Using the Other Utilities



### ASUS TWAIN Interface

#### Windows 98 Only

TWAIN is a cross-platform interface for acquiring images captured by scanners, digital cameras, and frame grabbers. The ASUS TWAIN Driver is currently supported only when used with Adobe Photoshop® (see [www.adobe.com](http://www.adobe.com) for details). If you already have Photoshop installed and you chose to install the ASUS TWAIN Driver, you can use Photoshop to import a still image using the ASUS TWAIN interface installed.

**NOTE:** The following steps assume that you are already running Photoshop and that you have already connected a compatible and working capture device, such as a web cam, to your system.

#### Using the ASUS TWAIN Interface for the First Time

1. From the **File** menu, click **Import** and then **Select TWAIN\_32 Source** to specify the capture option.

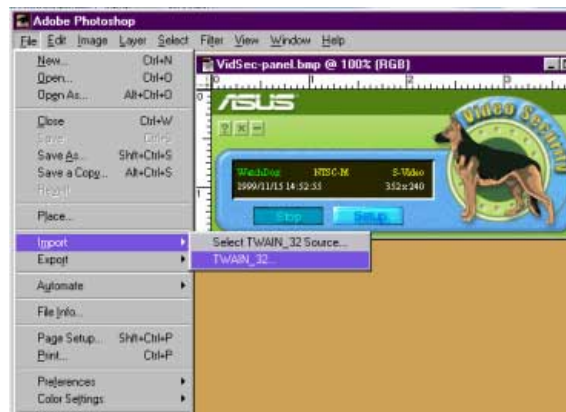
Select **ASUS Frame Capture Source**.



**NOTE:** You do not need to repeat this step for subsequent uses of the ASUS TWAIN module. If more than one TWAIN device is installed in your system and you want to switch devices, use **Select TWAIN\_32 Source** command.

#### Importing an Image Using the ASUS TWAIN Interface

1. From the **File** menu, click **Import** and then **TWAIN\_32**.

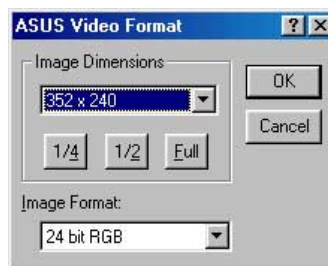


# IV. Software Reference

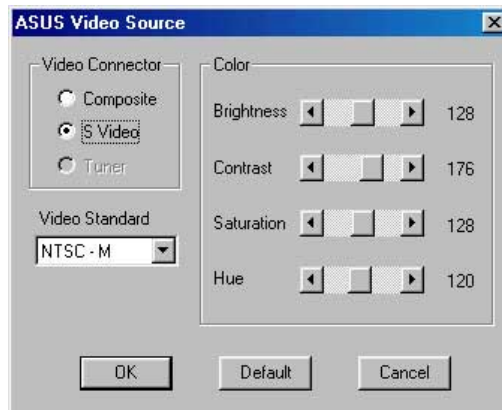
2. When the ASUS TWAIN Driver utility appears, click **Options** and then **Video Format**.



3. In the **Image Format** list of the **ASUS Video Format** dialog box, click **24 bit RGB**.



4. Click **Options** and then **Video Format** to select your video source. If desired or necessary, you may adjust the **Brightness**, **Contrast**, **Saturation**, and **Hue** of your image.

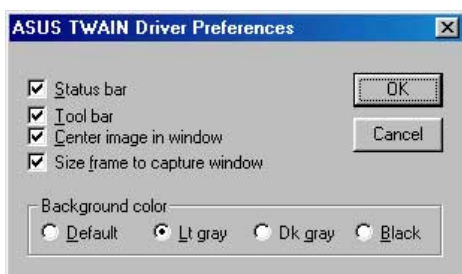



You are now ready to capture.


