Graphics Card

Drivers and Utilities

Installation Guide

E1836

First Edition

2005

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Appendix: Basic troubleshooting A-1

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.

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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.

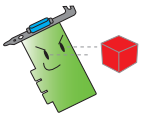
About this guide

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.

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 installation guide.

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. Support CD information

The support CD that came with the VGA card contains useful software and several utility drivers that enhance the video features.

- The screen displays in this manual may not exactly match the display on your screen.
- Some driver and utility items in the support CD apply only to specific ASUS VGA card models.
- You may need administrator rights to install the drivers and utilities. See your Windows® 2000/XP documentation for details.
- The contents of the support CD are subject to change at any time without notice. Visit the ASUS website (www.asus.com) for updates.

To begin using the support CD, simply insert the CD into your CD-ROM drive. The support CD automatically displays the **2D/3D Graphics & Video Accelerator** main menu if autorun is enabled in your computer.

If autorun is NOT enabled in your computer, browse the contents of the support CD to locate the file SETUP.EXE. Double-click the **SETUP.EXE** to run the support CD installation program.

2. VGA drivers

A VGA driver is the software program that makes the device work with your operating system. You can install, update or remove the display driver of your graphics card using any of the recommended methods in this section.

If you are replacing an old graphics card with a new ASUS graphics card, make sure to remove the old display driver from your system. Refer to section "2.3 Removing display drivers" for details.

After physically installing your graphics card, use any of the recommended methods in this section to install your VGA driver.

2.1 Driver installation

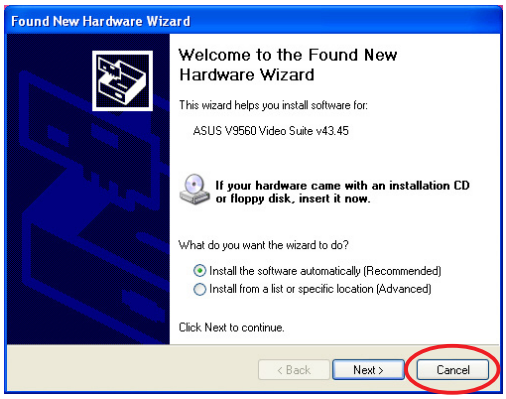
To install the VGA driver:

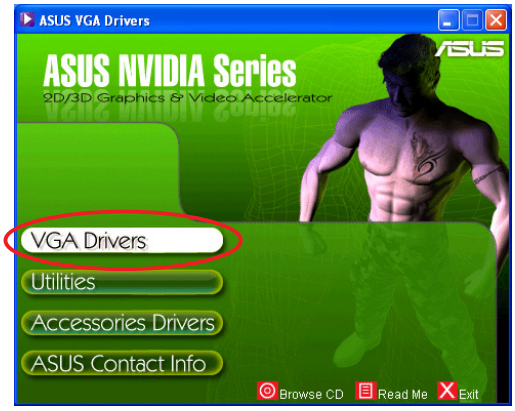
Method 1: Typical installation

The Typical installation method installs the most common options. We recommend this method to most users.

1. From the **Found New Hardware Wizard** dialog box, click **Cancel** to enter the Windows desktop.
2. Insert the support CD into your CD-ROM drive.
3. If autorun is enabled, the 2D/3D Graphics & Video Accelerator appears automatically.

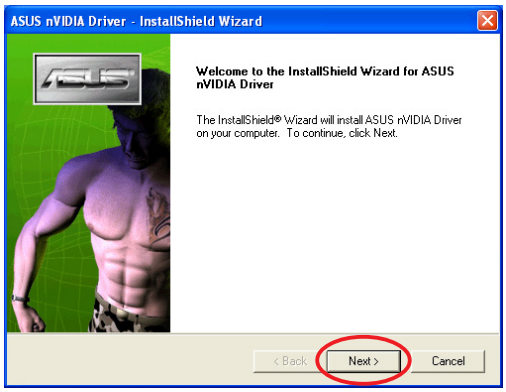
   If autorun is disabled, run **Setup.exe** from the root directory of your support CD.
4. From the 2D/3D Graphics & Video Accelerator main menu, click **VGA Drivers**.



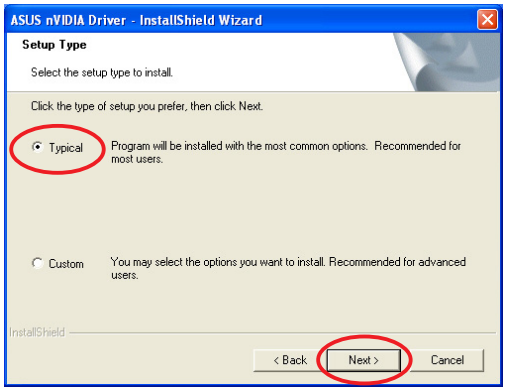


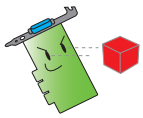
The Setup prepares the Install Shield Wizard which will guide you through the program setup process.

5. Click **Next** from the Install Shield Wizard welcome screen.



6. Select **Typical** then click **Next**.

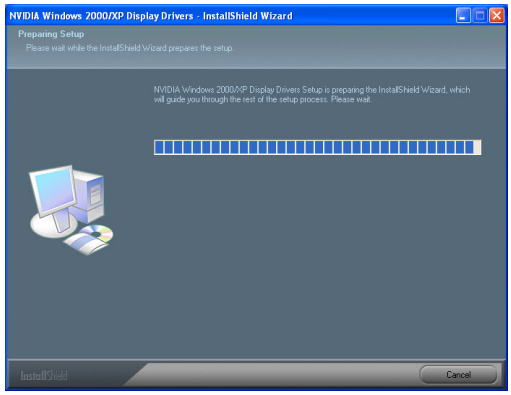




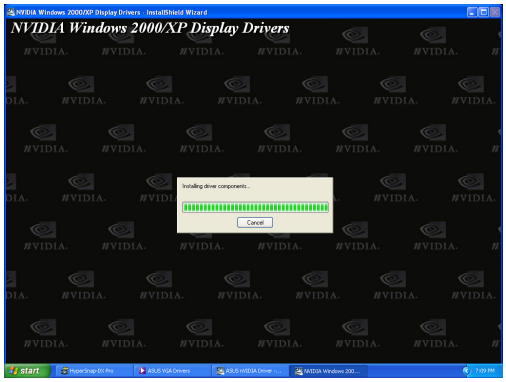
The **Typical** setup type will not include the Windows® Display Model (WDM) and VGARTD drivers. Select **Custom** setup if you want to install the WDM and VGARTD drivers.

A progress bar on the lower right-hand corner of your screen displays the progress of the driver installation process.

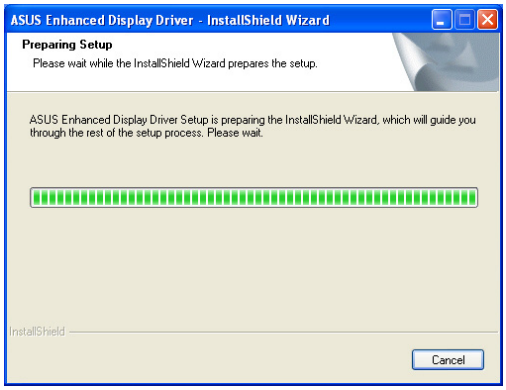
The wizard copies the necessary files to your computer.



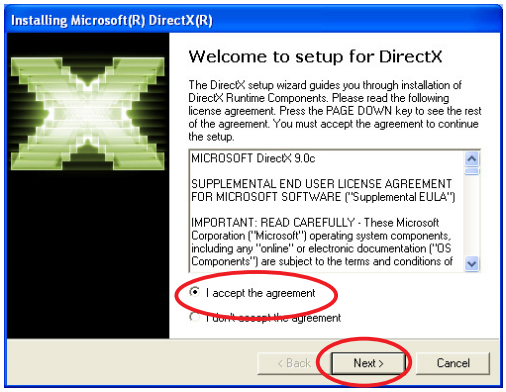
The following screen displays the NVIDIA® display driver installation process.



