ASUS®

Graphics Card

Software Reference

E1496

Revised Edition V3

December 2003

Contents

Notices

Federal Communications Commission Statement

This device complies with Part 15 of the FCC Rules. 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.

> 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 Communication Statement

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

This class B digital apparatus complies with Canadian ICES-003.

Safety information

Electrical safety

- When adding or removing devices to or from the system, ensure that the power cables for the devices are unplugged before the signal cables are connected. If possible, disconnect all power cables from the existing system before you add a device.

- Make sure that your power supply is set to the correct voltage in your area. If you are not sure about the voltage of the electrical outlet you are using, contact your local power company.

- If the power supply is broken, do not try to fix it by yourself. Contact a qualified service technician or your retailer.

Operation safety

- Before installing devices on your motherboard, carefully read all the manuals that came with the package.

- Before using the product, make sure all cables are correctly connected and the power cables are not damaged. If you detect any damage, contact your dealer immediately.

- To avoid short circuits, keep paper clips, screws, and staples away from connectors, slots, sockets and circuitry.

- Avoid dust, humidity, and temperature extremes. Do not place the product in any area where it may become wet.

- Place the product on a stable surface.

- If you encounter technical problems with the product, contact a qualified service technician or your retailer.

Macrovision Corporation Product Notice

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only *unless otherwise authorized by Macrovision Corporation*. Reverse engineering or disassembly is prohibited.

About this guide

Conventions used in this guide

To make sure that you perform certain tasks properly, take note of the following symbols used throughout this manual.

WARNING: Information to prevent injury to yourself when trying to complete a task.

CAUTION: Information to prevent damage to the components when trying to complete a task.
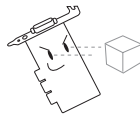
IMPORTANT: Information that you MUST follow to complete a task.
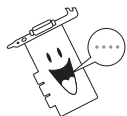
NOTE: Tips and additional information to aid in completing a task.

Typography

Bold Text	Indicates a menu or an item to select.
<Key> enclosed in the less-than and greater-than sign	Indicates that you must press the enclosed key. Example: **<Enter>** indicates that you must press the Enter or Return key.

Where to find more information

Refer to the following sources for additional information and for product and software updates.

1. **ASUS Websites**

   The ASUS websites worldwide provide updated information on ASUS hardware and software products. The ASUS websites are listed in the ASUS Contact Information on the inside front cover of this manual.

2. **Optional Documentation**

   Your product package may include optional documentation, such as warranty flyers, that may have been added by your dealer. These documents are not part of the standard package.

1.   ASUS Control Panel

The ASUS Control Panel is a program that allows you to adjust certain features on your computer environment like the desktop color, screen resolution and refresh rates.

1.1   NVIDIA® graphics card series

After installing the display drivers, locate the **ASUS Control Panel icon** on the Windows taskbar. The ASUS Control Panel contains a menu of shortcuts for commonly used tasks and utilities.

To launch the ASUS Control Panel, click the **ASUS Control Panel icon** on the Windows taskbar.

Windows Taskbar

ASUS Control Panel icon

ASUS Control Panel icon

1
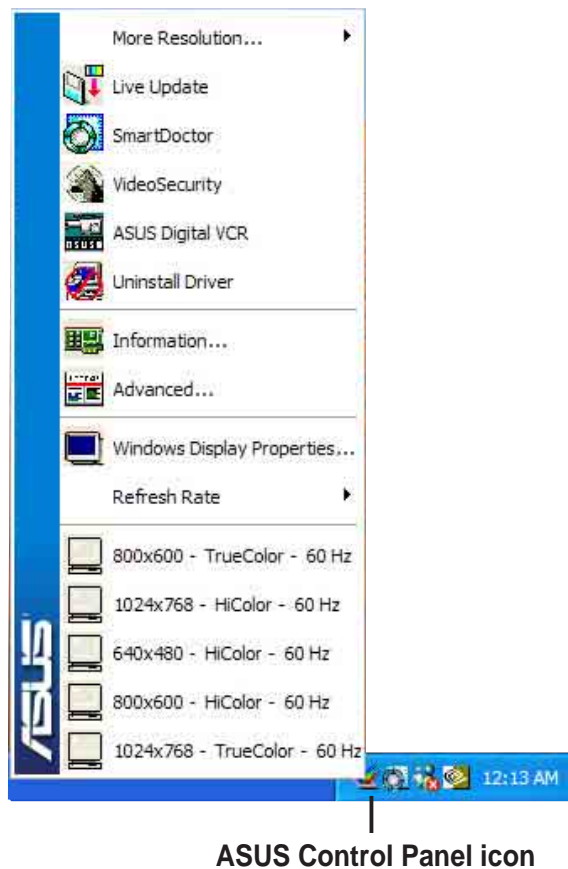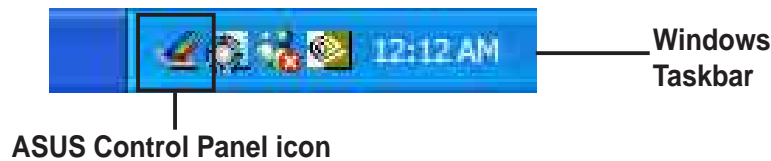
1.1.1 Setting screen resolution

The ASUS Control panel menu includes a list of shortcuts for easy screen resolution setting.

To change the screen resolution:

1. From the ASUS Control Panel menu, click one of the available screen resolutions.

Screen resolution setting shortcut

ASUS Control Panel icon
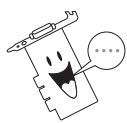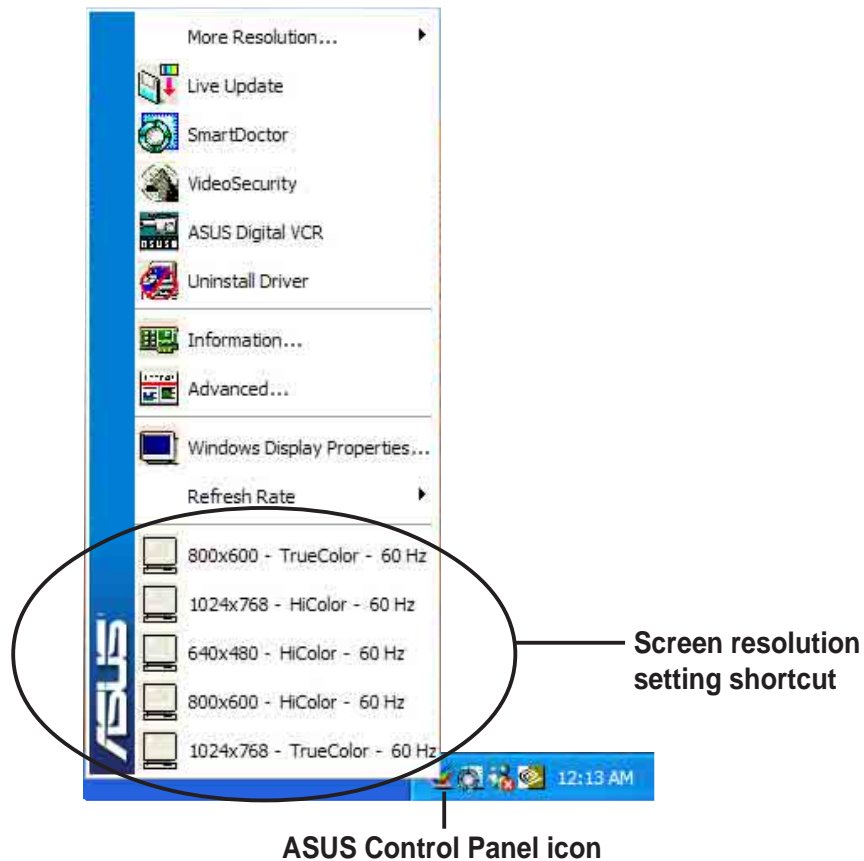
> Your computer screen may flicker while adjusting to the new setting.

2. When prompted, click **OK** to apply settings or **Cancel** to abort.
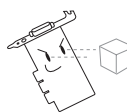
> The setting does not take effect if the progress bar elapses.

1.1.2 Refresh Rate

This item changes the refresh rate of the current screen resolution. A refresh rate is the number of times a display image is repainted or redrawn per second. The refresh rate is expressed in Hertz (Hz), for example, a refresh rate of 75Hz means the image is refreshed 75 times per second.

> Make sure your monitor supports the refresh rate you choose. Selecting a refresh rate beyond your monitor's specification may damage it. Press **ESC** to restore your original settings.

To change the refresh rate:

1. From the ASUS control panel menu, click **Refresh Rate** and select a setting from the list.
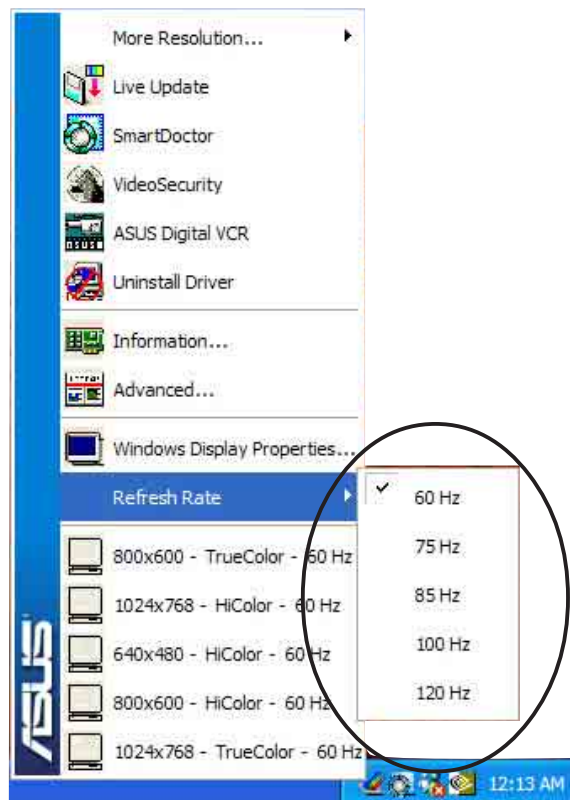
2. When prompted, click **OK** to apply settings or **Cancel** to abort.
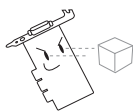
> The setting does not take effect if the progress bar elapses.