5. To capture, click the capture button  or click the **Capture** menu and then **Single Frame**.

## Other Options

**Preferences Menu:** Click to adjust the background color of your image and other options.



 **Toggle preview video:** Click button or click the **Options** menu and then **Preview** to toggle between the preview video options. A pressed button (or a checked **Preview** command) indicates that the preview is on and vice-versa.

 **Toggle overlay video:** Click button or click the **Options** menu and then **Overlay** to toggle between the overlay video options. A pressed button (or a checked **overlay** command) indicates that the overlay preview is on and vice-versa.

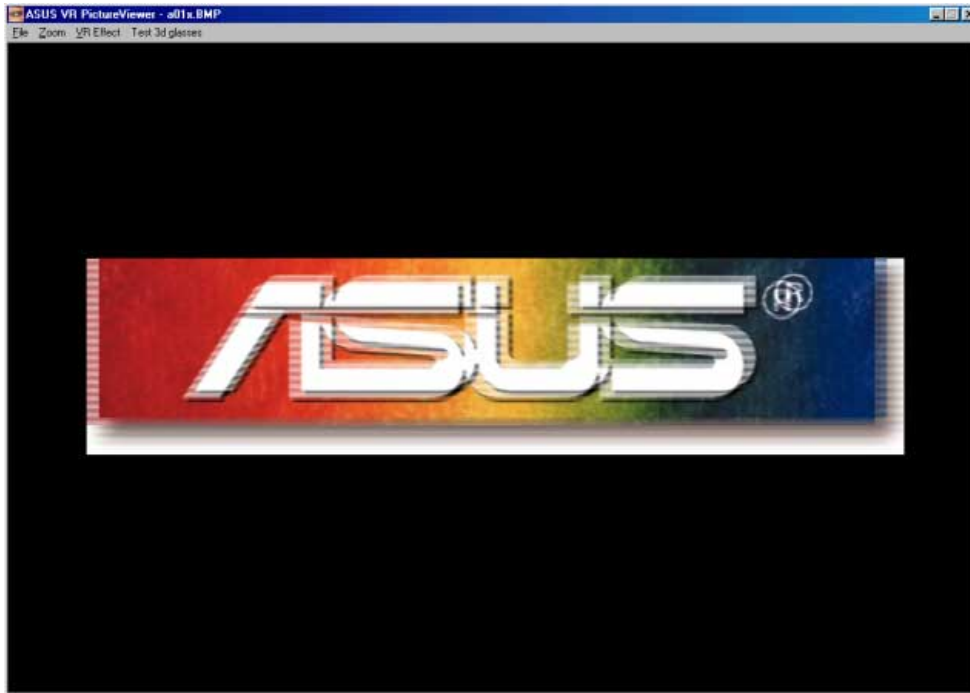
## IV. Software Reference



### ASUS VR PictureViewer

*Optional*

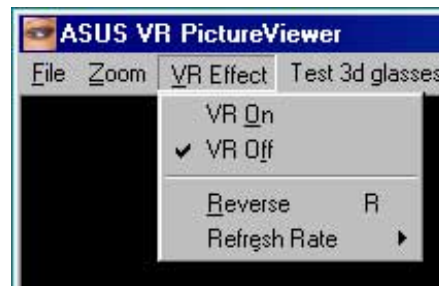
**ASUS VR PictureViewer** lets you view stereo images, size your stereo image, set the VR effect of your 3D glasses (ASUS VR-100G), and test your 3D glasses' functionality.



To run ASUS VR PictureViewer, click or right-click the ASUS Control Panel icon (see **IV. Software Reference | ASUS Control Panel**) on the taskbar's status area to display the ASUS Control Panel, point to **VR PictureViewer**, and then click it.