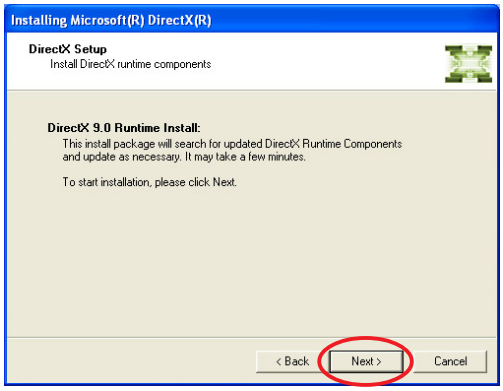
After installing the NVIDIA® display drivers, the setup installs the ASUS Enhanced display drivers.



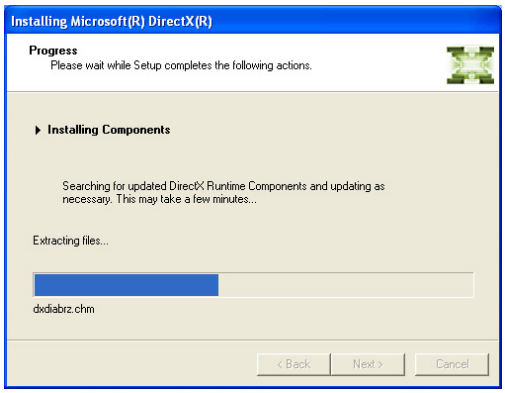
7. The following screen displays the Microsoft® DirectX™ setup. Select **I accept the agreement** then click **Next**.



8. Click **Next** to continue or **Back** to return from previous screen or **Cancel** to abort installation.

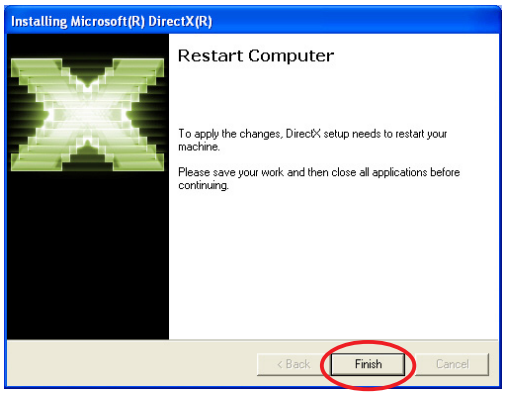


The Microsoft® DirectX™ setup installs components.

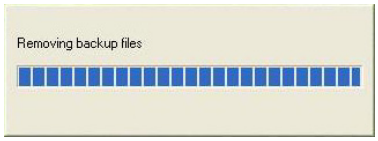


9. The Microsoft® DirectX™ setup notifies you to restart your computer to apply changes. Click **Finish.**

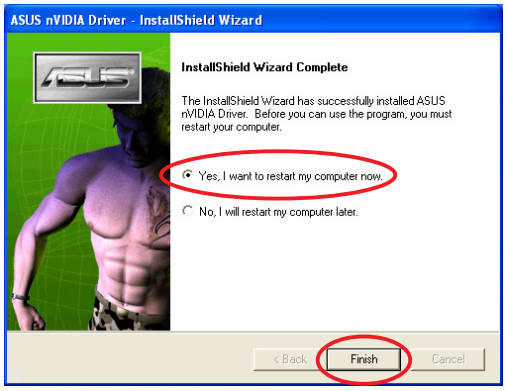
The ASUS VGA installation program will restart your computer after all components are installed into your computer.



The final tasks of the setup process is displayed on the progress bar.



10. After the installation is complete, select **Yes, I want to restart my computer now** then click **Finish**.

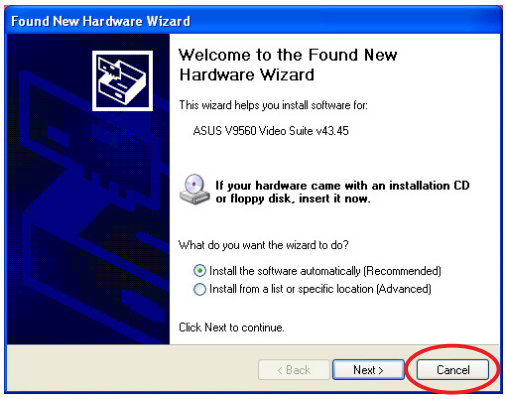


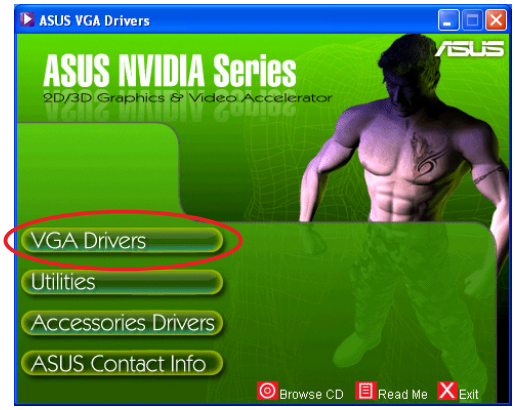
Method 2: Custom installation

The Custom installation method allows you to select the components you want to install. We recommend this method to advanced users.

1. From the **Found New Hardware Wizard** dialog box, click **Cancel** to enter the Windows desktop.
2. Insert the support CD into your CD-ROM drive.
3. If autorun is enabled, the 2D/3D Graphics & Video Accelerator appears automatically.

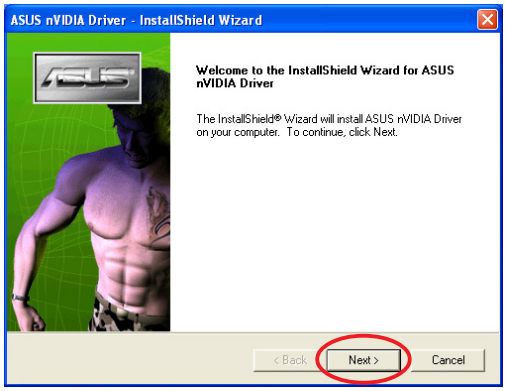
   If autorun is disabled, run **Setup.exe** from the root directory of your support CD.
4. From the 2D/3D Graphics & Video Accelerator main menu, click **VGA Drivers**.



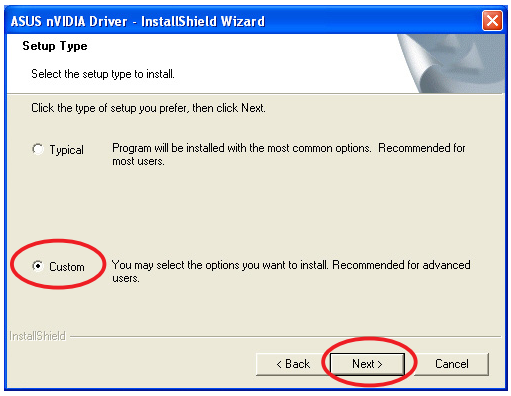


The Setup prepares the Install Shield Wizard which will guide you through the program setup process.

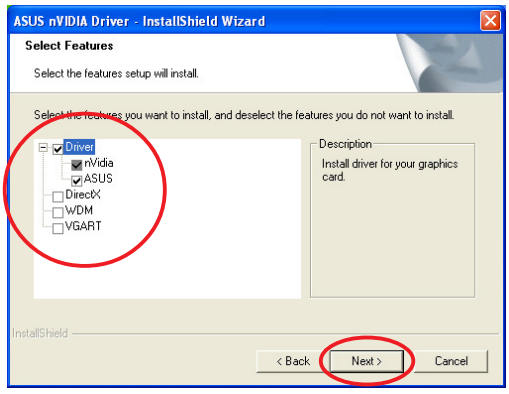
5. Click **Next** from the Install Shield Wizard welcome screen.



6. Select **Custom** then click **Next.**



7. Click the check box of the item you want to install then click **Next.**



Driver

NVIDIA - installs the NVIDIA® driver for your graphics card.

ASUS - installs the ASUS Enhanced drivers to support the bundled ASUS utilities including ASUS GameFace Live! and SmartDoctor. These enhanced drivers also enable support for Direct3D™ and OpenGL™ modes.

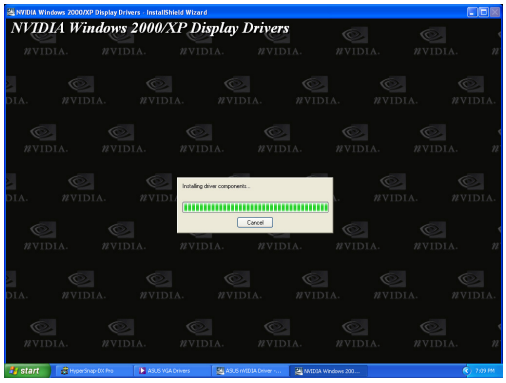
DirectX - installs the latest Microsoft® DirectX™ runtime libraries.