1.1.3 Windows Display Properties

This item runs the Windows Display Properties dialog box that allows you to:

- change the Windows theme
- enhance the Windows desktop
- select a screen saver
- adjust the monitor power settings
- change the Windows appearance
- adjust screen resolution

To launch the Windows Display Properties dialog box, click the **Windows Display Properties** menu item from the ASUS Control Panel.
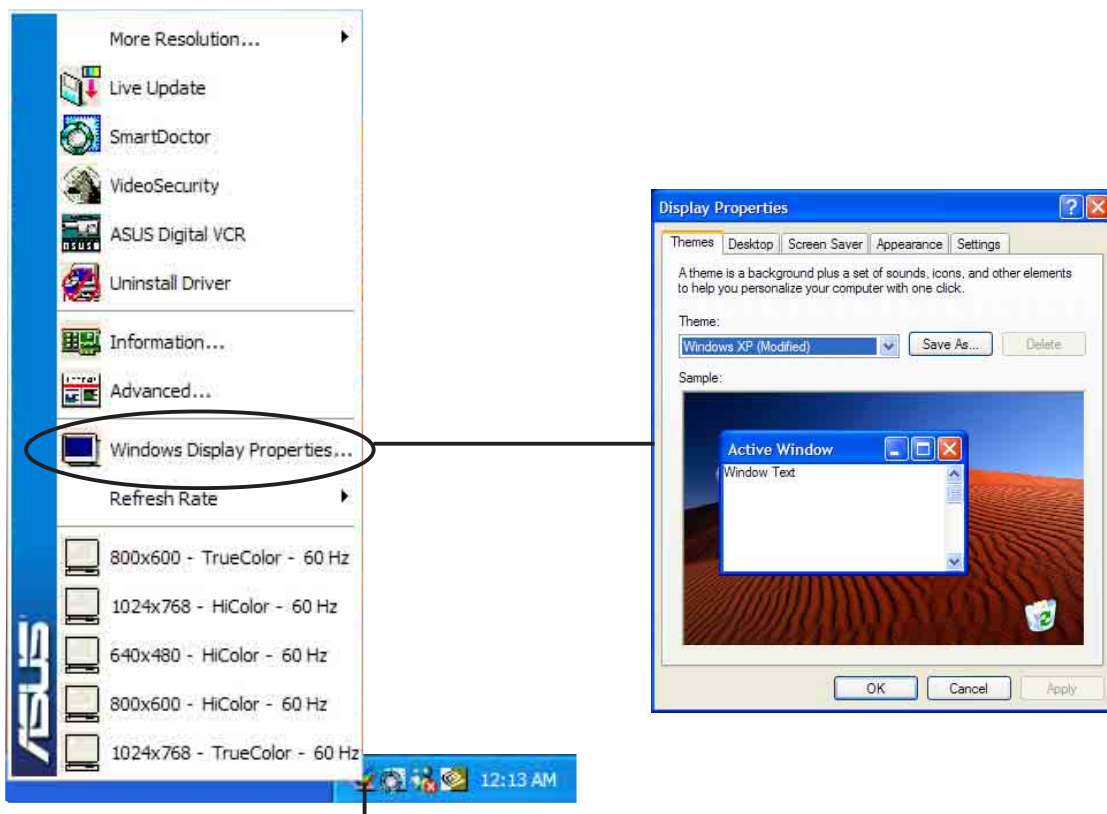
ASUS Control Panel icon

1.1.4 Advanced

This menu allows you to enable or disable the ASUS OSD (On-Screen Display) feature, set the OSD hot keys and display the ASUS Control Panel icon on the Windows taskbar.

To launch the Advanced options dialog box, click the **Advanced...** menu item from the ASUS Control Panel.
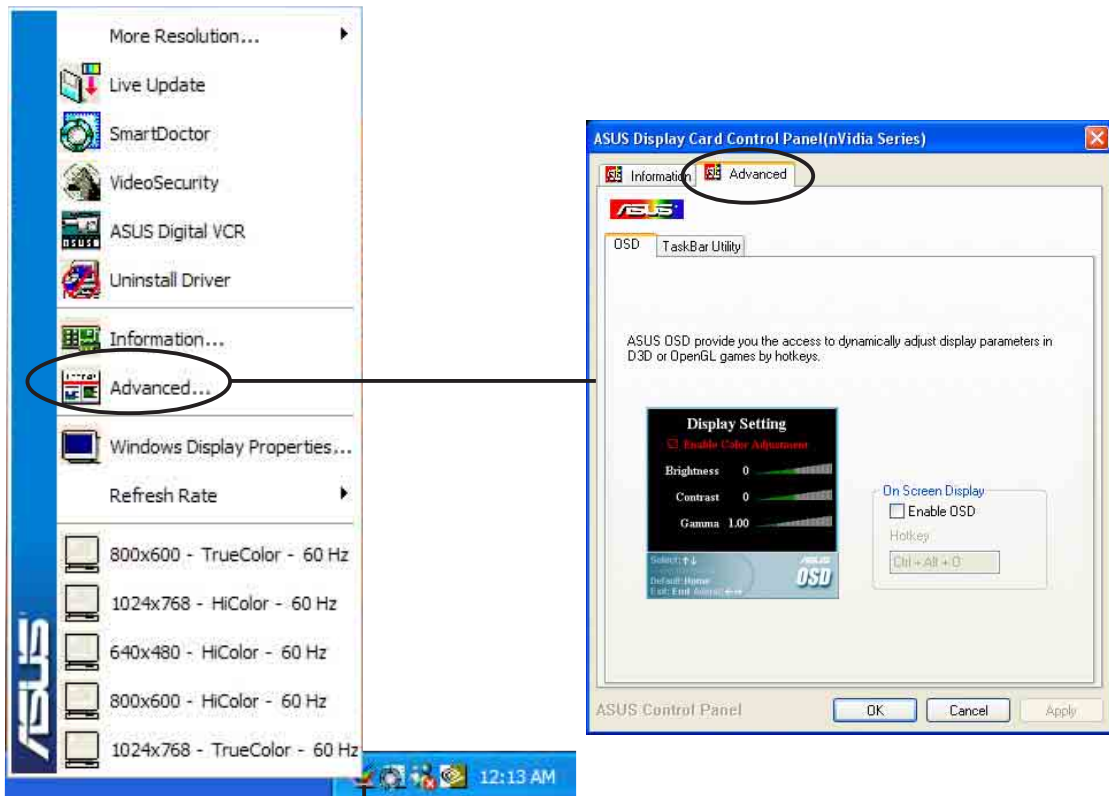
ASUS Control Panel icon

OSD (On-Screen Display)

The On-Screen Display feature allows you to adjust the display settings while you play Direct3D or OpenGL 3D games.

To set the On-Screen Display parameters:

1. From the ASUS Display Card Control Panel (NVIDIA Series) dialog box, select the **Advanced** tab.

2. Click the **OSD** tab to display various parameters for the On-Screen Display feature.

3. Click the **Enable OSD** check box.

4. If you want to define a new set of hot keys for On-Screen Display, click the **Hotkey** text box.
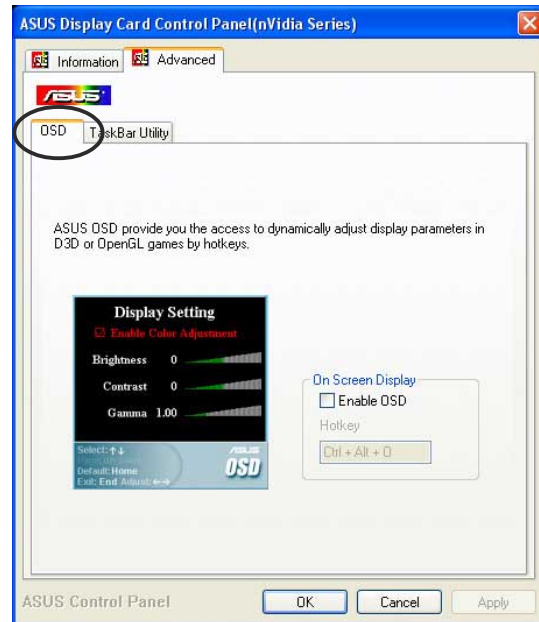
5. Select a hot key combination. For example: to define the hot key combination **Ctrl +Alt + D**, having placed the cursor in the box, press **<D>**.
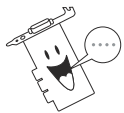
- The **Hotkey** text box is activated only when you enable OSD.

- The **Ctrl** and **Alt** keys are default hot keys to be combined with any key, except for the following: **Esc**, **Del, Pause** or **Break, Enter** or **Return** key, **Tab**, **Spacebar**, **Print Screen**, or **Backspace** key.

6. Click **Apply** to apply settings or click **OK** to save settings and exit. Click **Cancel** if you want to exit and discard changes.

Taskbar Utility

The Taskbar Utility allows you to conveniently access various features and presets you have configured in the Display Properties directly from the Windows taskbar.

To set the Taskbar utility:

1. From the ASUS Display Card Control Panel (NVIDIA Series) dialog box, select the **Advanced** tab.

2. Click the **TaskBar Utility** tab to display contents.

3. Click the check box to enable or disable the display of the ASUS Control Panel icon in the taskbar.

4. Click **Apply** to apply settings or click **OK** to save settings and exit. Click **Cancel** if you want to exit and discard changes.

1.1.5 Information

The Information dialog box displays important data about your graphics card. It includes links to the ASUS main web site and software download site.

To check your graphics card information:

1. From the ASUS Display Card Control Panel (NVIDIA Series) dialog box, select the **Information** tab.

2. Click **OK** or **Cancel** to exit.

1.2 ATI® Radeon graphics card series

After installing the display drivers, locate the **ASUS Control Panel icon** on the Windows taskbar. The ASUS Control Panel is a menu of shortcuts for the screen resolution and color settings.

To launch the ASUS Control Panel, click the **ASUS Control Panel icon** on the Windows taskbar.

Windows taskbar

ASUS Control Panel icon

No Prompt

16 BPP
✔ 32 BPP

800 x 600
✔ 1024 x 768
1152 x 864
1280 x 768
1280 x 1024
1600 x 1200

ASUS Control Panel icon
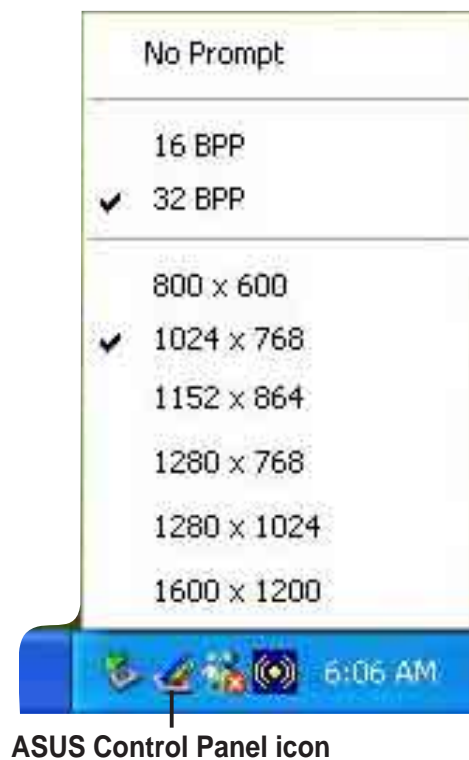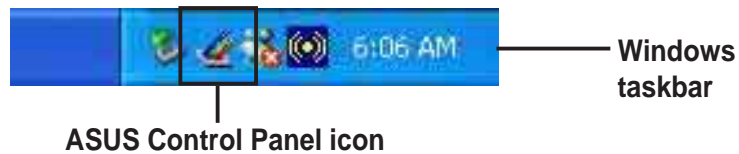
Setting screen resolution

The ASUS Control Panel menu includes shortcuts for easy screen resolution setting.

To change the screen resolution:

1. From the ASUS Control Panel menu, click one of the available screen resolutions.

No Prompt

16 BPP
✔ 32 BPP

Screen color setting shortcut

800 x 600
✔ 1024 x 768
1152 x 864
1280 x 768
1280 x 1024
1600 x 1200

Screen resolution setting shortcut

6:06 AM

ASUS Control Panel icon
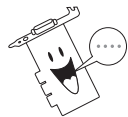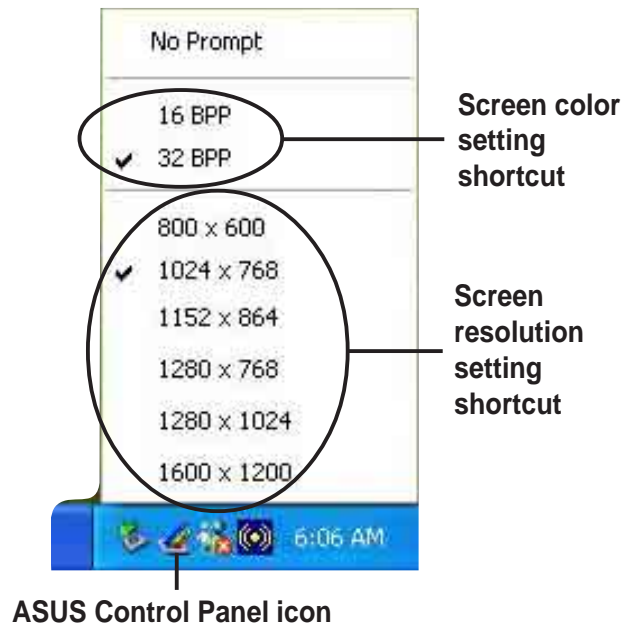
> Your computer screen may flicker while adjusting to the new setting.