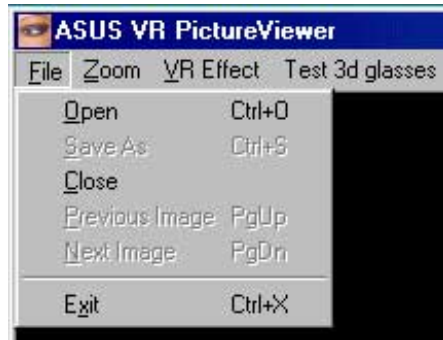
### *Opening or Displaying a Stereoscopic or 3D File*

1. Click the **VR Effect** menu and then click **VR On** to enable stereoscopic display.



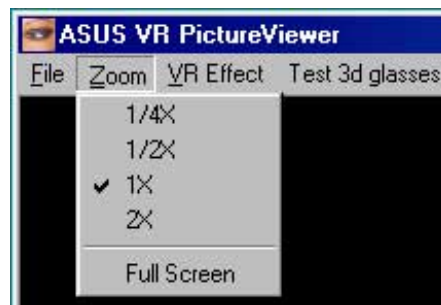
## IV. Software Reference

- Click the **File** menu and then click **Open** to select a file. Select the file from the **Open** dialog box or select another folder and then click **Open**. The 3D image appears on the VrViewer main window (see preceding page for an opened 3D image file. Note that the 3D effect is not shown in this picture).



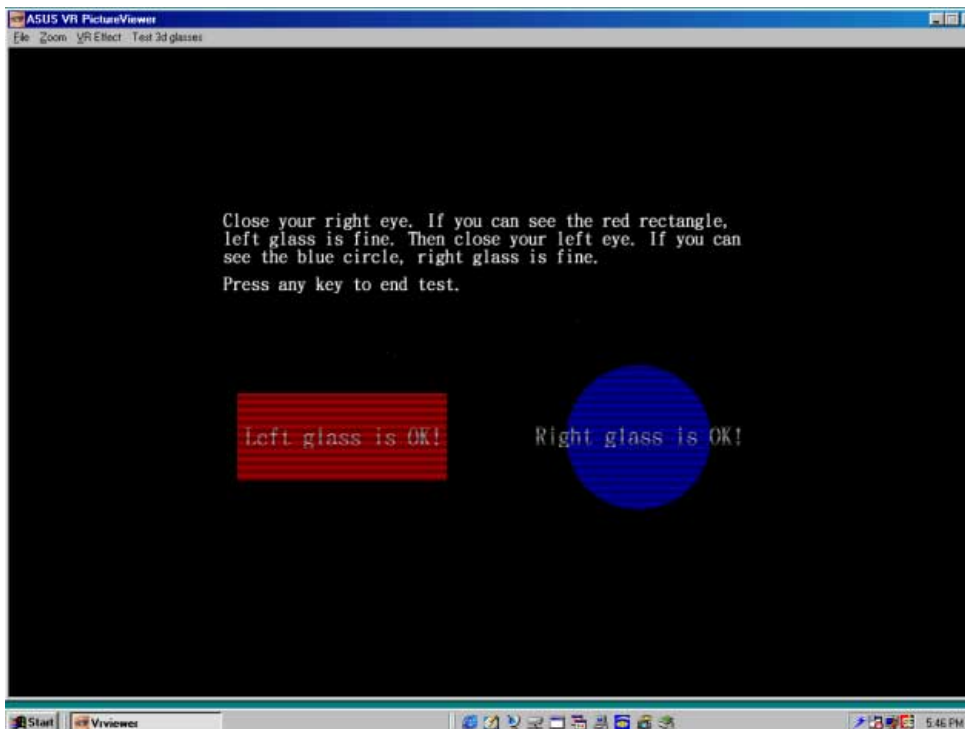
### Changing the View

- Click the **Zoom** menu and then click the desired zoom percentage.



### Testing the 3D Glasses

- Click the **Test 3D glasses** and then follow the onscreen instructions.