VGART - installs the INF files necessary for the AGP or PCI Express™ function.

WDM - installs the Windows Display Model (WMD) drivers. This item appears only if your graphics card supports the Video-In Video-Out (VIVO) function.

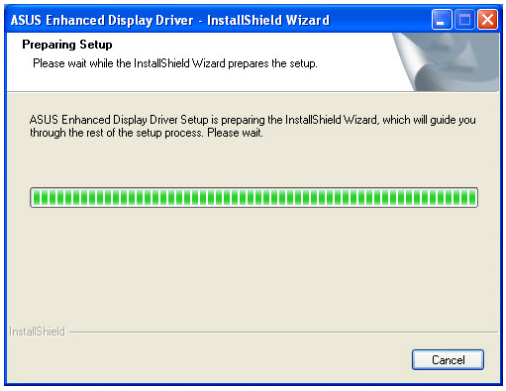
A progress bar on the lower right-hand corner of your screen displays the progress of the driver installation process.

The following screen displays the NVIDIA driver and ASUS enhanced drivers installation process.

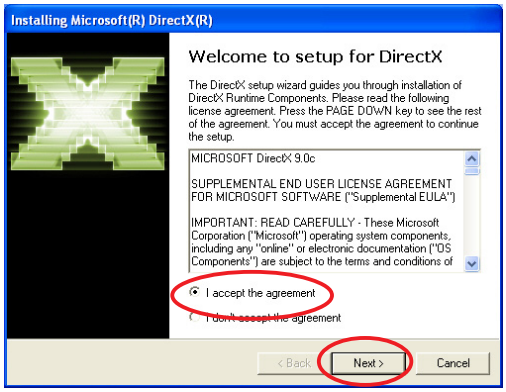


The NVIDIA driver installation process appears only if you selected the NVIDIA® driver from the custom install screen.

The ASUS Enhanced Display drivers installation process appears only if you selected ASUS drivers from the custom install screen.



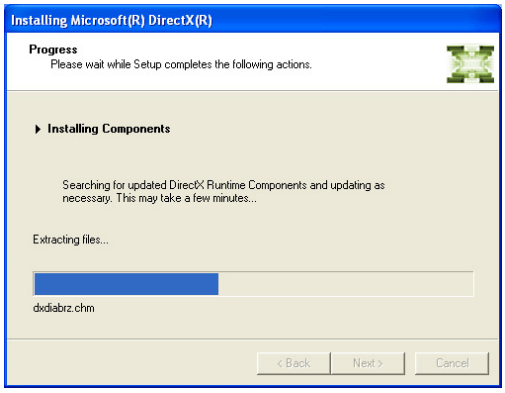
8. The following screen displays the Microsoft® DirectX™ setup. Select **I accept the agreement** then click **Next**.



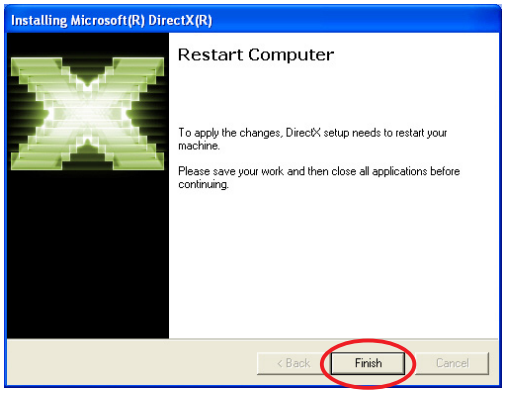
The DirectX™ installation process appears only if you selected the DirectX item from the custom install screen.

9. Click **Next** to continue or **Back** to return from previous screen or **Cancel** to abort installation.

The Microsoft® DirectX™ setup installs necessary components.

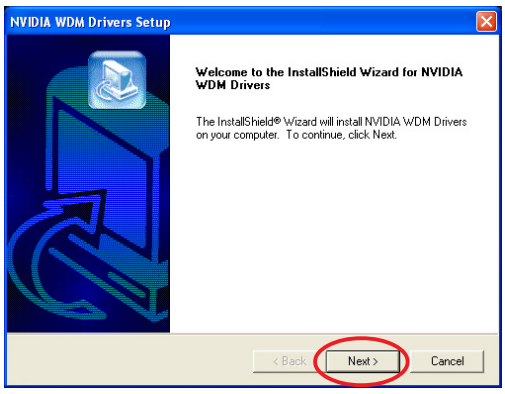


10. The Microsoft® DirectX™ setup notifies you to restart your computer to apply changes. Click **Finish.**



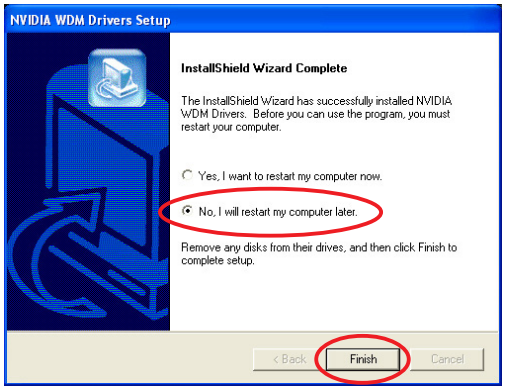
The ASUS VGA installation program will restart your computer after all components are installed into your computer.

11. The following screen displays the Windows Display Model (WDM) drivers setup. Click **Next.**



The WDM display driver installation process appears only if you selected the WDM item from the custom install screen.

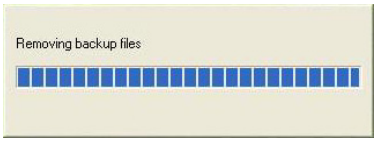
12. After the WDM driver installation is complete, the setup notifies you to restart your computer. Select **No, I will restart my computer later.** then click **Finish.**



13. From the ASUS VGARTD driver installation screen, select **Yes, install its VGARTD driver** then click **OK**.
14. Follow the succeeding screen instructions to install the appropriate VGARTD driver for the chipset on your motherboard.

The ASUS AGP VGARTD driver installation process appears only if you selected the VGART item from the custom install screen.

The final tasks of the setup process is displayed on the progress bar.



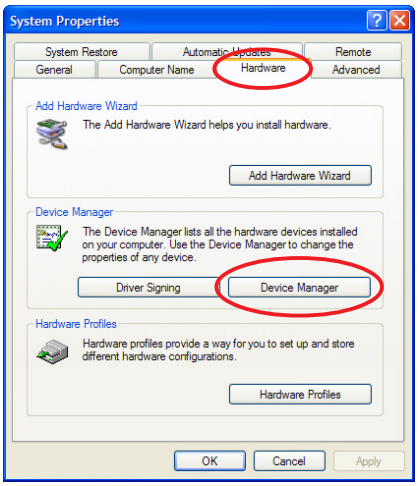
15. After the installation is complete, select **Yes, I want to restart my computer now** then click **Finish**.

2.2 Updating the Windows display driver

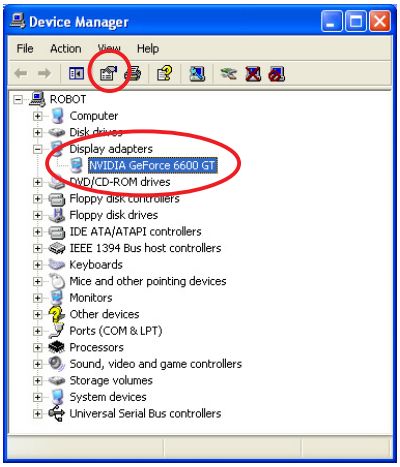
The latest display driver for your ASUS graphics card is available at the ASUS website (www.asus.com). Visit the ASUS website to download driver updates.