2. When the Change Display Settings dialog box appears, click the **Refresh Rate** list box to select refresh rate.

Change Display Settings

You have selected a resolution of

1280 x 768, 32 bpp

Refresh Rates: 60 Hz

Apply

Cancel

3. Click **Apply** to effect your selected display settings or **Cancel** to abort.

4. When prompted, click **Yes** to apply settings or **No** to abort.

Confirm Settings

You have resized your desktop. Do you want to keep these settings?

Reverting in 7 seconds

Yes

No
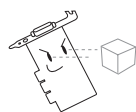
> The setting does not take effect if the timer elapses.

2.   ASUS VideoSecurity

The ASUS VideoSecurity is a powerful security utility that detects any change in a specified surveillance region. Using video capture devices, video snapshots are captured automatically when there is a deviation in the user-defined surveillance region. The utility can also execute a specific program or send a warning message to the user via email or phone.

2.1   Limitations

Differences in hardware sensitivity can affect the consistency of the ASUS VideoSecurity utility in detecting a surveillance region.

Important notes

- Temperature changes can distort the captured image of some Charge-Coupled Device (CCD) cameras.

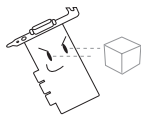- A similar object surface and background can result in a false scan.

- A USB camera cannot capture fast moving objects clearly.

- ASUS VideoSecurity can only process the following pixel formats: UYVY, YUY2, and I420. Use a video capture device that supports these formats.

- Make sure to install the Windows Driver Model (WDM) capture driver.

- If you want to use the email warning feature, make sure you have an Internet connection.

- If you want to use the phone call warning feature, make sure a voice modem and telephone line are available.

2.2 Launching ASUS VideoSecurity

To launch ASUS VideoSecurity:

Click the **Start** button then select **All Programs -> ASUS -> ASUS VideoSecurity -> ASUS VideoSecurity** to display the following menu.

Status —
Video Format —
Setup —
Detect Region —
Start / Stop —

— Video Dimension
— Video Source
— Video Source
— Show History
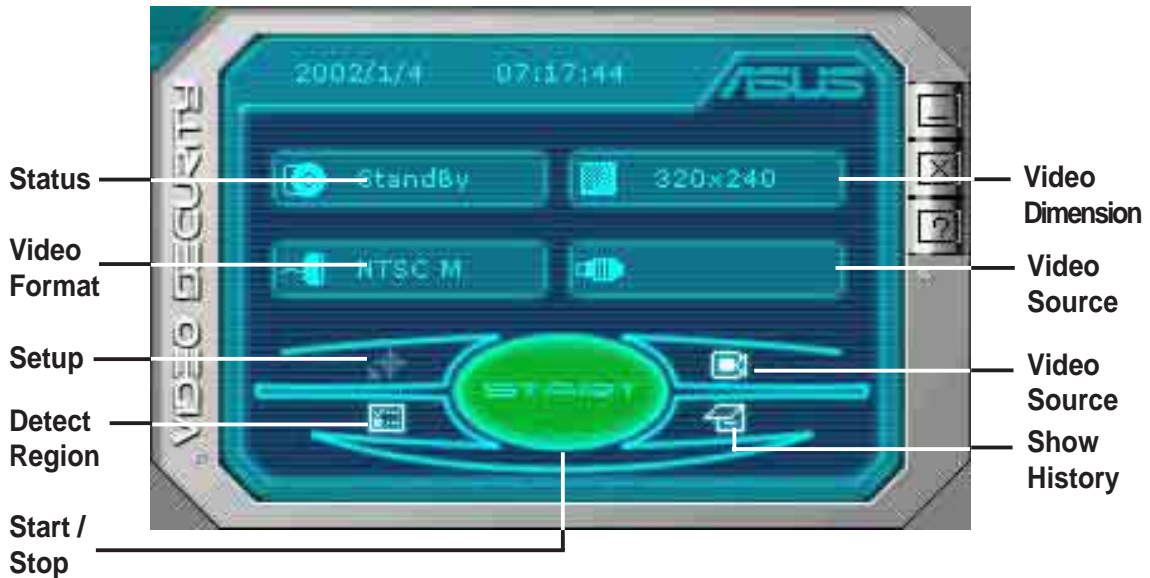
Command buttons

Start/Stop - starts or stops the VideoSecurity watchdog detection.

Setup - launches the ASUS VideoSecurity setup window (wsetup.exe). Refer to section "2.3 Features setup" for more information.

Video Source - allows you to select a video source. Click the button and select video source from the pop-up list.

Detect Region - allows you to define a surveillance region on the video window for detection. To detect a region, click this button then drag the mouse to the part of the screen that you wish to set as a surveillance region.

Detect region —

Hide History - displays or hides the history panel, which contains a list of information recorded when a motion is detected in the surveillance region.

A. Click the **Explore** button to search other recorded files in your hard disk.

B. Click the **History folder** list box to select other folders containing recorded files.

C. Click the **Delete All** button to delete all recorded conditions in the current folder.

D. Click the **Image or video** image to preview recorded image or video.

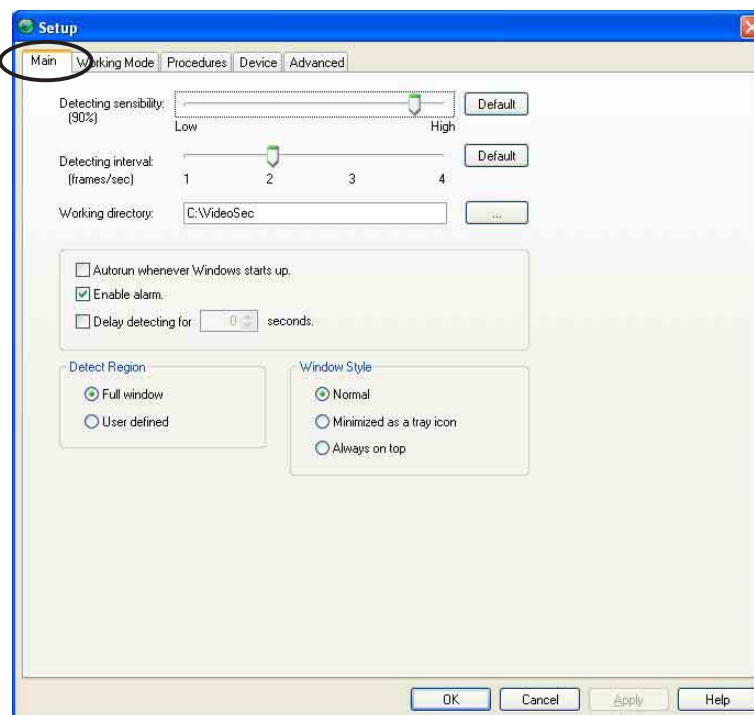E. Click the **Delete** button to delete recorded condition.

2.3 Features setup

To display the ASUS VideoSecurity setup window, click the **Setup** button from the ASUS VideoSecurity menu.

2.3.1 Main

To modify the Main setup options:

1. Click the **Main** tab from the setup dialog box.

2. Move the slider to adjust the **Detecting sensibility** parameter, which sets the receptibility of ASUS VideoSecurity to environment changes.
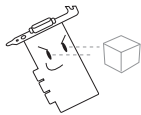
1. Temperature and lighting may affect monitoring.

2. The quality of the video capture device is also very important in setting the sensibility.

3. For optimum performance, test different values to fine-tune this parameter or click the **Default** button to set pre-assigned values based on normal light and temperature conditions.

3. Move the slider to select **detecting interval**. The interval (frame/sec) or scan rate has four configuration options: 1 frame/sec, 2 frames/sec, 3 frames/sec and 4 frames/sec.
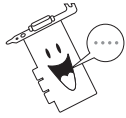
> 1. Set to a higher scan rate for a more accurate detection.
>
> 2. The **Default** button sets the parameter to its recommended setting.

4. Click the **Working directory** button to set the working directory.

    The default working directory is **C:\VideoSec**. Everytime you launch ASUS VideoSecurity, a new folder is created here. The folder filename indicates the current time and date the application was launched. For example, "2003.10.26_02.10.10" means that ASUS VideoSecurity was launched on October 26, 2003 at 2:10:10 AM.

> Do not change the working directory name while ASUS VideoSecurity is running. Doing so will cause a runtime error!

5. Click the following check boxes for your desired settings:

    *   The **Auto-run whenever Windows starts** check box enables or disables the autorun feature of ASUS VideoSecurity.

    *   The **Enable alarm** check box enables or disables the alarm feature.

    *   The **Delay detecting for XXX seconds** check box enables or disables the delay feature when a motion is detected. Key-in the delay (in seconds) on the field when this item is enabled.

6. Select either **Full Window** or **User Defined** to set the detect region.

7. Set your desired Windows display style.

8. Click **Apply** to apply settings or click **OK** to save settings and exit. Click **Cancel** if you want to exit and discard changes. Click **Help** to launch the ASUS VideoSecurity on-line help.

2.3.2 Working Mode

To modify the working mode settings:

1. Click the **Working Mode** tab from the ASUS VideoSecurity setup dialog box.
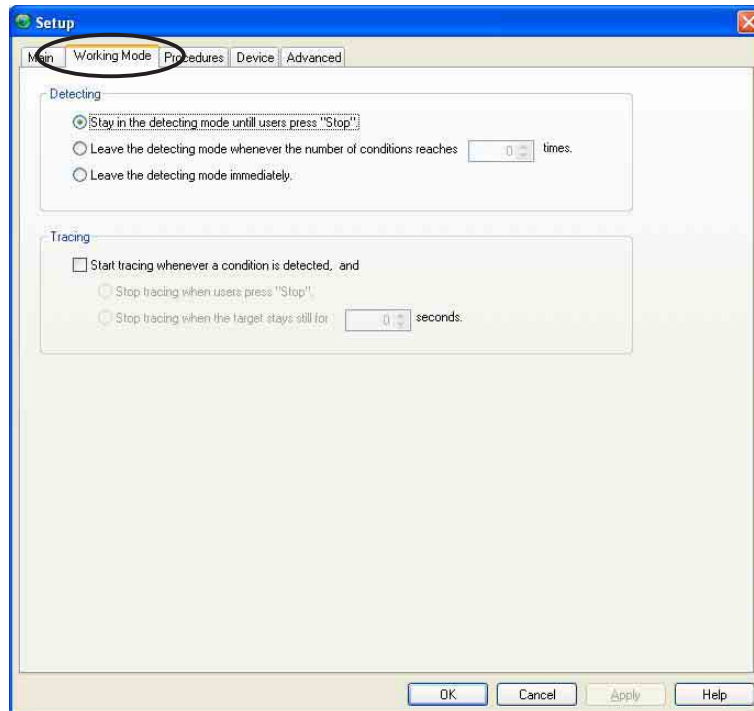
2. Click one of the option buttons to set the detecting mode.

3. Click the **Start tracing whenever a condition is detected** check box to enable the function. Set the other tracing options when available.