## IV. Software Reference



### ASUS StereoTV

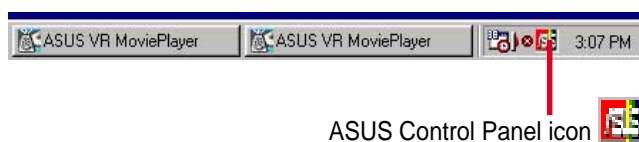
*Optional  
Windows 98 Only*

**NOTE:** The ASUS StereoTV utility can only be used with the Deluxe/TVR (or models with Video-In/TV-Out) model.

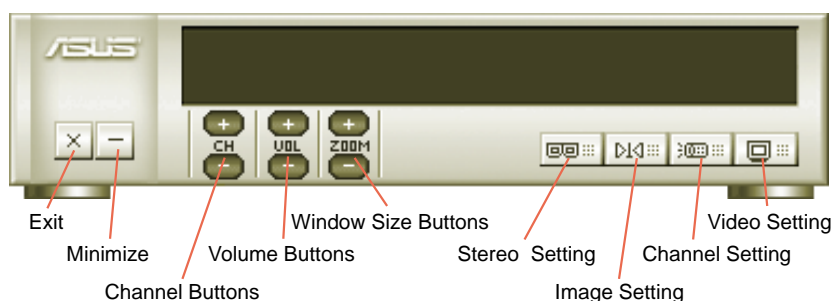
It can be used to view stereo video images with the optional 3D glasses (ASUS VR-100G) using your monitor or TV as screen from traditional consumer devices, such as videocassette players, camcorders, digital cameras, and laser disc players through the onboard RCA or SVHS VIDEO-IN connectors.

**NOTE:** You should already have installed DirectX 7 or higher to use ASUS StereoTV (see **III. Software Setup | Install DirectX**)

To run **StereoTV**, right-click the ASUS Control Panel icon on the taskbar's status area to display the ASUS Control Panel, point to **StereoTV**, and then click it.



### ASUS VR MoviePlayer



#### Buttons and Functions

##### Channel Buttons

Clicking selects the next higher channel while pressing selects the next lower channel.

##### Volume Buttons

Clicking increases the volume while pressing decreases the volume.

##### Window Size Buttons

Clicking increases the window size while pressing decreases the window size.

##### Stereo Setting

Use this button to toggle between non-stereoscopic and stereoscopic mode.

# IV. Software Reference

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## Image Setting

Use this button to view correctly a stereoscopic image. For example, with a space inverted pseudoscopic spatial image, where the background appears in front and the foreground in the back. (**Hotkey:** R).

## Channel Setting

Use this button to select an appropriate cable standard for your video system.

**IMPORTANT!** Be sure that the system and standard of the country where you will be installing your card is set appropriately. For example, you should have the NTSC model if you plan to use your card in countries with NTSC systems, PAL-BGHI model in countries with PAL-BGHI systems, or PAL-4.43 model in countries with PAL-4.43 systems.

## Video Setting

Use this button to select the video format (**Options:** NTSC, PAL-BGHI, PAL-4.43) and video source (**Options:** Composite, Video).

## Minimize Button

Clicking this button minimizes the ASUS VR MoviePlayer.

## Exit Button

Clicking this button closes **StereoTV**.