To update the Windows display driver:

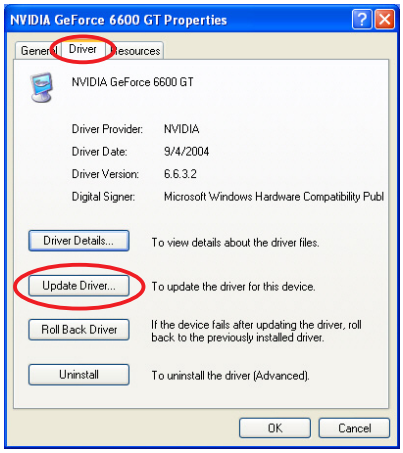
1. Boot your computer.
2. Click the **Start** button. Select **Settings**, then **Control Panel**.
3. Double-click the **System** icon in the Control Panel. Select the **Hardware** tab.
4. Click **Device Manager**, then double-click on **Display adapters**.



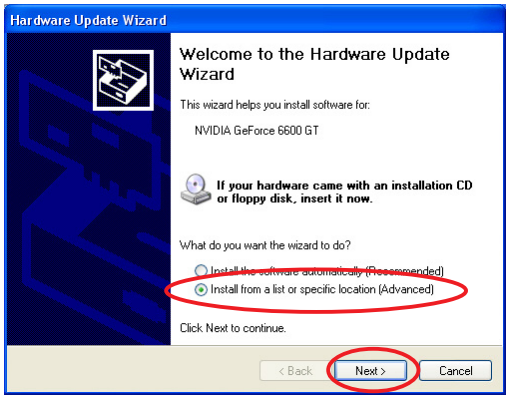
5. Select the current display adapter then click on the **Properties icon**.



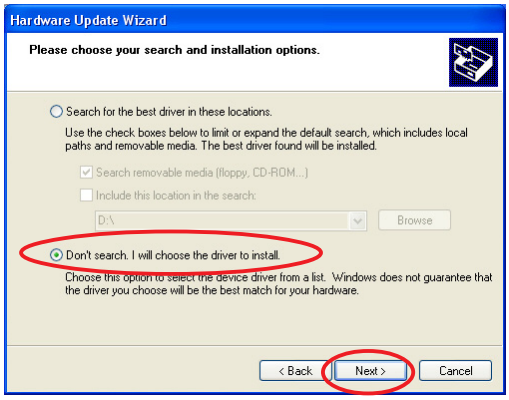
6. From the Properties dialog box, select the **Driver** tab, then click on **Update Driver**.



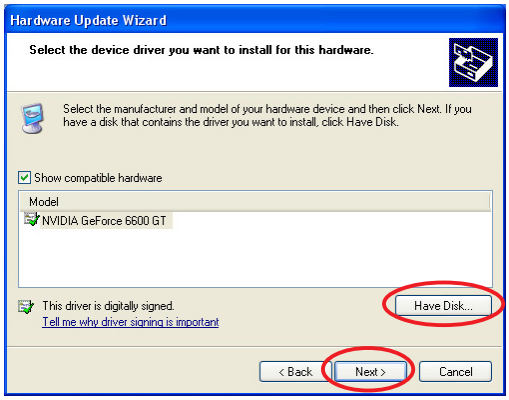
7. Select the **Install from a list or specific location (Advanced)** option, then click **Next**.



8. Select the **Don't search. I will choose the driver to install** option, then click **Next**.



9. Click **Have Disk...** on the following screen then click **Next**.
10. When setup prompts you for the location of the driver, click **Browse** to locate the saved driver file in your hard disk, network, floppy or CD-ROM drive.
11. Follow the succeeding screen instructions.
12. The application prompts you to restart your computer to complete the process. Click **Yes**.

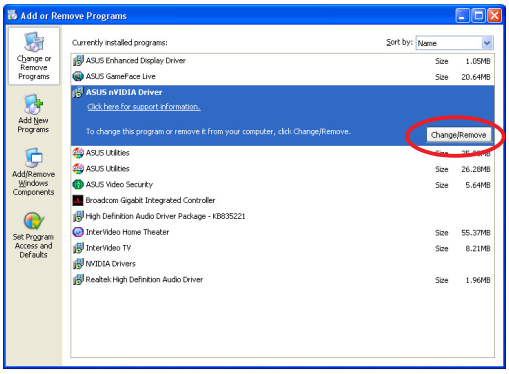


2.3 Removing display driver

If you want to replace your display driver or if you no longer need the display driver for your card, follow the procedures in this section to completely remove the display driver from the system.

To remove the display drivers:

1. Click the **Start** button, then **Control Panel**.
2. From the Control Panel, double-click the **Add or Remove Programs** icon to display the **Add or Remove Programs** screen.
3. Select **ASUS NVIDIA Driver** from the list, then click **Change/Remove**.
4. Follow the succeeding screen instructions.
5. The application prompts you to restart your computer to complete the process. Click **Yes**.



3. Utilities

Your graphics card package comes with innovative technologies to turn your computer into a smart multimedia center. You can install or remove these utilities using any of the recommended methods in this section.

After installing the VGA drivers for your graphics card, use any of the recommended methods to install any of the following utilities:

A. ASUS GameFaceLive!

The ASUS GameFace Live! is a real-time audio/video communication feature that enhances your interactive gaming experience. This utility enables point-to-point video conferencing functions and online gaming to take place at the same time. With this feature, you can see and talk to your opponents while playing full-screen online games!

B. ASUS SmartDoctor

The Smart Doctor utility monitors the VGA card condition and significantly cools down the VGA Graphics Processing Unit (GPU). This utility also allows you to adjust the graphics card clock settings.

- The ASUS Smart Doctor utility works only for graphics card models with a built-in hardware monitor IC. If the hardware monitor IC is not present, only the SmartDoctor overclocking function will be installed.
- The Smart Doctor utility is not supported in the Radeon 9600SE and Radeon 9200SE graphics card models.

C. ASUS VideoSecurity

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. An optional warning message is also sent to the user via email or phone.

3.1 Utilities installation

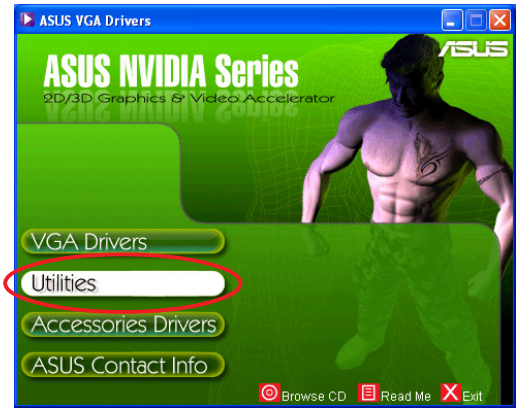
To install the utilities:

Method 1: Complete installation

The Complete installation method installs all the available program features. We recommend this method to most users.

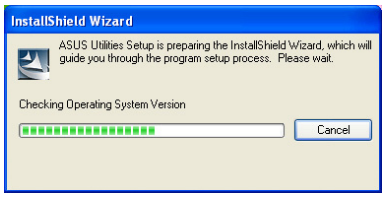
1. Insert the support CD into your CD-ROM drive.
2. If autorun is enabled, the 2D/3D Graphics & Video Accelerator appears automatically.

   If autorun is disabled, run **Setup.exe** from the root directory of your support CD.

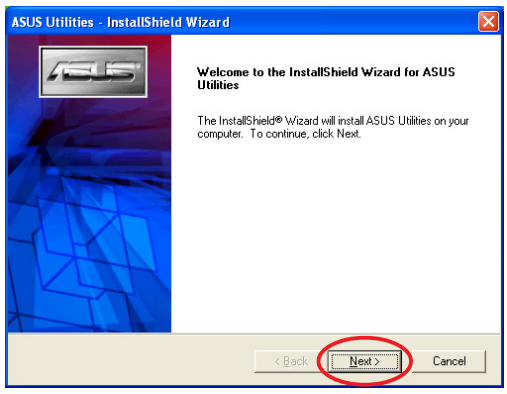


3. From the 2D/3D Graphics & Video Accelerator main menu, click **Utilities**.

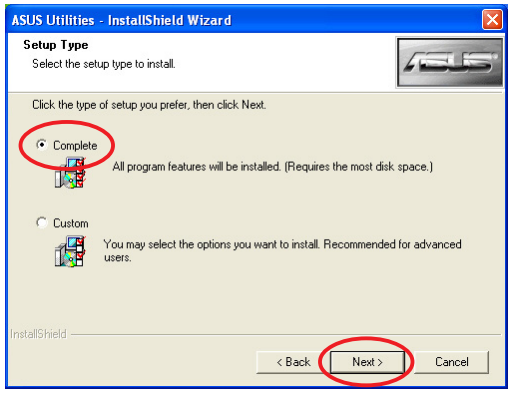
   The Setup prepares the Install Shield Wizard which will guide you through the program setup process.