4. Click **Apply** to apply settings or click **OK** to save settings and exit. Click **Cancel** if you want to exit and discard changes. Click **Help** to launch the ASUS VideoSecurity on-line help.

2.3.3 Procedures

To modify the procedures setting:

1. Click the **Procedures** tab from the setup dialog box.
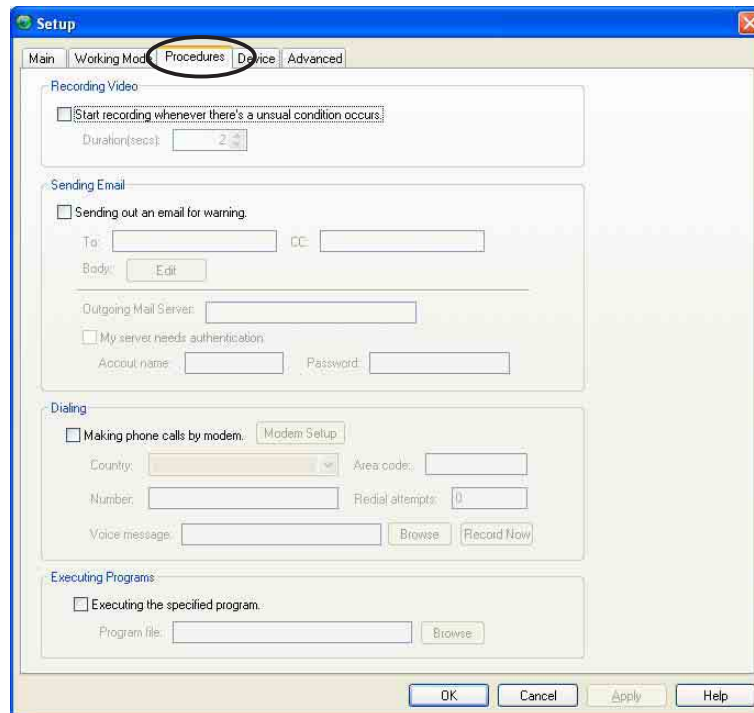
2. Click the **Start recording when an unusual condition occurs** check box to enable this feature. Set the recording duration (in seconds) when enabled.

3. Click the **Send out an email as warning** check box to enable or disable this feature. When checked, it requires you to key-in the email address of the recipient, edit the body of the email and set the Simple Mail Transfer Protocol (SMTP) parameters.

   • **Email Address** - refers to the electronic mail address of the main addressee of the note when the VideoSecurity watchdog detects a motion in the surveillance region.

   • **CC** - the recipient of a copy of the note sent to the main addressee.

   • **Body** - allows you to key-in the content of the note to the main addressee. Press the **Edit** button to key-in your notes. Click **OK** to save the note or **Cancel** to abort.

- **SMTP Mail Server Setup** - contains the parameters and protocols necessary to send your email.


Key-in the **Outgoing Mail Server-SMTP** server IP address or domain name; for example, 168.187.2.22 or mail.company.com.

The **My server requires authentication** check box allows you to use this feature. When enabled, input your User ID and password.

The **Remember my password** check box saves an encrypted copy of your user ID and password that appears as default everytime you execute this setup.

Click **OK** to save the configuration or **Cancel** to abort.

4. Click the **Making phone calls by modem** check box to enable this handling procedure. Set the following fields when enabled.

- **Area code** - the telephone area code of the location of the recipient

- **Country code** - the telephone country code of the recipient

- **Number** - the telephone number of the recipient

- **Redial Attempts** - the number of redials you want if the connecting line is busy

- **Model setup** - launches the ASUS Phone Dialer that allows you to configure your modem connection

- **Record Now** - this button launches the Windows sound recorder to enable you to record, edit, mix and save sound files in wave (.wav) format. The wave file created is sent to the recipient when a warning phone call is made
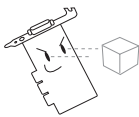
> When recording wave files, make sure that the file format has 8kHz of sample rate, 16bit sample size and 1 channel. The default .wav file name is "warning.wav".

- **Voice message** - this field contains the location of the wave file you want to send when a warning phone call is made. Make sure that the wave file exists in the folder.

5. Click the **Executing the specified program** check box to enable this handling procedure. When enabled, specify the program path and filename to execute when a condition is detected.

6. Click **Apply** to apply settings or click **OK** to save settings and exit. Click **Cancel** if you want to exit and discard changes. Click **Help** to launch the ASUS VideoSecurity on-line help.

2.3.4 Device

To select a scan device or adjust color settings:

1. Click the **Device** tab from the ASUS VideoSecurity setup dialog box.
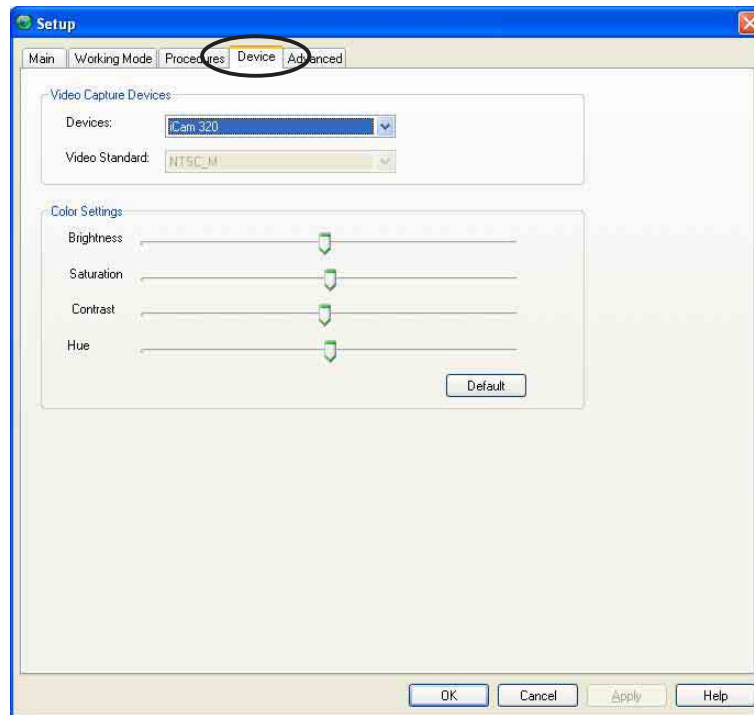

2. Click the **Devices** combo list box to select video capture device.

3. Click the **Video Standard** combo list box to set a video standard.

4. Move the slider of each respective parameter to adjust the brightness, saturation, contrast or color hue.

5. To restore the recommended values, click the **Default** button.

6. Click **Apply** to apply settings or click **OK** to save settings and exit. Click **Cancel** if you want to exit and discard changes. Click **Help** to launch the ASUS VideoSecurity on-line help.

2.3.5 Advanced

To configure the Hyper-Text Transfer Protocol (HTTP) server parameters:

1. Click the **Advanced** tab from the ASUS VideoSecurity setup page.
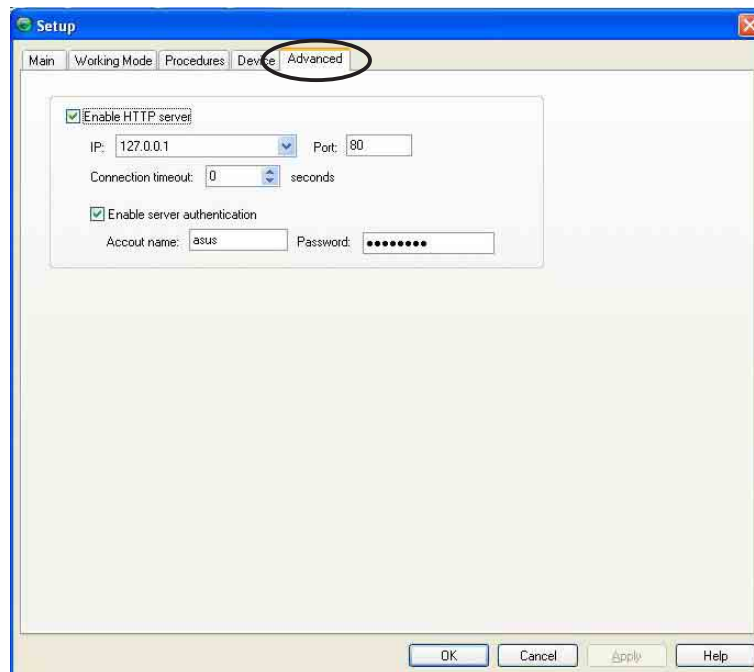
2. Click the **Enable HTTP Server** check box to enable or disable the use of the HTTP Server. When enabled, key-in your Internet Protocol (IP) address, Port and Connection timeout (in seconds.)

3. Click the **Enabled server authentication** check box to enable or disable the server authentication feature. When enabled, key-in your account name and password.

4. Click **Apply** to apply settings or click **OK** to save settings and exit. Click **Cancel** if you want to exit and discard changes. Click **Help** to launch the ASUS VideoSecurity online help.

3. ASUS GameFace

ASUS GameFace is a real-time audio/video communication feature that enables point-to-point video conferencing functions and online gaming to take place at the same time.
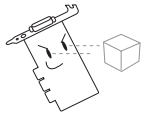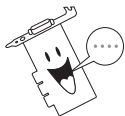
> Make sure to enable the On-Screen Display (OSD) feature before using ASUS GameFace. See section "3.4 GameFace settings" for details.

3.1 Launching ASUS GameFace

To launch ASUS GameFace:

Click the **Start** button. Select **All Programs->ASUS->ASUS GameFace->ASUS GameFace**.

> ASUS GameFace automatically detects the connected audio/video WDM capture device upon start-up.

3.2 Setting Local playback mode

To start Local playback mode:

From the GameFace menu, click **Call** then select Local Play/Stop or click the **Play/Stop** button on the GameFace dialog box.
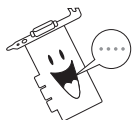
Play/Stop button

3.3 Setting Network playback mode

This section describes how you can connect , accept or terminate calls from a remote computer.

3.3.1 Connecting to a remote computer

To connect to a remote computer:

1. Key-in the computer name (Local Area Network) or IP Address in the combo box.

2. Select **Call** from the menu then click **New Call** or click the **Make a Call** button.

> GameFace prompts a message if the remote computer accepts the call.

Make a Call button

End Call button

3.3.2 Accepting a call

To accept an incoming call:

1. Launch ASUS GameFace.

2. The application prompts a message box on an incoming call. Click **Yes** to accept the call.

3.3.3 Terminating a call

To terminate a call:

From the GameFace menu, click **Call** then **End Call** or click the **End Call** button on the GameFace dialog box.

3.4 Tools

3.4.1 Options

To launch the GameFace options dialog box, click **Tool** then **Option**, or click the **Options** button.

Transparency
This item adjusts the opacity of the GameFace On-Screen Display menu. The GameFace OSD menu can be totally opaque or totally transparent with many intermediate gradations.