# V. Resolution Table

Resolution	Vertical Frequency	Horizontal Frequency	Color Depth		
			8bpp = 256 colors Standard	16bpp = 65K colors High Color	32bpp = 16.7M colors True Color
640 x 480	60Hz	31.5	✓	✓	✓
	70Hz	34.9	✓	✓	✓
	72Hz	37.9	✓	✓	✓
	75Hz	37.5	✓	✓	✓
	85Hz	43.3	✓	✓	✓
	100Hz	51.0	✓	✓	✓
	120Hz	61.8	✓	✓	✓
	140Hz	72.9	✓	✓	✓
	144Hz	75.2	✓	✓	✓
	150Hz	78.7	✓	✓	✓
	170Hz	90.3	✓	✓	✓
	200Hz	108.0	✓	✓	✓
	240Hz	132.9	✓	✓	✓
800 x 600	60Hz	37.9	✓	✓	✓
	70Hz	43.8	✓	✓	✓
	72Hz	48.2	✓	✓	✓
	75Hz	46.9	✓	✓	✓
	85Hz	53.7	✓	✓	✓
	100Hz	63.7	✓	✓	✓
	120Hz	77.2	✓	✓	✓
	140Hz	91.1	✓	✓	✓
	144Hz	94.0	✓	✓	✓
	170Hz	112.7	✓	✓	✓
	200Hz	135.1	✓	✓	✓
	240Hz	166.2	✓	✓	✓
	1024 x 768	60Hz	48.4	✓	✓
70Hz		56.4	✓	✓	✓
72Hz		57.5	✓	✓	✓
75Hz		60.0	✓	✓	✓
85Hz		68.7	✓	✓	✓
100Hz		81.7	✓	✓	✓
120Hz		98.8	✓	✓	✓
140Hz		116.6	✓	✓	✓
144Hz		120.2	✓	✓	✓
150Hz		125.7	✓	✓	✓
170Hz		144.1	✓	✓	✓
200Hz		172.8	✓	✓	✓
240Hz		212.1	✓	✓	✓
1152 x 864	60Hz	53.7	✓	✓	✓
	70Hz	62.9	✓	✓	✓
	72Hz	64.9	✓	✓	✓
	75Hz	67.5	✓	✓	✓
	85Hz	77.1	✓	✓	✓
	100Hz	91.3	✓	✓	✓
	120Hz	111.2	✓	✓	✓
	140Hz	131.3	✓	✓	✓
	144Hz	135.2	✓	✓	✓
	150Hz	141.4	✓	✓	✓
	170Hz	162.9	✓	✓	✓
	200Hz	194.9	✓	✓	✓
	1280 x 960	60Hz	60.0	✓	✓
70Hz		69.9	✓	✓	✓
72Hz		72.1	✓	✓	✓
75Hz		75.2	✓	✓	✓
85Hz		86.0	✓	✓	✓
100Hz		101.7	✓	✓	✓
120Hz		123.5	✓	✓	✓
140Hz		145.1	✓	✓	✓
144Hz		150.5	✓	✓	✓
150Hz		157.2	✓	✓	✓
170Hz		179.8	✓	✓	✓

V. Resolution

# V. Resolution Table

Resolution	Vertical Frequency	Horizontal Frequency	Color Depth		
			8bpp = 256 colors Standard	16bpp = 65K colors High Color	32bpp = 16.7M colors True Color
1280 x 1024	60Hz	64.0	√	√	√
	70Hz	74.6	√	√	√
	72Hz	76.8	√	√	√
	75Hz	80.0	√	√	√
	85Hz	91.3	√	√	√
	100Hz	108.5	√	√	√
	120Hz	131.7	√	√	√
	140Hz	155.9	√	√	√
	144Hz	159.6	√	√	√
	150Hz	167.3	√	√	√
170Hz	191.8	√	√	√	
1600 x 900	60Hz	55.9	√	√	√
	70Hz	65.6	√	√	√
	72Hz	67.5	√	√	√
	75Hz	70.5	√	√	√
	85Hz	80.4	√	√	√
	100Hz	95.3	√	√	√
	120Hz	115.4	√	√	√
	140Hz	136.8	√	√	√
	144Hz	140.4	√	√	√
	150Hz	146.8	√	√	√
1600 x 1200	60Hz	75.0	√	√	√
	70Hz	87.5	√	√	√
	72Hz	90.1	√	√	√
	75Hz	94.0	√	√	√
	85Hz	106.1	√	√	√
	100Hz	127.5	√	√	√
120Hz	154.5	√	√	√	
1920 x 1080	60Hz	67.1	√	√	√
	70Hz	78.7	√	√	√
	72Hz	81.1	√	√	√
	75Hz	84.6	√	√	√
	85Hz	96.4	√	√	√
100Hz	113.9	√	√	√	
1920 x 1200	60Hz	74.6	√	√	√
	70Hz	87.4	√	√	√
	72Hz	90.0	√	√	√
	75Hz	94.0	√	√	√
	85Hz	106.7	√	√	√
	100Hz	126.7	√	√	√
1920 x 1440	60Hz	89.4	√	√	√
	70Hz	104.9	√	√	√
	72Hz	108.5	√	√	√
	75Hz	112.5	√	√	√
	85Hz	129.4	√	√	√
2048 x 1536	60Hz	95.5	√	√	√
	70Hz	111.9	√	√	√
	72Hz	115.3	√	√	√
	75Hz	121.3	√	√	√

