

Notebook PC

Drivers and Utilities

User's Manual

Table of Contents

Support CD for Windows	5
New Windows Installation	5
Drivers for Windows	5
VGA Driver	10
VGA Driver Setup	12
Display Settings for Windows XP	13
ASUS Wireless LAN	16
Wireless LAN Driver Setup	18
ASUS WLAN Utility Setup	18
ATKACPI	20
ATKACPI Setup	22
Audio	22
Audio Setup	24
CPU Hotfix	24
CPU Hotfix Setup	26
Intel INF Update	27
Intel INF Update Setup	28
LAN	29
LAN Driver Setup	30
Configuring your LAN	31
Modem	34
Modem Setup - Automatic	36
Modem Setup - Manual	37
ChkMail	40
ChkMail Setup	42
LiveUpdate	43
LiveUpdate Setup	44
Using LiveUpdate	45

PC-cillin 2002	47
Welcome to PC-cillin 2002	48
Personal Firewall	49
PC-cillin for Wireless	49
Trojan System Cleaner	50
ScriptTrap Technology	50
Emergency Lock	50
User Interface	50
About Intelligent Update	51
New product registration method	51
About viruses	51
How viruses are created	52
Accessing the Trend Micro Virus Encyclopedia	52
Viewing the Trend Micro Virus list	52
Contacting Technical Support	52
PC-cillin 2002 Feature Screens	54
Power4 Gear+	54
Power4 Gear+ Setup	56
Probe2	61
Probe2 Setup	62
Probe2 Reference	63
TouchPad	67
Touchpad Setup	68
Synaptics® TouchPad Features	69
Property Pages	72
Frequently Asked Questions	79
WinFlash	80
WINFLASH Setup	82
Using WINFLASH	83

Memory Reader	84
Memory Reader Driver Setup	86
BIOS Setup	95
Updating your BIOS	96
BIOS Setup Program	96
Main	100
Advanced	101
Advanced (sub-menu)	102
Display	105
Security	106
Security (sub-menu)	108
Power	110
Boot	111
Boot (sub-menu)	112
Boot	113
Exit	114

Support CD for Windows



The Notebook PC you purchased may or may not be preloaded with an operating system. The support CD included with this Notebook PC provides all the necessary drivers and utilities in order for you to use your Notebook PC with Microsoft® Windows® XP (referred to as “Windows” in this User’s Manual).

The levels of hardware and software support may vary depending on the installed operating system. Operating systems not pre-installed on this Notebook PC may produce different results than the ones described in the provided user’s manuals.

If your Notebook PC is not preloaded with any operating system, or you want to install another operating system other than the preloaded one, the following pages will give step-by-step installation procedures for typical system configurations under the Windows® operating system. For application usage, please see the online help provided with each of the applications after installation. The following are contents of a typical support CD. Variations may be found for each territory or language. If the autorun menu does not appear, double clicking the CD-ROM disc drive icon in “My Computer” (may be the (D:) drive or (E:) drive on hard drives with two partitions) or running SETUP.EXE (through Start menu “Run...”) located in the root of the support CD, will bring up the autorun menu.

New Windows Installation

If you install a new operating system on your Notebook PC, there will be many hardware devices without drivers. Use the provided support CD to correct this problem.

Drivers for Windows

Next page gives descriptions of each support CD item. Due to ongoing improvements in the support CD, there may be some differences between this User’s Manual and your support CD. The names in quotations are the actual driver names displayed in the System Properties of MS Windows. Windows cannot contain all the device drivers from every manufacturer, with every update; therefore the provided support CD will contain the best driver for your built-in devices and should be used in place of any Windows default drivers.

Software Drivers

Some drivers may already be provided in Windows. If you have any problems with these drivers, visit the Microsoft Windows Update site. A link is provided in Microsoft Windows Explorer under “Tools.”

VGA (Display) “ATI MOBILITY RADEON 9600/9700 Series” Driver

Installing the VGA driver first will make viewing other setup screens much easier. This installs display drivers for your operating system in order to properly use the Notebook PC’s built-in graphics controller and to provide optimal display features. Once the display driver is installed, you can change your display’s resolution and color through Display Properties.

This device is shown under Windows Device Manager “**Display adapters.**”

Intel Callexico2 / ASUS WLAN (Depends on model)

“Intel(R) PRO/Wireless 2200BG Network Connection” or “ASUS WLAN” Driver

Required on models with internal wireless LAN. Installs the required network driver for the Notebook PC’s optional internal wireless LAN controller. If you purchased the optional internal wireless LAN, you need to install this driver. If you did not purchase the optional internal wireless LAN, you cannot install this driver.