To adjust the transparency:

1. Move the slider to adjust the transparency.

2. Click **OK** to apply settings or **Cancel** to abort.
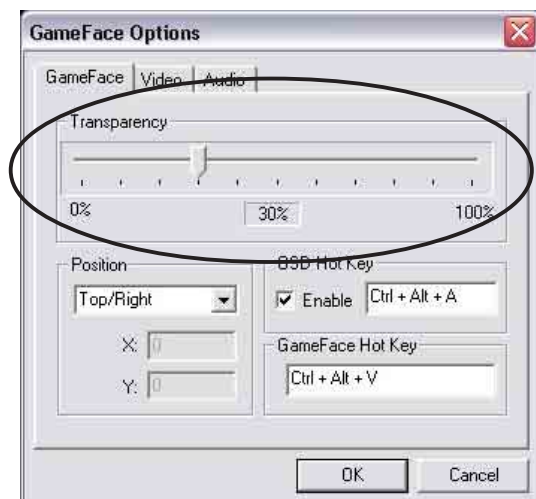
Position

To set the GameFace on-screen position:

1. Click on the combo list box and select from the list.

2. Key-in the X and Y screen coordinates. The values vary depending on your monitor resolution settings.

3. Click **OK** to apply settings or **Cancel** to abort.

On-Screen Display

To set On-Screen Display options:

1. Click the **On-Screen Display** check box to enable or disable OSD feature.

2. If you want to define a new set of hot keys for On-Screen Display, click the **Hotkey** text box.

3. Press the hot key combination of your choice. For example, to define the hot key combination **Ctrl +Alt + D**, place the cursor in the box then press the **<Ctrl>**, **<Alt>** and **<D>** keys simultaneously.

4. Click **OK** to apply the settings or **Cancel** to abort.
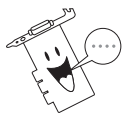
> • The **Hotkey** text box is activated only when the **Enable OSD** check box is checked.
> • The following are not usable as hotkeys: **Esc**, **Del, Pause** or **Break, Enter** or **Return** key, **Tab**, **Spacebar**, **Print Screen**, or **Backspace** key. Press any other key to complete the combination.

3.4.2 Encoder

This item allows you to launch the video-conferencing CODEC used by ASUS GameFace. The item allows you to set the frame size, frame rate, data rate and quality.

To launch the CODEC properties dialog box:

1. From the GameFace menu, click **Tool** then **Encoder**.

2. After making changes, click **Apply** or **OK** to apply settings or **Cancel** to abort.

3.4.3 Info

This displays the GameFace hostname and host IP address.

To launch the Info dialog box:

1. From the GameFace menu, click **Tool** then **Info**.

2. Click **OK** to exit.

3.4.4 TV Tuner
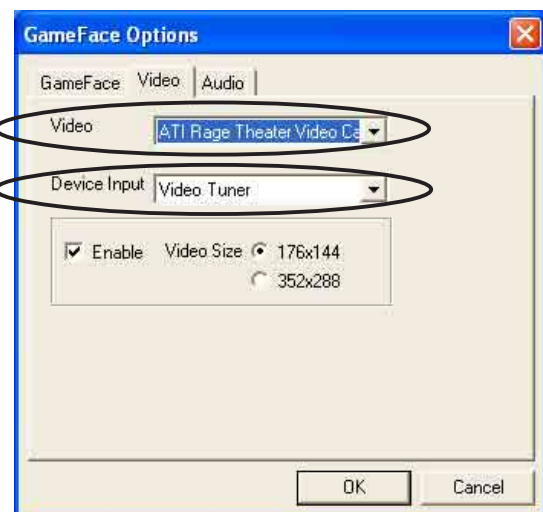
To launch the GameFace TV Tuner dialog box:

1. From the GameFace menu, click **Tool** then **TV Tuner**.

2. The GameFace Options dialog box displays the **Video** tab options.

Setting the GameFace TV Tuner

To set the Video tuner device:

1. Click the **Video** combo list box and select your current video device.

2. Click the **Device Input** combo list box and select **TV Tuner**.

3. Click the check box to enable or disable the video tuner utility.

4. Click **Video Size** option buttons for desired video size.

5. Click **OK** to apply settings or **Cancel** to abort.

Using the GameFace TV Tuner

To watch TV using the GameFace video tuner:

1. From the GameFace menu, click **Call** then select **Local Play/Stop** or click the **Play/Stop** button on the GameFace dialog box.

2. Press the GameFace TV Tuner hotkeys (Default: **Ctrl + T**) to launch the TV Tuner control pad.

3. From the **TV Channel Setting** tab, click the **Number** button then **Submit** to change channels or click **Return** to change channel.

Advanced Setting

The Advanced Settings tab displays information about your TV Tuner card. To display advanced settings:

1. From the GameFace TV Tuner dialog box, select the **Advanced Setting** tab.

2. Click **OK** or **Cancel** to exit.

3.4.5 Address Book

To launch the GameFace Address book:

From the GameFace menu, click **Tool** then **Address Book**.
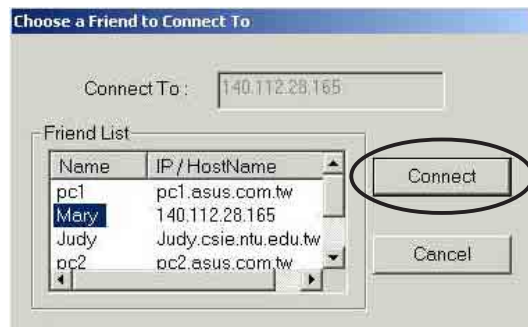
Using the Address Book
To use the GameFace address book:

1. Make sure that the **IP Address** combo list box is empty.

2. Select **Call** from the menu then click **New Call** or click the **Make a Call** button.

3. GameFace prompts a dialog box.

4. Select a name from the list then click **Connect**.

Setting the Address Book
To change the GameFace address book settings:

1. From the GameFace menu, click **Tool** then **Address Book**. A dialog box appears.

2. Click **New** to add a new name and IP address or Host name on the list.

3. Click **Delete** if you want to remove a name from the list.

4. Click **Save/Exit** to save new entries and exit.

5. Click **Cancel** if you want to exit without saving data.
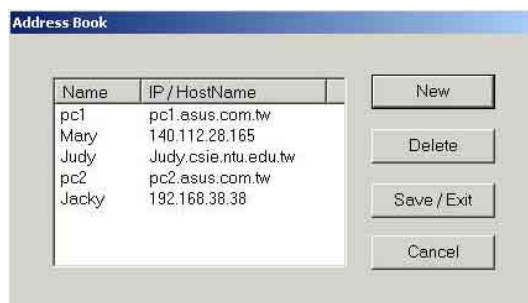
3.5 Using GameFace

To use ASUS GameFace:

1. Launch your game.

2. After entering full-screen mode, press the defined hot key (default is **Ctrl+Alt+V**) to activate GameFace.

3. Press the On-Screen Display hot key to show the OSD menu.

4. Use the arrow keys to select the GameFace application page and to adjust the Transparency, Position X coordinate, Position Y coordinate, or OSD size.

3.6　Using the GameFace TV Tuner

To use the ASUS GameFace TV tuner:

1. Launch your game.

2. After entering full-screen mode, press the defined hot keys (default is **Ctrl+Alt+V**) to activate GameFace.

3. Press the On-Screen Display hot keys to show the OSD menu.

4. Press the GameFace TV Tuner hot keys (default is **Ctrl+T**) to display TV Tuner monitor.

5. Use the arrow keys to adjust the Transparency, Position X coordinate, Position Y coordinate, or OSD size.

4. ASUS Digital VCR

With ASUS Digital VCR, you can watch and record TV programs from your TV tuner and enjoy all kinds of media such as digital camcorders, VCRs, and PC camera. Other features include "Channel Surfing," which allows you to watch a snapshot of 16 channels at one time while refreshing itself continually.

4.1 Launching ASUS Digital VCR

To launch ASUS Digital VCR, click the **Start** button.
Select **All Programs-> ASUS->ASUS Digital VCR->ASUS Digital VCR**.
The following menu appears.

To switch the application skin, right-click anywhere on the application skin and select your desired skin from the pop-up menu. The application skin image changes but retains all the function of the ASUS Digital VCR, as in the example below.

4.2 Using ASUS Digital VCR

There are two ways to access the ASUS Digital VCR functions. You can use the ASUS Digital VCR panel or right-click on the VCR screen to display the available functions.

Use mouse to resize
the window

4.2.1 ASUS Digital VCR panel

The following labels the various buttons on the Digital VCR panel:
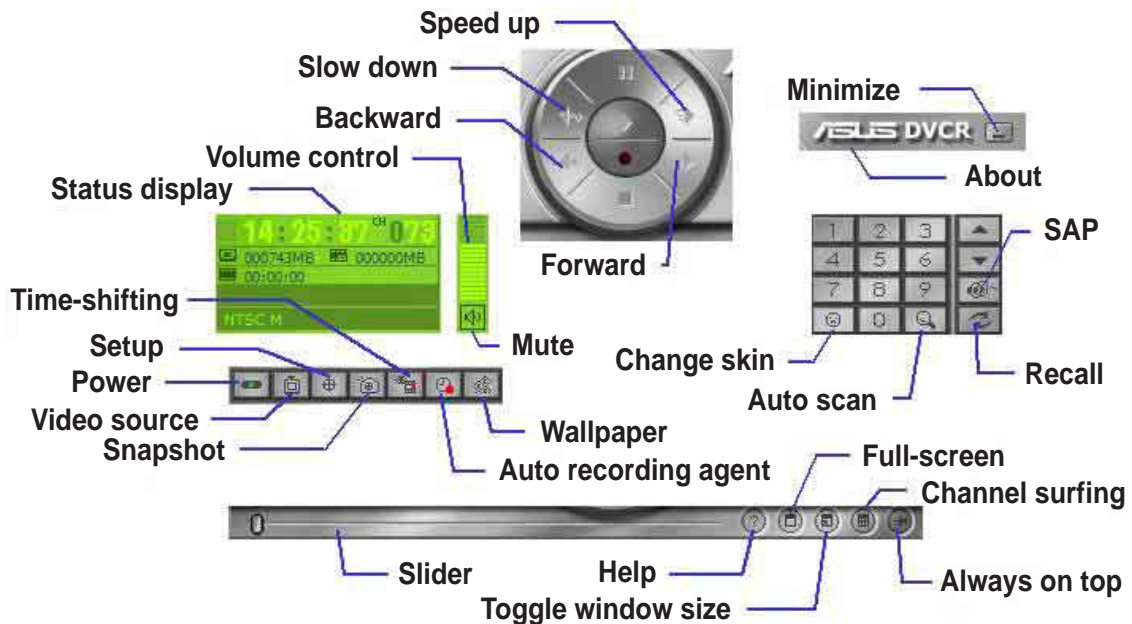
4.2.2 Setting your video source

To set your video source:

1. From the ASUS Digital VCR menu, click the **Setup** button.

2. Select the **Video Source** tab from the ASUS Digital VCR Setup dialog box.

3. Click the **Video Standard** combo list box to select a video standard for your area or territory.

4. Move the slider of each respective item to adjust the brightness, saturation, contrast, and hue for video tuning.

5. To restore the default values, click the **Reset to Default** button.

6. Click **OK** button to save and apply settings or **Cancel** to discard changes.
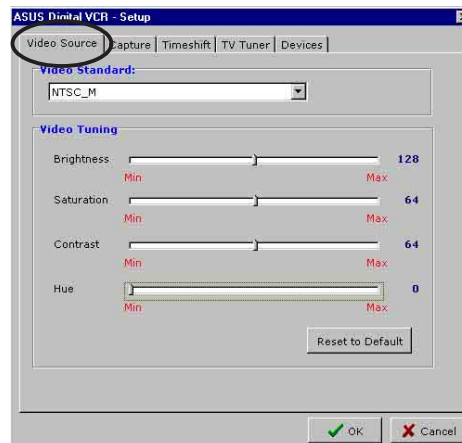
4.2.3 Capture

The **Capture** tab allows you to configure the video capture settings. Select one from the default values that matches your frequently used settings.