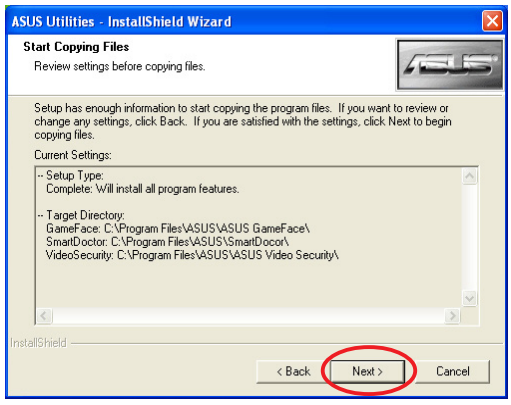
4. Click **Next** from the Install Shield Wizard welcome screen.



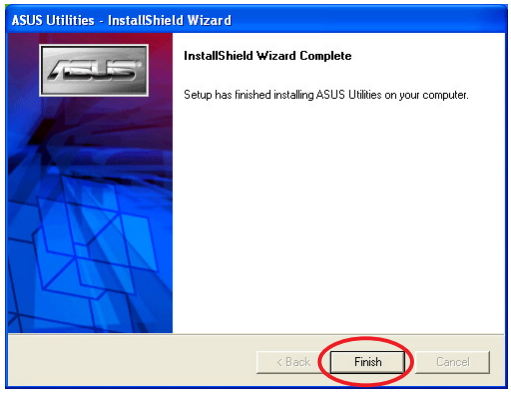
5. Select **Complete** then click **Next**.



6. The setup displays the target directory for the utilities, click **Next**.



7. After the installation is complete, click **Finish**.



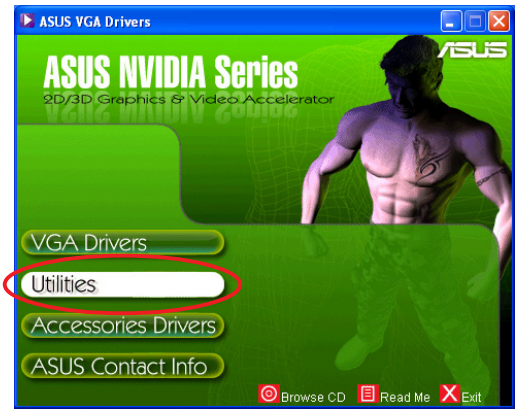
Method 2: Custom installation

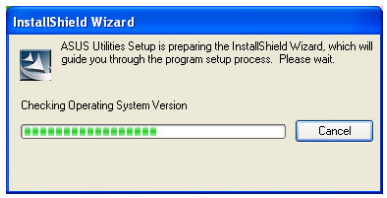
The Custom installation method allows you to select the features you want to install. We recommend this method to advanced users.

1. Insert the support CD into your CD-ROM drive.
2. If autorun is enabled, the 2D/3D Graphics & Video Accelerator appears automatically.

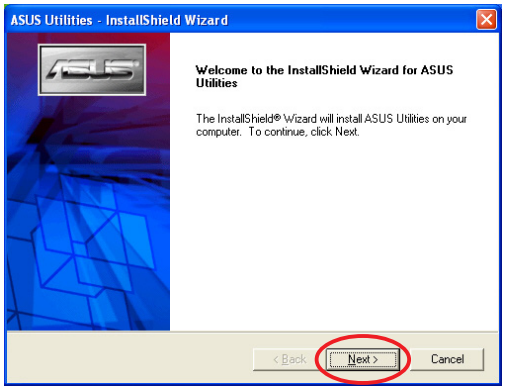
   If autorun is disabled, run **Setup.exe** from the root directory of your support CD.
3. From the 2D/3D Graphics & Video Accelerator main menu, click **Utilities**.

   The Setup prepares the Install Shield Wizard which will guide you through the program setup process.

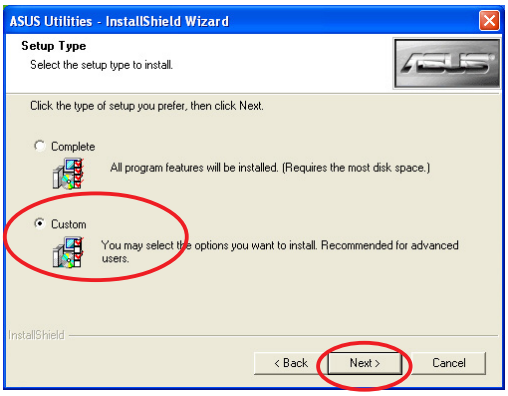




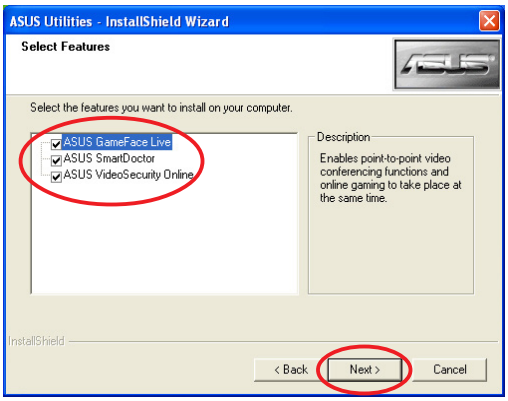
4. Click **Next** from the Install Shield Wizard welcome screen.



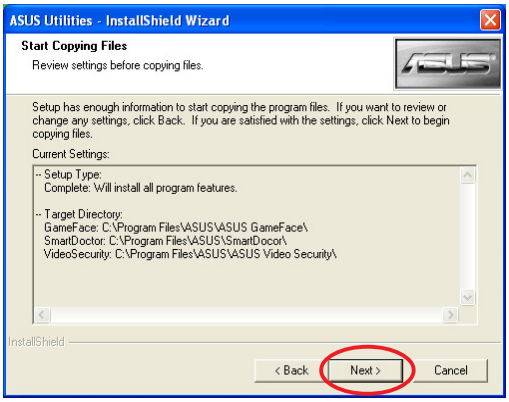
5. Select **Custom** then click **Next.**



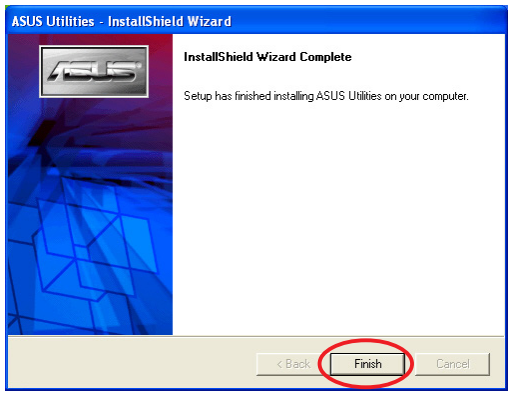
6. Click the check box of the item you want to install then click **Next.**



7. The setup displays the target directory for the utilities selected, click **Next.**



8. After the installation is complete, click **Finish**.



3.2 Removing installed utilities

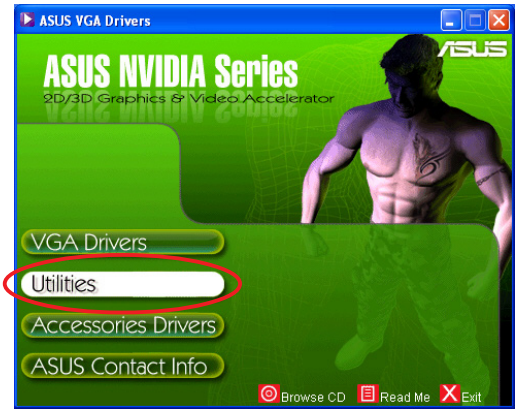
If you want to remove any of the installed utilities, follow the procedures in this section to completely remove the utilities from the system.

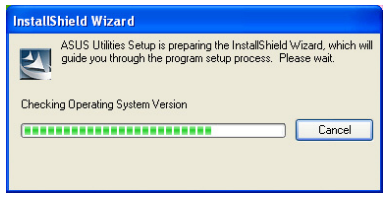
To remove the utilities:

1. Insert the support CD into your CD-ROM drive.
2. If autorun is enabled, the 2D/3D Graphics & Video Accelerator appears automatically.