This device is shown under Windows Device Manager “**Network Adapters.**”

ATKACPI “ATK0100 ACPI UTILITY” Utility

This utility is required for special utilities provided in the support CD. This installs drivers for the Notebook PC’s Advanced Configuration and Power Interface (ACPI) for features utilizing power management functions.

This device is shown under Windows Device Manager “**System devices.**”

Audio “C-Media AC97 Audio Device” Driver

This installs audio drivers for your operating system in order to properly use the Notebook PC’s built-in sound controller. All audio functions are configured through Windows and help can be located within Windows documentation or Windows help files.

This device is shown under Windows Device Manager “**Sound, video and game controllers.**”

CPU HotFix

This installs Windows support files for advanced features in new Intel processors.

Intel 845M INF Update (required) “Intel 828XX” Drivers

This installs drivers for the Notebook PC’s specific chipset.

This device is shown under Windows “**System devices.**”

LAN “Marvell Yukon Gigabit Ethernet 10/100/1000Base-T Adapter, Copper RJ-45” Driver

Installs the required LAN driver for the Notebook PC’s built-in PCI Fast-Ethernet controller. Fast-Ethernet supports both 10 Base-T or 100 Base-TX networks at half or full duplex.

This device is shown under Windows Device Manager “**Network Adapters.**”

Modem “AC97 SoftV92 Data Fax Modem with SmartCP” Driver

Installs the necessary driver in order for your operating system to have the correct files for the Notebook PC with built-in modem and drivers for integration with the internal audio. With third-party software, fax and speaker phone capabilities are possible using this Notebook PC.

This device is shown under Windows Device Manager “**Modems.**”

Software Utilities

Check Mail Utility

Installs Check Mail Utility to monitor and notify you of incoming email messages waiting in your Microsoft® Outlook or Outlook Express Inbox. (This utility may or may not be compatible with other email applications.)

LiveUpdate Utility

This utility helps you easily upgrade your Notebook PC’s BIOS through an Internet connection.

PC-cillin 2002 Utility

Installs **Trend’s PC-cillin 2002**, a world-class anti-virus protection software for the new Internet era, to keep your PC virus-free. This very powerful anti-virus software is bundled with each Notebook PC to protect your investment. As software become more and more a part of our daily lives, measures have to be taken to protect them. You may skip this software if you have your own anti-virus software.

Power4 Gear+ Utility

Power4 Gear+ is a custom utility designed for this Notebook PC that allows you to use predefined or user defined values for multi-selectable power saving modes or “gears”. You can “shift” between the “gears” using the taskbar icon or the “Power Gear” key above the keyboard.

Probe2 Utility

Installs **Probe2** utility to monitor the Notebook PC’s CPU temperature and other resources. This is an optional software to help you better manage your Notebook PC’s resources.

TouchPad “Synaptics PS/2 TouchPad” Driver

Shown under Windows “**Mice and other pointing devices.**” Installs “**Synaptics® TouchPad**” utility. The Notebook PC already supports built-in or externally connected keyboard and PS/2 mouse devices. However, the provided device driver will provide enhancements and features to the TouchPad to increase the functionality of the TouchPad. For detailed information, see the Software Reference in the next section. To access help, right-click the TouchPad icon on the taskbar and select Help.

WinFlash Utility

Installs a BIOS update utility for Windows so that you can conveniently update your Notebook PC’s BIOS without having to restart your Notebook PC in DOS mode.

Drivers Provided in Windows XP

If you have any problems with these drivers, visit the Microsoft Windows Update site. A link is provided in Microsoft Windows Explorer under “Tools.”

1394 (Already supported in Windows XP)

This driver is provided by Microsoft in its Windows XP operating system.

This device is shown under Windows Device Manager “**IEEE 1394 Bus host controllers**”.

AGP (Already supported in Windows XP)

This function is already supported in Windows XP. The support CD also includes a version of this utility for other Windows versions. Installation will not be possible under Windows XP.

This device is shown under Windows Device Manager “**System devices**”.

PCMCIA (Already supported in Windows XP)

This driver is provided by Microsoft in its Windows XP operating system.

This device is shown under Windows Device Manager “**PCMCIA adapters**”.

USB 2.0 (Already supported in Windows XP SP1 & Windows 2000 SP4)

This driver is provided by Microsoft in its Windows operating system. The support CD also includes a version of this driver for Windows 98 SE or Windows ME. This driver is not required for Windows 2000 or Windows XP and installation will not be possible.