To set the Capture parameters:

1. From the ASUS Digital VCR menu, click the **Setup** button.

2. Select the **Capture** tab from the ASUS Digital VCR Setup dialog box.

3. Click the **Record Profiles** combo list box to select record profile format.

4. Click combo list boxes under **Video Capture** group to set **Video Format**, **Image Size** and **Frame Rate**.

5. Click check boxes under **Options** to enable or disable available capture options.

6. Click **OK** button to save and apply settings or **Cancel** to discard changes.
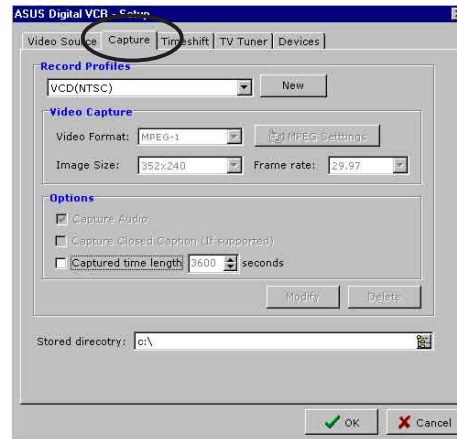
4.2.4 Timeshifting feature

This innovative feature lets you record incoming video feeds through a buffer. For example, if you are watching your favorite TV show on your computer and you have to leave but you do not want to miss the rest of the show, record it with TimeShifting feature. When you come back, you do not have to wait for the recording to finish to watch the recorded TV show (unlike traditional recorders). Click **Play** and playback will start immediately while Digital VCR is still recording in the background.

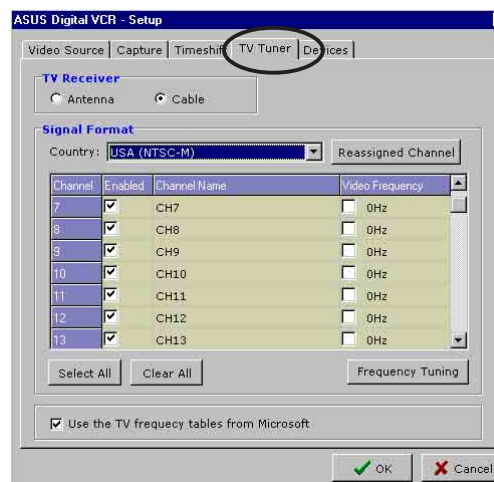To set the TimeShifting feature parameters:

1. From the ASUS Digital VCR menu, click the **Setup** button.

2. Select the **Timeshift** tab from the ASUS Digital VCR Setup dialog box.

3. Click the check box to enable or disable playback options.

4. Click the **OK** button to save and apply settings or **Cancel** to discard changes.
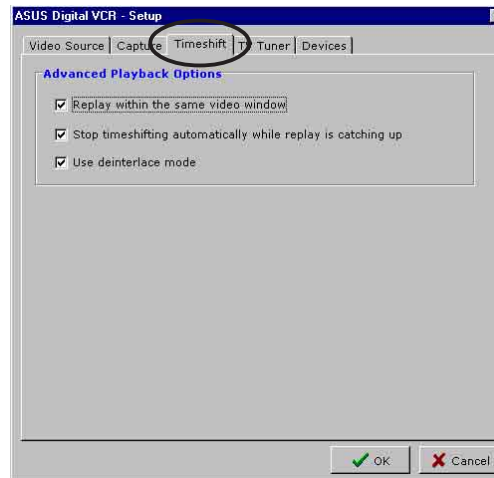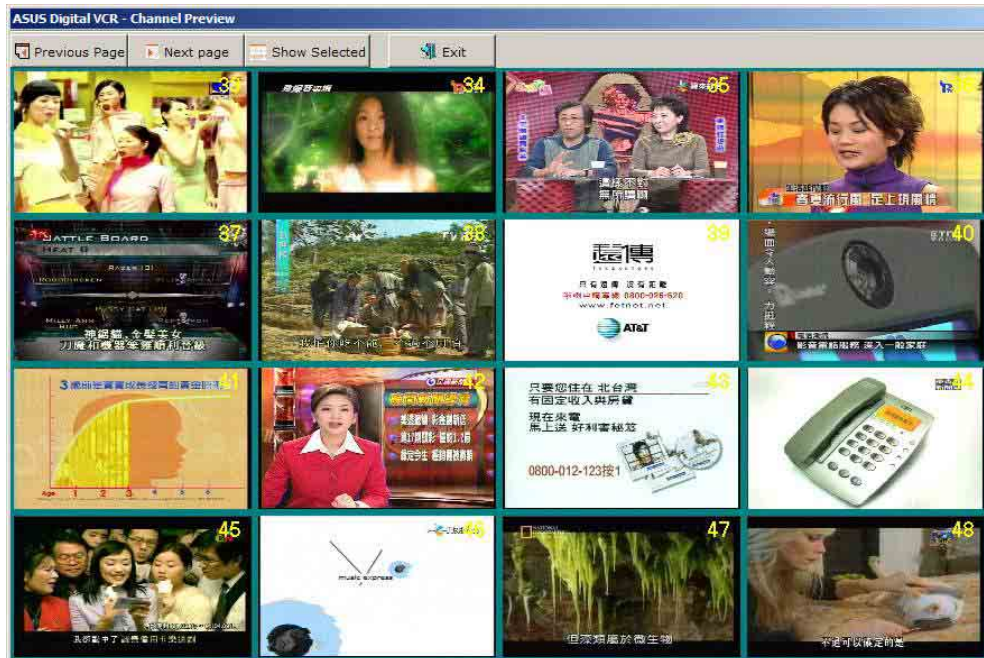
4.2.5 TV Tuner

To set your TV Tuner options:

1. From the ASUS Digital VCR menu, click the **Setup** button.

2. Select the **TV Tuner** tab from the ASUS Digital VCR Setup dialog box.

3. Click one of the option buttons to select a TV receiver source.

4. To set your **Signal Format**, click the combo list box and select your country video format.

5. Click on the check boxes to assign channels.

6. If you want to fine tune your channel signal, click the **Frequency Tuning** button.

7. Click **OK** button to save and apply settings or **Cancel** to discard changes.

If you want to preview a snapshot of the available channels, click the **Channel Surfing** button on the ASUS Digital VCR menu. The Channel Surfing feature simultaneously displays a snapshot of 16 available channels for preview.


4.2.6 Devices

The **Devices** tab allows you to set up your video and audio device. Make sure to install the WDM driver from the support CD to run this feature.

To setup your video and audio device:

1. From the ASUS Digital VCR menu, click the **Setup** button.

2. Select the **Devices** tab from the ASUS Digital VCR Setup dialog box.

3. Click the combo list box to set your video device or audio device.

4. Click **OK** button to save and apply settings or **Cancel** to discard changes.
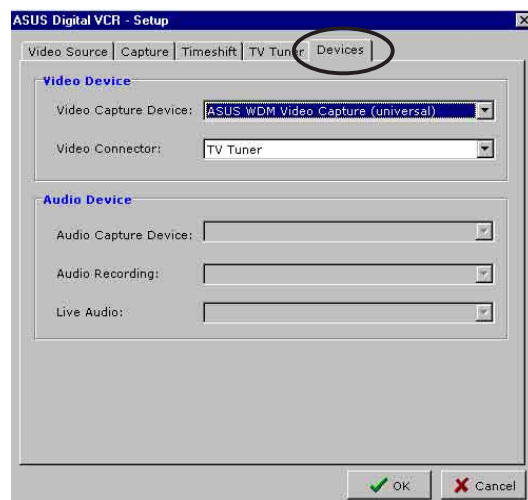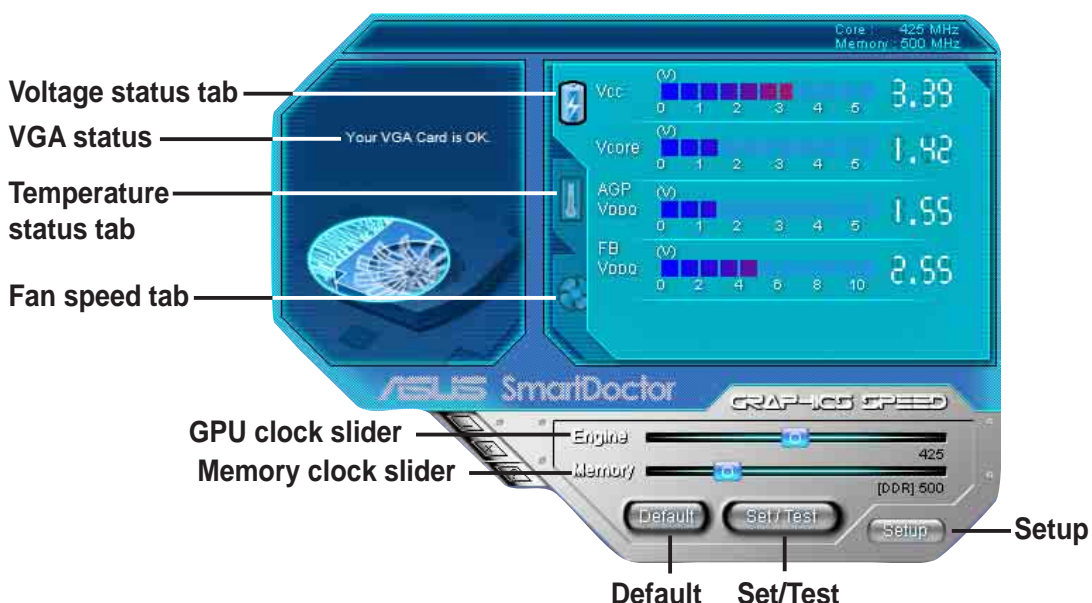
# 5.	ASUS SmartDoctor

ASUS SmartDoctor is designed to monitor the temperature, voltage and fan condition of your graphics card. This utility also smartly cools down your Graphics Processing Unit (GPU) temperature and allows you to adjust the graphics card clock settings.

## 5.1	Functions

*	Monitors graphic chip temperature, fan speed and voltage
*	Notifies user about irregular hardware events, such as temperature overheat, fan malfunction and out-of-safe-range voltage
*	Smartly cools down the graphic chip when its temperature is over the limit
*	Automatically adjusts the fan speed according to the GPU temperature
*	Allows adjustment of monitor values to fit the system requirement
*	Allows manual adjustment of GPU core and memory clock

## 5.2	Launching ASUS SmartDoctor

The ASUS SmartDoctor utility is a memory resident program that is launched everytime you start Windows and remain in the computer memory to check the graphics card status. To access the ASUS SmartDoctor menu and its functions, double-click on the **SmartDoctor icon** found on the Windows taskbar.
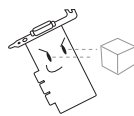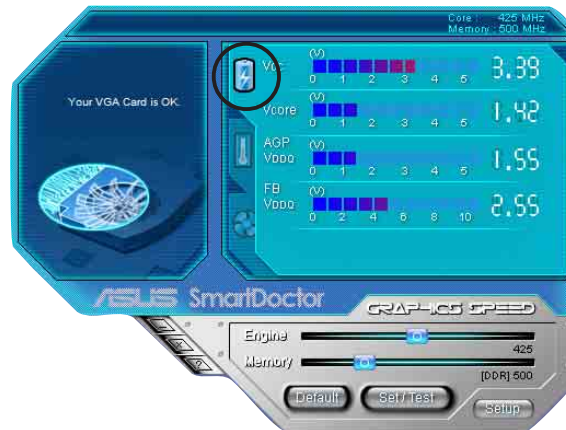

Voltage status tab
VGA status
Temperature status tab
Fan speed tab
GPU clock slider
Memory clock slider
Default   Set/Test
Setup

5.3 Using ASUS SmartDoctor

The utility provides an easy-to-use menu to access its features.