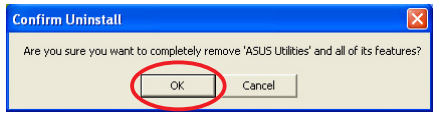
   If autorun is disabled, run **Setup.exe** from the root directory of your support CD.
3. From the 2D/3D Graphics & Video Accelerator main menu, click **Utilities**.

   The Setup prepares the Install Shield Wizard which will guide you through the program setup process.

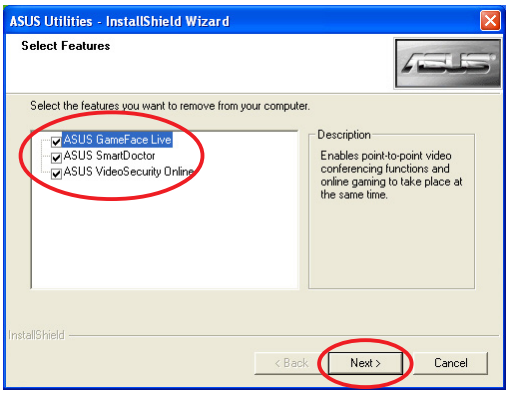




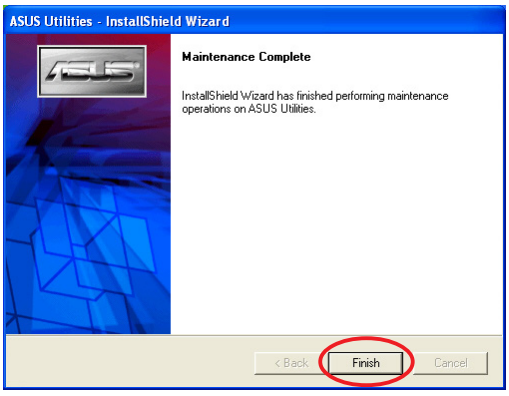
4. The uninstall utility displays a verification message, click **OK** to remove the utilities installed.



5. Click the check box of the item you want to remove then click **Next**.



6. Click **Finish** to restart your computer and apply the changes.



4. Accessories Drivers

You can install additional accessories such as a webcam or game pad that enhances your computer's multimedia features. You can install or remove the drivers for any of the following accessories:

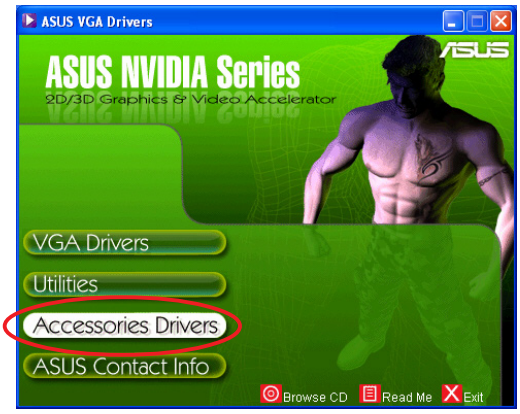
4.1 Installing Webcam driver

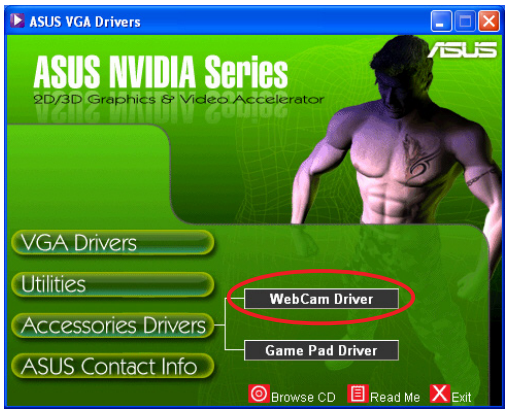
To install the webcam drivers:

1. Insert the support CD into your CD-ROM drive.
2. If autorun is enabled, the 2D/3D Graphics & Video Accelerator appears automatically.

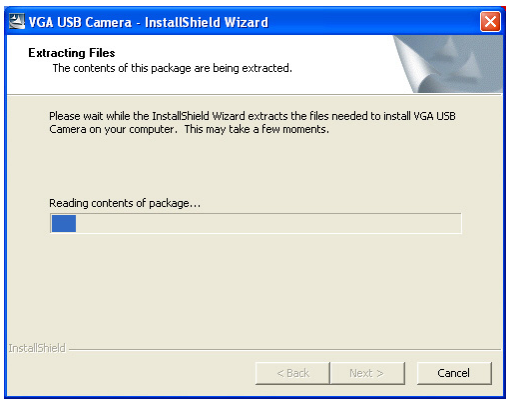
   If autorun is disabled, run **Setup.exe** from the root directory of your support CD.
3. From the 2D/3D Graphics & Video Accelerator main menu, click **Accessories Drivers**.

   The Setup displays the supported accessories.
4. Click **Webcam Driver** from the Accessories Drivers sub-menu.

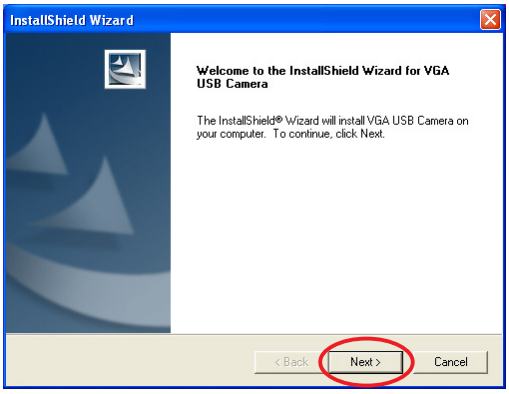




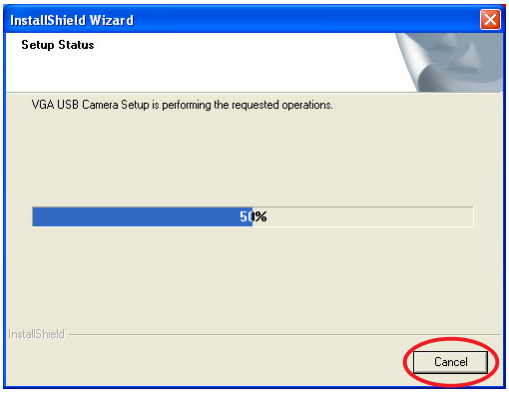
The setup prepares the files for installation.



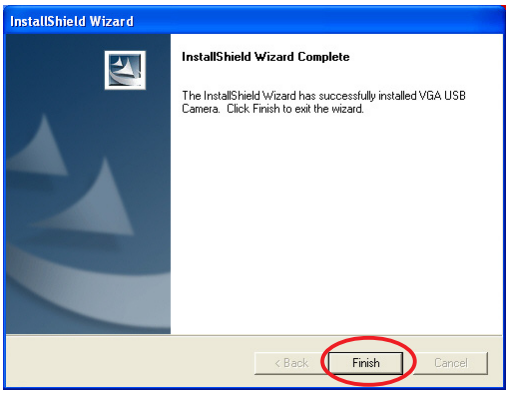
5. Click **Next** on the following screen.



The setup displays the installation progress. Click **Cancel** if you want to abort installation.



6. After the installation is complete, click **Finish**. You can now use your webcam.

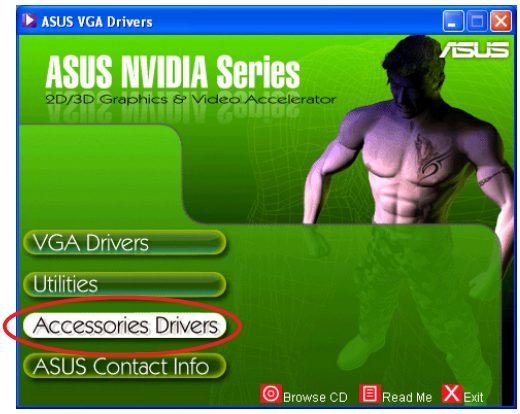


4.2 Installing the Gamepad drivers

To install the gamepad drivers:

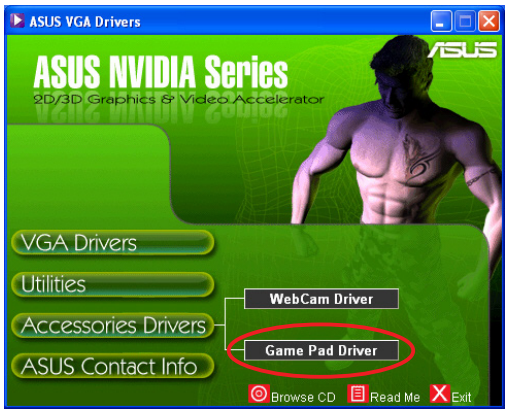
1. Insert the support CD into your CD-ROM drive.
2. If autorun is enabled, the 2D/3D Graphics & Video Accelerator appears automatically.