# VI. Troubleshooting

Description	Recommended Action
<i>After installation and re-starting, Windows 95/98 informs me that the display setting is still incorrect.</i>	<ul style="list-style-type: none"><li>• Make sure the “Assign IRQ to VGA” option is enabled in the BIOS.</li><li>• Check if there is enough IRQ for VGA.</li><li>• Uninstall the driver, restart, and reinstall the driver.</li></ul>
<i>My monitor is not capable of high resolution or refresh rate.</i>	<ul style="list-style-type: none"><li>• It depends on the display characteristics of your monitor. Consult your monitor documentation for the proper configuration.</li></ul>
<i>DirectX or the other applications report no AGP memory available.</i>	<ul style="list-style-type: none"><li>• Windows 95 is not OSR2.1 or later.</li><li>• DirectX version is not 6.0 or later.</li><li>• You have not installed appropriate drivers for the AGP chipset. (e.g. VGARTD.VXD for Intel 440LX).</li><li>• Incorrect BIOS setting. BIOS must support at least 64MB for AGP aperture size.</li></ul>
<i>Games or applications report “No 3D acceleration hardware found.”</i>	<ul style="list-style-type: none"><li>• 3D works only in 16- or 32-bit color depth. Switch your color depth display mode to 16-bit (high color) or 32-bit (true color).</li><li>• Check necessary libraries, such as DirectX or OpenGL.</li><li>• Try to switch to a lower resolution.</li></ul>
<i>I cannot enable AGP memory or run I-Base test.</i>	<ul style="list-style-type: none"><li>• You may be using a motherboard with an Aladdin IV AGPset. To get the best compatibility, the display card uses AGP Bus Master mode instead of AGP execute mode for motherboards using this AGPset.</li></ul>
<i>My MPEG player displays bad quality video clips.</i>	<ul style="list-style-type: none"><li>• You must install DirectX 6 or later so that your player can take advantage of the hardware acceleration mode (DirectDraw).</li><li>• Try to switch to a lower resolution, color depth, or refresh rate. Switching to a lower mode allows your player to use hardware acceleration mode.</li><li>• Switch dual view mode to VGA or TV mode.</li></ul>
<i>I can't use VideoSecurity with my USB CCD or IEEE 1394 CCD.</i>	<ul style="list-style-type: none"><li>• VideoSecurity currently only supports S-Video or Composite CCDs. Any device used must be connected to an ASUS video card.</li></ul>
<i>I am using Video Security and it seems my hard disk space is almost exhausted.</i>	<ul style="list-style-type: none"><li>• This is a very important issue when you decide to use VideoSecurity with the “never stop” option. You must be aware of the free space of your hard disk—it must be enough for storing temporary files in the current working directory. If disk space is exhausted, VideoSecurity will not store any information and give you a warning message.</li></ul>

## VI. Troubleshooting

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*I am using VideoSecurity and I set the password option. I have forgotten my password, though. Is there a way to recover my password?*

- The only way to remove password protection is to recall the original password that you assigned. The password protection is still active even when you uninstall VideoSecurity and install a new copy. Make sure that the password that you assigned can be easily remembered. You may write down your password and store it in a safe place.