5.3.1 Voltage status

Click the **Voltage status** tab to display the voltage status of your graphics card.

• The AGP bus VDDQ voltage and AGP bus 3.3 voltage should be supplied steadily by your motherboard. Otherwise, your system will crash.
• The FB VDDQ voltage item is grayed or disabled if your graphics card does not support voltage monitoring for this item.

5.3.2 Temperature status

Click the **Temperature status** tab to display the GPU and RAM temperature status of your graphics card.
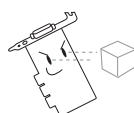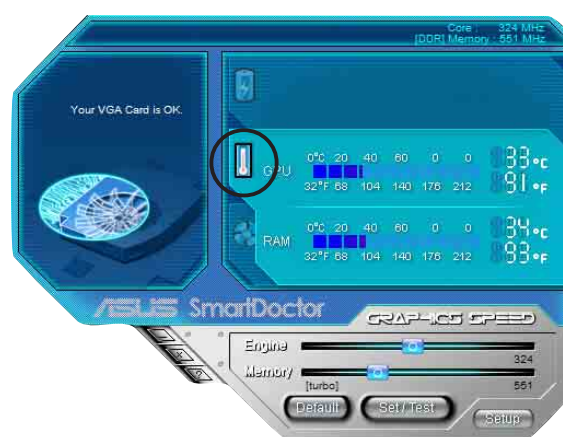
If your graphics card does not support RAM temperature monitoring, the item is grayed or disabled.

5.3.3 Fan speed status

Click the **Fan speed** tab to display the current fan speed of your graphics card.

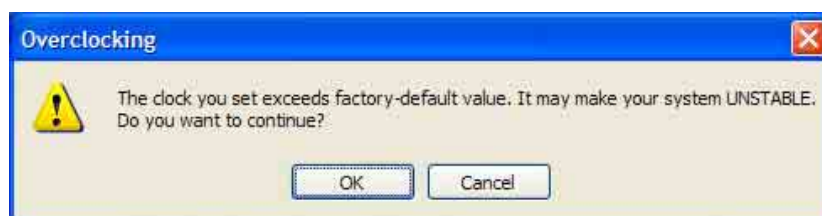### 5.3.4 Engine and memory clock settings

You can manually adjust the graphics card engine (GPU) and memory clock to enhance your graphics card performance.
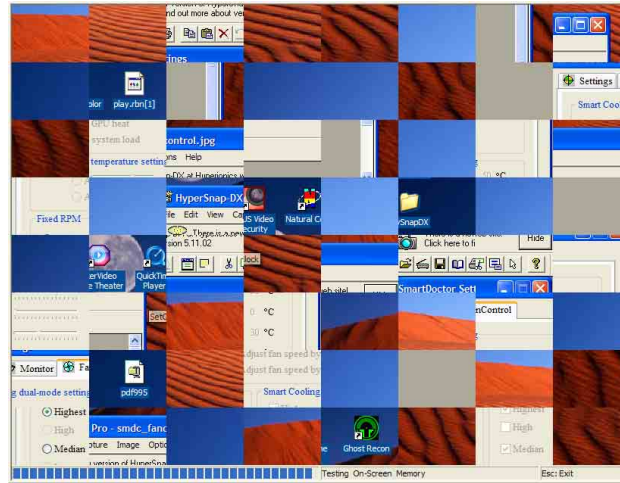
To adjust the engine and memory clock:

1. Move the **Engine** clock slider to adjust the engine clock.
2. Move the **Memory** clock slider to adjust the memory clock.
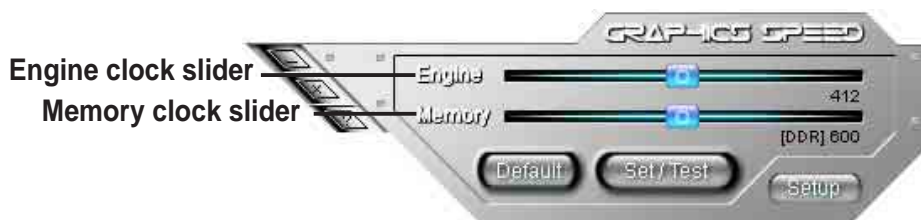
3. SmartDoctor prompts a warning message. Click **OK**.

4. Click **Set/Test** button to test the graphics on-screen memory with the core engine and memory clocks you set. The following screen appears while testing.
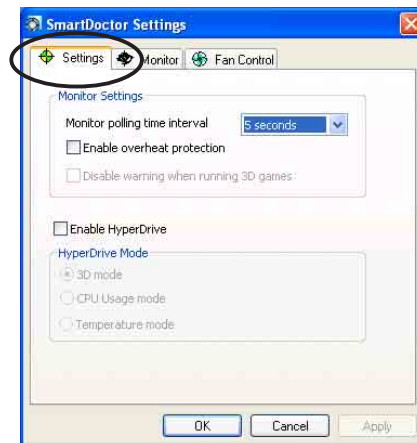

5. If the engine or memory clock test fails, click **Default** to revert to default values.

5.4 Advanced setup features

To launch the SmartDoctor Settings dialog box, click the **Setup** button on the SmartDoctor menu.

5.4.1 Settings

To change the settings, click the **Settings** tab from the SmartDoctor Settings dialog box.


Monitor Settings
To change monitor settings:

1. Click the combo list box to set **Monitoring poll time interval**.

2. Click the check box to enable or disable any of the monitor setting features.

3. Click **Apply** or **OK** to save settings.

ASUS HyperDrive

To activate HyperDrive:

1. Click the **Enable HyperDrive** check box to enable or disable the HyperDrive feature.

2. Click the Option buttons to select the HyperDrive Mode.
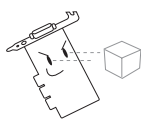
> Make sure to install the **ASUS Enhanced driver** when using the HyperDrive 3D mode.

HyperDrive Modes

1. **3D Game mode** - In 3D Game mode, ASUS SmartDoctor automatically sets the GPU clock to its highest possible value when playing 3D games for better 3D performance. It reverts to its normal GPU core clock after playing 3D games.

2. **CPU Load mode** - When set to this mode, ASUS SmartDoctor dynamically adjusts the GPU core clock depending on the Central Processing Unit (CPU) work load. ASUS SmartDoctor increases the GPU core clock when the CPU is busy and decreases it when your CPU is idle.

3. **GPU Temperature mode** - In Temperature mode, ASUS SmartDoctor smartly adjusts the GPU clock according to its temperature. If the GPU temperature increases, ASUS SmartDoctor automatically decreases the GPU core clock, and vice versa.

5.4.2 Monitor

To change voltage, temperature and fan monitor settings:

1. Click the **Monitor** tab from the SmartDoctor Settings dialog box.
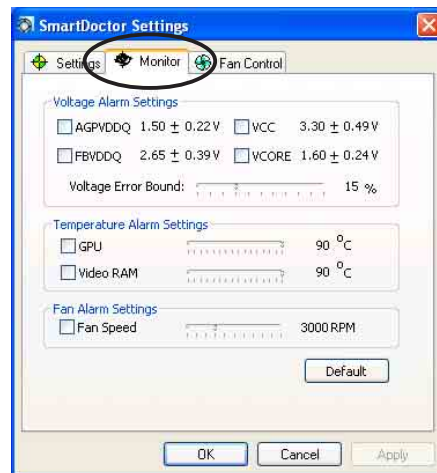

Voltage Alarm Settings
- Click the check box to enable or disable the alarm for AGPVDDQ, VCC, FBVDDQ or VCORE voltages.
- Move the slider to adjust the Voltage Error Bound percentage.

Temperature Alarm Settings
- Click the check box to enable or disable the alarm for the GPU and Video RAM temperature.
- Move the slider to adjust the temperature.

Fan Alarm Settings
- Click the check box to enable or disable the Fan speed alarm.
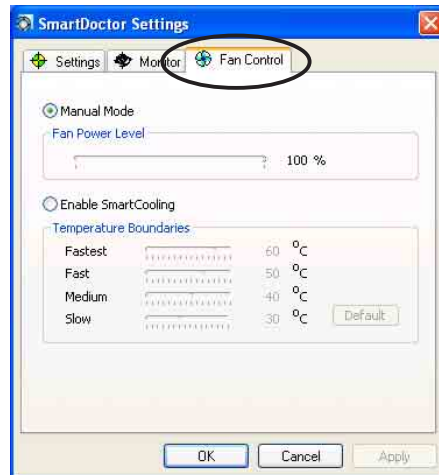- Move the slider to adjust the fan speed.
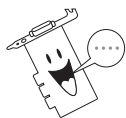
> Click the **Default** button to load optimum values for stable performance.

2. Click **Apply** to apply settings or click **OK** to save settings and exit. Click **Cancel** if you want to exit and discard changes.

5.4.3 Fan Control

To change the fan control settings:

1. Click the **Fan Control** tab from the SmartDoctor Settings dialog box.


2. Click the option buttons to select fan control feature. The fan control has two features: Manual mode and Temperature mode.

    Manual mode - You can manually change the fan speed by adjusting the slider of each temperature mode.

    Temperature mode - SmartDoctor will automatically adjust the fan speed according to the GPU temperature. For example, if the GPU temperature rises over 60 degrees Celsius, SmartDoctor will raise the fan speed to the fastest level to cool the GPU.

3. Move the slider to adjust the temperature for fan speeds.
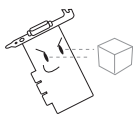
> The **Fan Control** tab is not displayed if your graphics card does not support the Fan Speed Control feature.

4. Click **Apply** to apply settings or click **OK** to save settings and exit. Click **Cancel** if you want to exit and discard changes.

6.   Multi-monitor feature

6.1   ATI® Radeon graphics card series

ASUS Radeon graphics cards include a multi-monitor feature through the ATI® HYDRAVISION™ multiple monitor management software. The ATI® HYDRAVISION™ feature allows you to manage the display of multiple windows or applications across two or more monitors.