   If autorun is disabled, run **Setup.exe** from the root directory of your support CD.

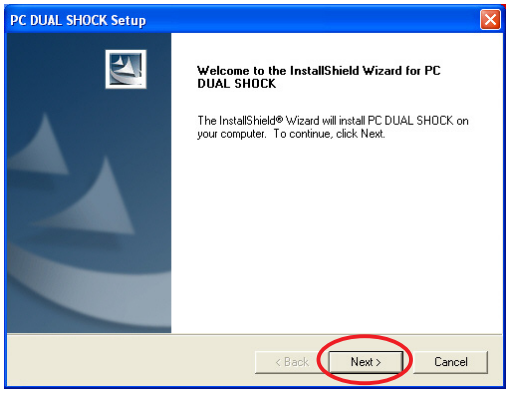


3. From the 2D/3D Graphics & Video Accelerator main menu, click **Accessories Drivers**.

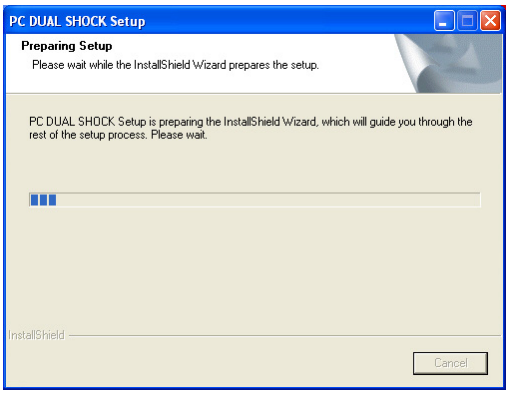
   The Setup displays the supported accessories.
4. Click **Game Pad Driver** from the Accessories Drivers sub-menu.



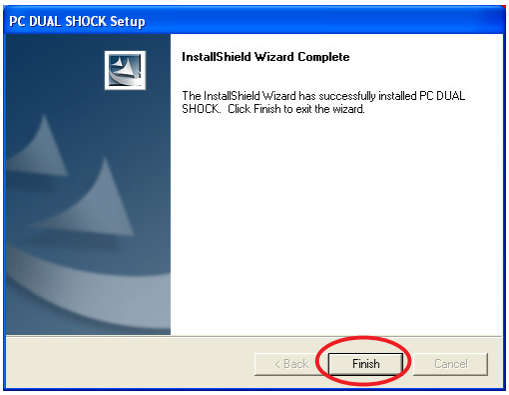
5. Click **Next** on the following screen.



The setup prepares the files for installation.



6. After the installation is complete, click **Finish**. You can now use your game pad.

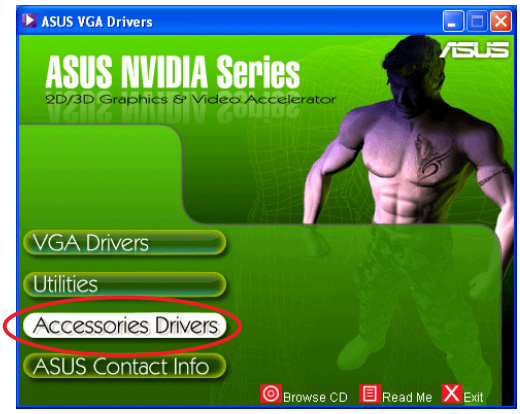


4.3 Removing Webcam driver

To remove the webcam drivers:

1. Insert the support CD into your CD-ROM drive.
2. If autorun is enabled, the 2D/3D Graphics & Video Accelerator appears automatically.

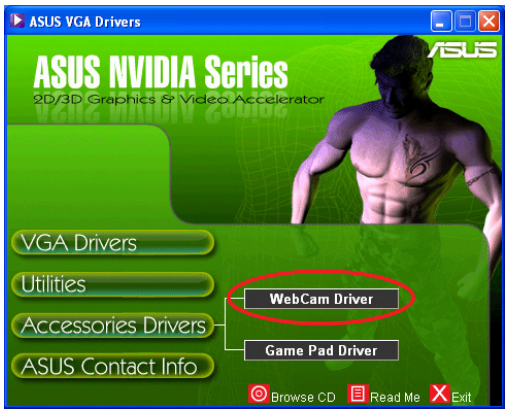
   If autorun is disabled, run **Setup.exe** from the root directory of your support CD.



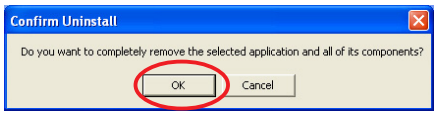
3. From the 2D/3D Graphics & Video Accelerator main menu, click **Accessories Drivers**.

   The Setup displays the supported accessories.

4. Click **Webcam Driver** from the Accessories Drivers sub-menu.



5. The setup displays a confirmation message, click **OK** to remove webcam drivers.



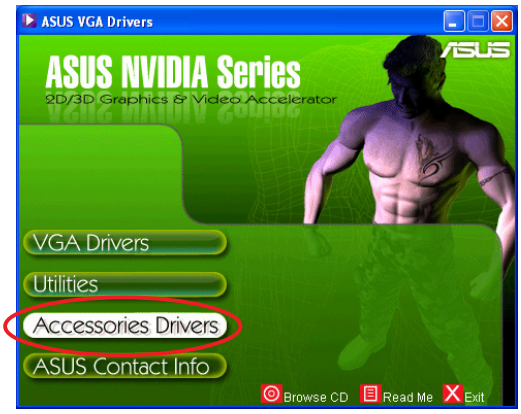
4.4 Removing the Gamepad drivers

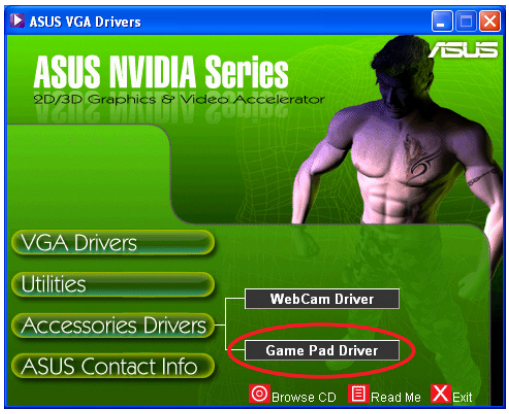
To remove the gamepad drivers:

1. Insert the support CD into your CD-ROM drive.
2. If autorun is enabled, the 2D/3D Graphics & Video Accelerator appears automatically.

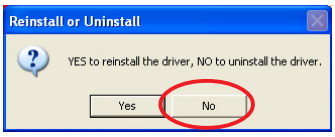
   If autorun is disabled, run **Setup.exe** from the root directory of your support CD.
3. From the 2D/3D Graphics & Video Accelerator main menu, click **Accessories Drivers**.

   The Setup displays the supported accessories.
4. Click **Game Pad Driver** from the Accessories Drivers sub-menu.