6.1.1   Setting secondary display devices

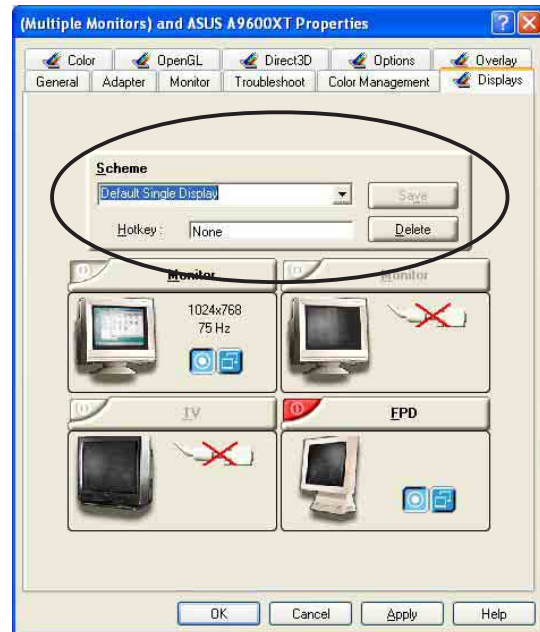To set secondary display devices:

1. Boot your computer.
2. Click the **Start** button then select **Control Panel**.
3. Double-click the **Display** icon on the Control Panel. Select the **Settings** tab.
4. Click the **Advanced** button to display the Properties dialog box.
5. Select the **Displays** tab.
6. Click the **enable/disable** button of the display device you want to use.
7. Click **Apply** to apply settings or click **OK** to save settings and exit. Click **Cancel** if you want to exit and discard changes. Click **Help** to launch the online help.
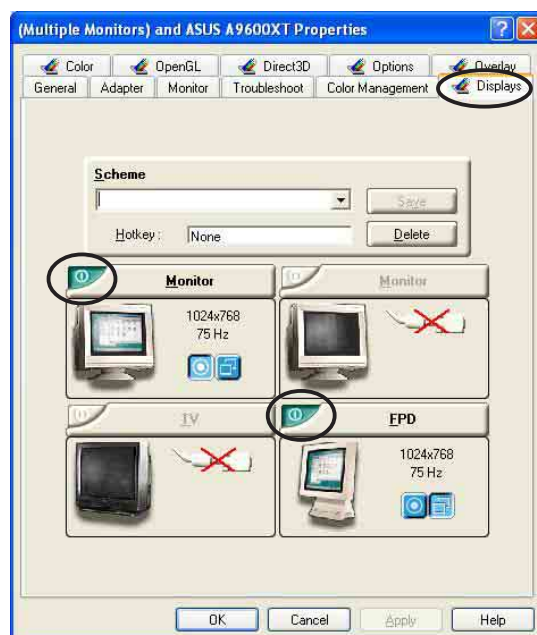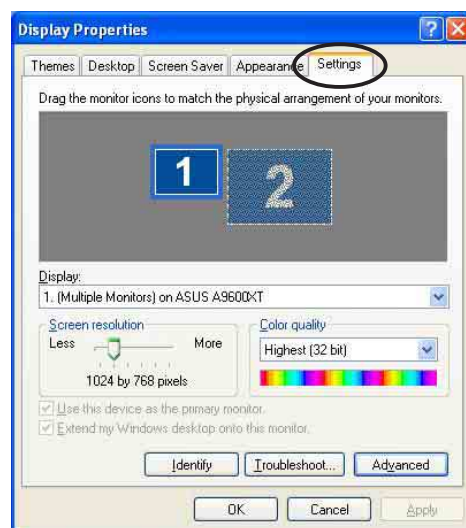
6.1.2 Changing display scheme and hotkey

To change the display scheme and hotkey:

1. Boot your computer.
2. Click the **Start** button then select **Control Panel**.
3. Double-click the **Display** icon in the Control Panel. Select the **Settings** tab.
4. Click the **Advanced** button to display the properties dialog box.
5. Select the **Displays** tab.
6. To change the Scheme, click the combo list box and select from the list.
7. To set hot key, click the **Hotkey** text field and press any key you want as display hot key.
8. Click **Apply** to apply settings or click **OK** to save settings and exit. Click **Cancel** if you want to exit and discard changes. Click **Help** to launch the online help.

6.1.3 Monitor properties
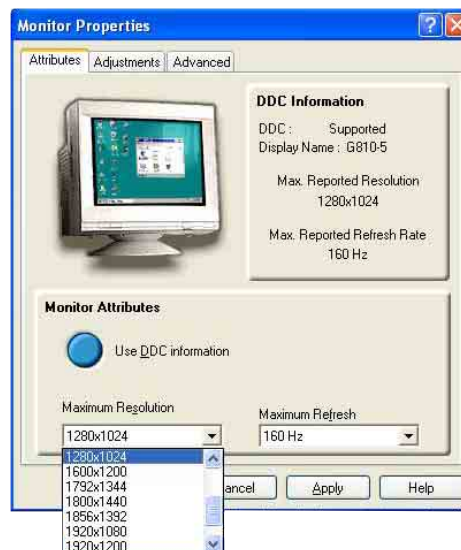
To modify the monitor properties:

1. Boot your computer.
2. Click the **Start** button then select **Control Panel**.
3. Double-click the **Display** icon in the Control Panel. Select the **Settings** tab.
4. Click the **Advanced** button to display the Properties dialog box.
5. Click the button of the **Display Device** you want to modify. For example, .
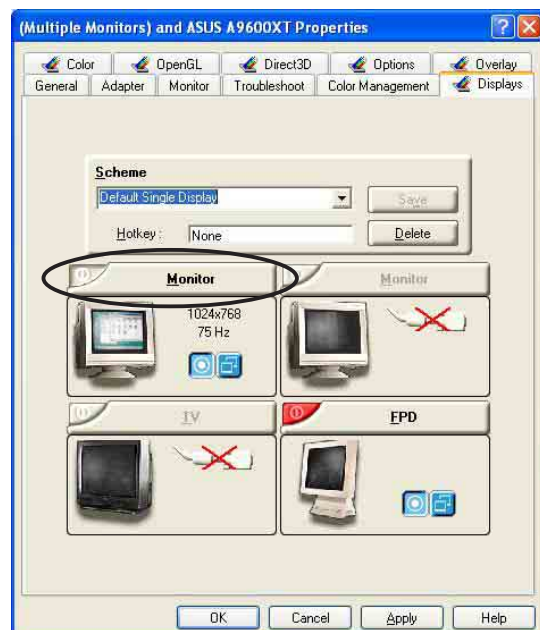
Attributes

To modify the monitor attributes:

1. From the Monitor Properties
dialog box, click the **Attributes**
tab.

- To use the Display Data
Channel (DDC) information,
make sure that the **Use
DDC information** button is
checked.

- To change the **Maximum
Resolution** and **Maximum
Refresh** frequency
manually, uncheck the **Use
DDC information** button.

- To change the **Maximum
Resolution**, click the combo
list box and select desired
resolution from the list.

- To change the **Maximum
Refresh** frequency, click the
combo list box and select
desired frequency from the
list.

2. Click **Apply** to apply settings or
click **OK** to save settings and
exit. Click **Cancel** if you want to
exit and discard changes. Click
Help to launch the online help.

Adjustments

To adjust the screen position and screen size :

1. From the Monitor Properties dialog box, click the **Adjustments** tab.
2. Click the **arrow** button to adjust the screen position.
3. Click the **plus (+)** or **minus (-)** button to adjust the screen size.
4. Click **OK** or **Apply** to save the changes.

Advanced

To adjust synchronization:

1. From the Monitor Properties dialog box, click the **Advanced** tab.
2. Click the **Horizontal, Vertical or Composite** buttons to adjust the synchronization. The monitor may flicker when adjusting the synchronization.
3. Click **Apply** to apply settings or click **OK** to save settings and exit. Click **Cancel** if you want to exit and discard changes. Click **Help** to launch the online help.

# 6.2 NVIDIA® graphics card series

The NVIDIA® nView™ feature allows you to manage the display of multiple windows or applications across two or more monitors.

To change the nView™ settings:

1. Boot your computer.

2. Click the **Start** button then select **Control Panel**.

3. Double-click the **Display** icon on the Control Panel. Select the **Settings** tab.

4. Click the **Advanced** button to display the properties dialog box.
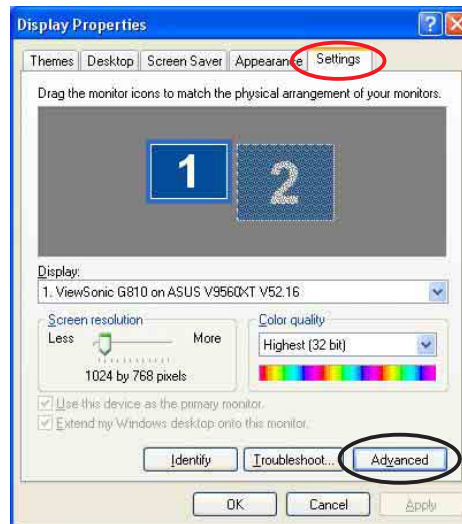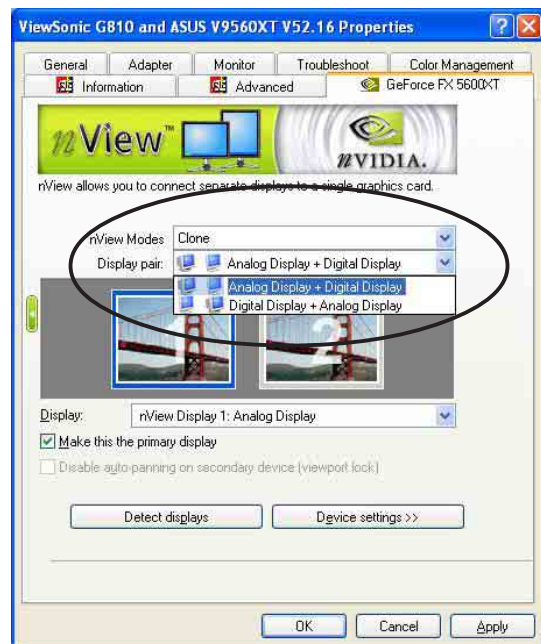
5. Select the tab of your graphics card model name. For example: **GeForce FX5600XT**

6. Click **nView Display Mode** from the side tab menu.
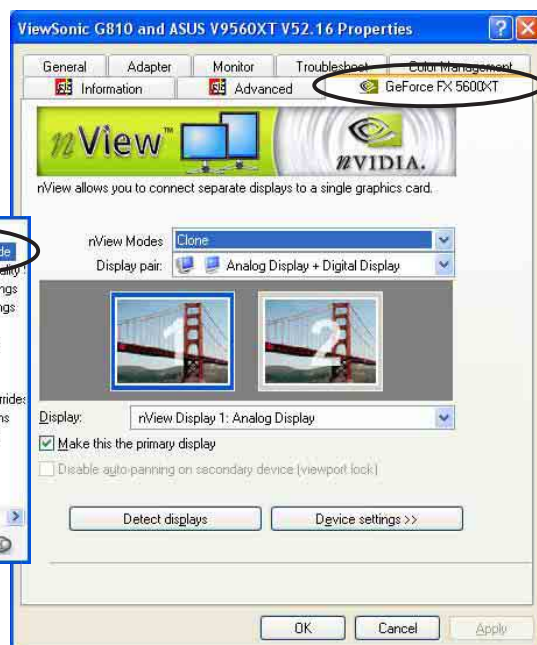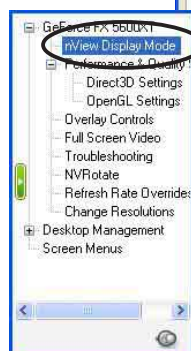
7. Click the **nView Modes** combo list box to select nView mode.
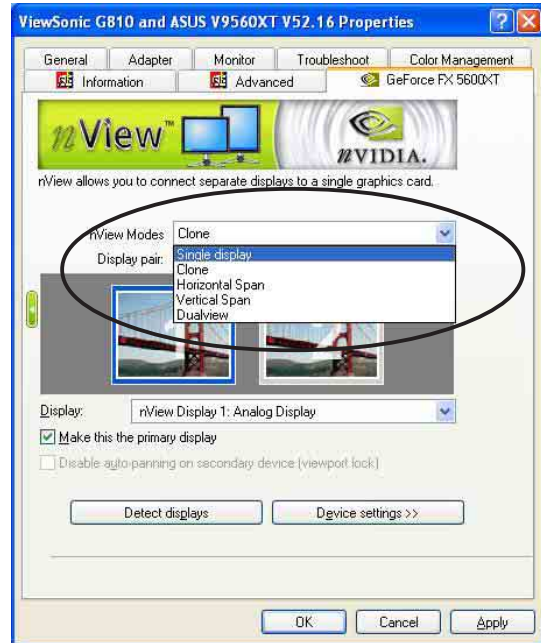
8. Click the **Display pair** combo list box and select your display type setup.

9. Click the labeled monitors or click the **Display** combo list box to select the primary display device.

10. Make sure that the **Make this the primary display** box is checked.

11. Click **Apply** to apply settings or click **OK** to save settings and exit. Click **Cancel** if you want to exit and discard changes.