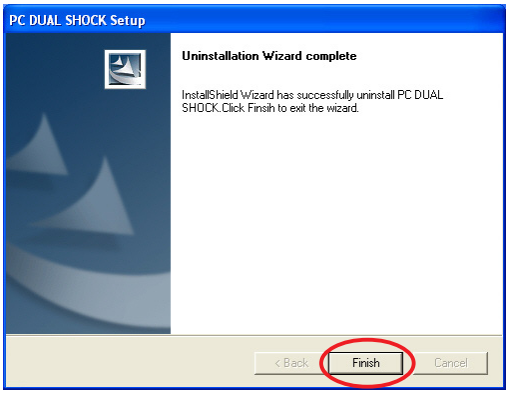




5. The setup displays a confirmation message, click **No** to remove gamepad drivers.



6. After the uninstall process is complete, click **Finish**.

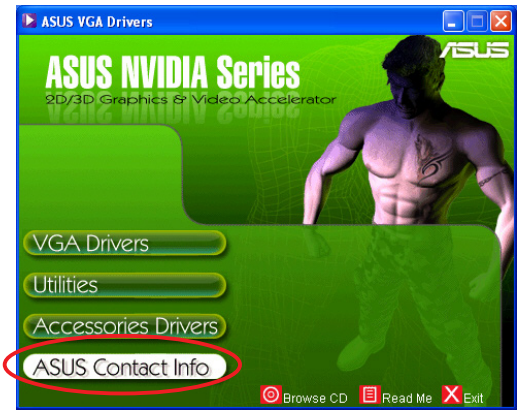


5. ASUS Contact information

To display the ASUS contact information:

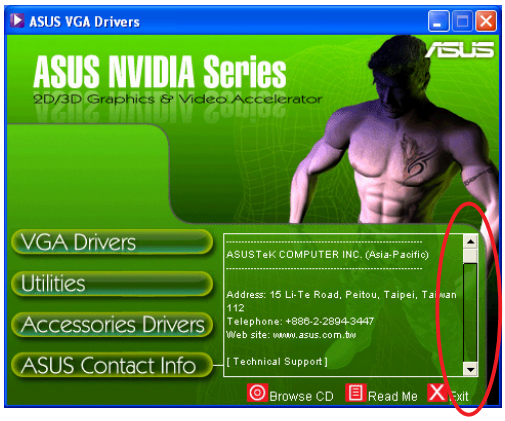
1. Insert the support CD into your CD-ROM drive.
2. If autorun is enabled, the 2D/3D Graphics & Video Accelerator appears automatically.

   If autorun is disabled, run **Setup.exe** from the root directory of your support CD.
3. From the 2D/3D Graphics & Video Accelerator main menu, click **ASUS Contact Info**.



The setup displays a text box containing the contact information for all the ASUS regional offices worldwide.

4. Move the **scroll bar** to view the whole text.



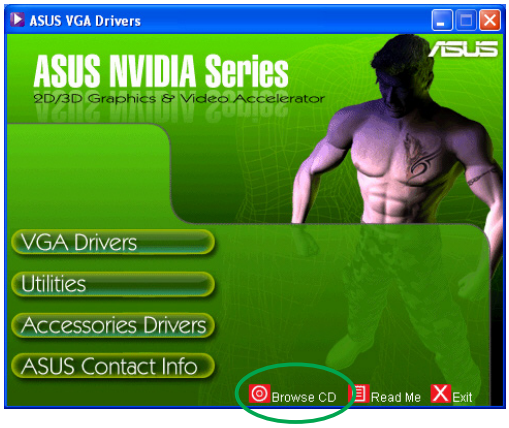
6. Other information

6.1 Browse Support CD

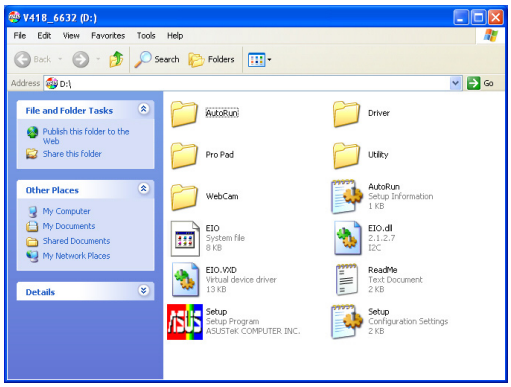
To browse the support CD:

1. Insert the support CD into your CD-ROM drive.
2. If autorun is enabled, the 2D/3D Graphics & Video Accelerator appears automatically.

   If autorun is disabled, run **Setup.exe** from the root directory of your support CD.
3. From the 2D/3D Graphics & Video Accelerator main menu, click **Browse CD**.



The setup displays the following window.

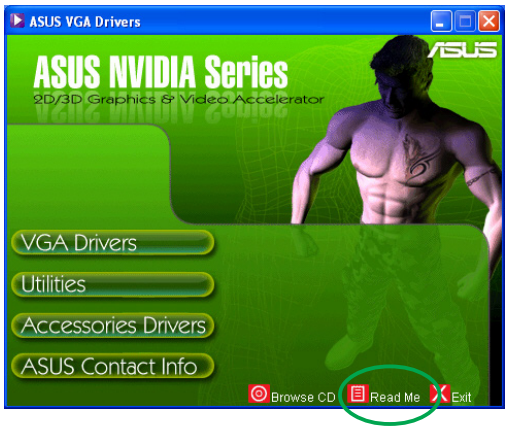


6.3 View readme file

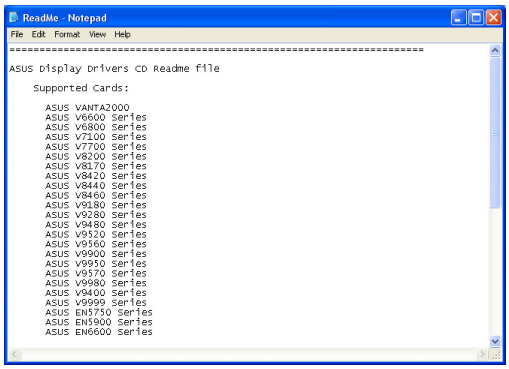
To view the readme file:

1. Insert the support CD into your CD-ROM drive.
2. If autorun is enabled, the 2D/3D Graphics & Video Accelerator appears automatically.

   If autorun is disabled, run **Setup.exe** from the root directory of your support CD.
3. From the 2D/3D Graphics & Video Accelerator main menu, click **Read Me**.



The setup displays the following window.



Appendix: Basic troubleshooting

If you encounter any of the following conditions after installing your graphics card, try performing one of the possible solutions before calling for technical support.

Problem	No display after the card is installed.
Cause	Your card might not be properly installed.
Solution	Make sure that the card is not tilted or skewed on the slot.
Cause	Your monitor might not be properly connected.
Solution	Make sure that the signal cable is properly connected to your monitor and graphics card.
Cause	Your graphics card is not supported by your motherboard.
Solution	Check the technical documentation that came with your motherboard and check the required specifications for your graphics card (e.g., AGP voltage requirement).
Cause	The graphics card auxiliary power is not connected.
Solution	Make sure that the auxiliary power cables are properly connected with the power supply unit.
Cause	Insufficient power supply.
Solution	Make sure that your power supply unit can provide the minimum power requirement to your system.
Cause	Incorrect motherboard hardware system settings (e.g., system control panel connections).
Solutions	• Make sure that the system control panel cables are connected properly (e.g., Power Switch, Reset). • Make sure that your CPU, CPU fan and/or memory DIMMs are in good working condition and are connected properly.

Problem	Wrong color balance
Cause	Your card might not be properly installed.
Solution	Make sure that the card is not tilted or skewed on the slot.
Cause	Your video controls might not be properly set.
Solutions	• Manually configure your video controls to your desired settings. • Configure your graphics card display resolution in Display Properties.
Cause	There may be unsupported graphics card drivers installed in your system. Conflicts may occur with graphics card drivers from different vendors.
Solutions	• Remove any unused graphics card drivers installed in your system. • Install the graphics card driver from the support CD that came with your graphics card package.
Cause	The graphics card auxiliary power is not connected.
Solution	Make sure that the auxiliary power cables are properly connected with the power supply unit.
Cause	If your monitor comes with BNC connectors, the port connections might be incorrect.
Solution	Make sure that all BNC connectors are connected properly to its port.
Cause	Your monitor software settings might be incorrect.
Solution	Configure your monitor software to your desired settings.

Problem	The screen image is garbled.
Cause	Your monitor cannot support desired display settings.
Solution	Make sure that your monitor can support your desired display settings. See the technical documentation that came with your monitor.
Cause	Your graphics card cannot support desired system settings.
Solution	Make sure that your graphics card can support your desired display settings. See the specifications table that came with this graphics card package.
Cause	Some graphics driver files might be corrupted.
Solution	Remove your current graphics drivers and reinstall the graphics drivers from the support CD.
Cause	Poor heat dissipation inside the chassis.
Solutions	Make sure that the chassis fan, CPU and heatsink with fan, and/or the graphics card GPU fan are working properly.

Other problems that you might encounter can be related to other parts or accessories (e.g., motherboard, power supply unit, LCD/CRT) of your system.