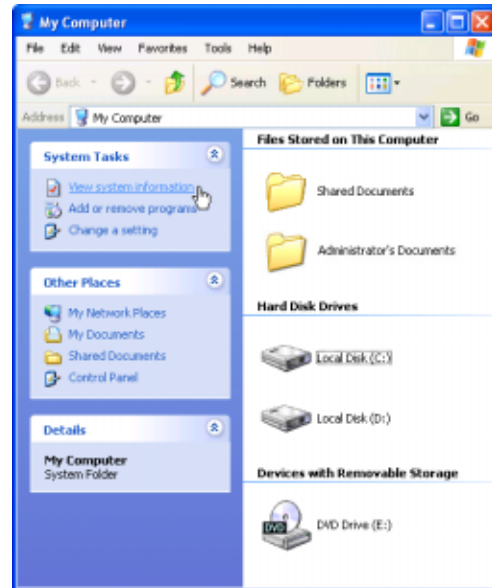
This device is shown under Windows Device Manager “**Universal Serial Bus controllers**”.

Device Manager

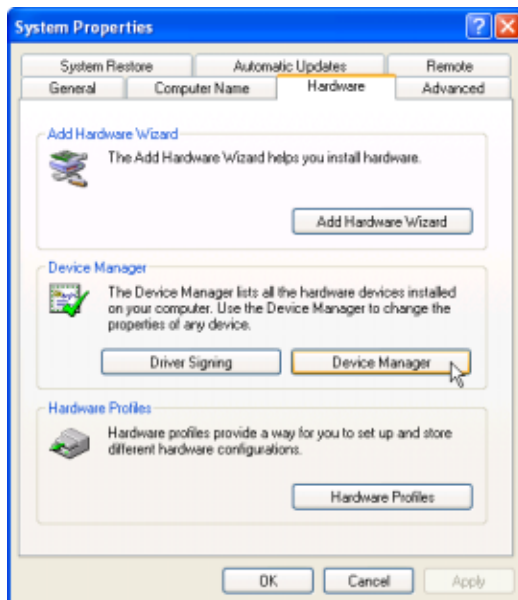
“Device Manager” will be used in many device driver installation, upgrade, and verification processes.



1. Click “start” button.
2. Click “My Computer” icon.



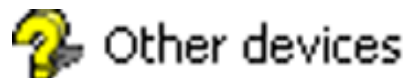
3. Click “View system information” link.

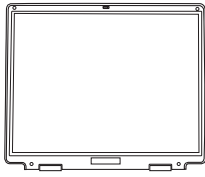


4. Click “Hardware” tab.
5. Click “Device Manager” button.

Hardware Devices

After installing your operating system, several question marks will appear under “Other devices” representing hardware devices that Windows cannot recognize. After installing the drivers from the provided support CD. Those question marks will go away.





VGA Driver

(It is necessary to install the VGA driver first in order to see other setup screens in their proper sizes.)

Topics Covered:

VGA Driver Setup

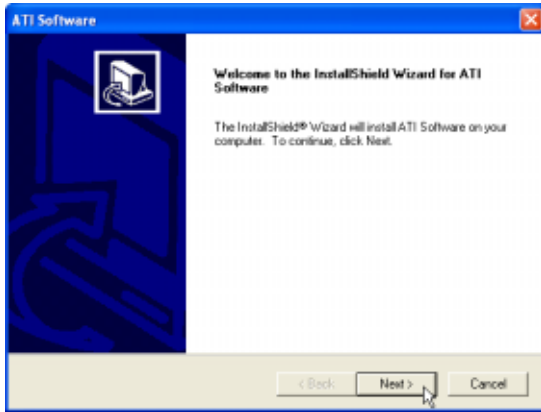
Display Settings for Windows XP

ATI Taskbar Icon

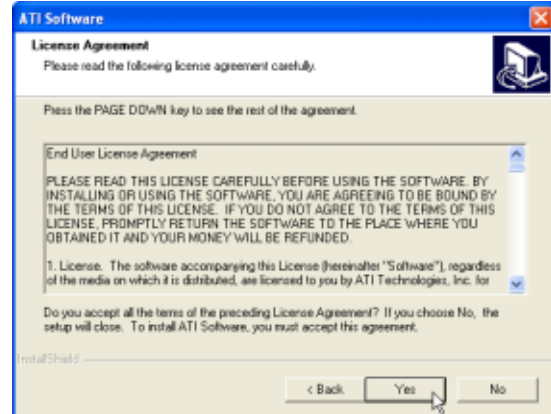
Screens will vary depending on your operating system but the contents should be the same.

VGA Driver Setup

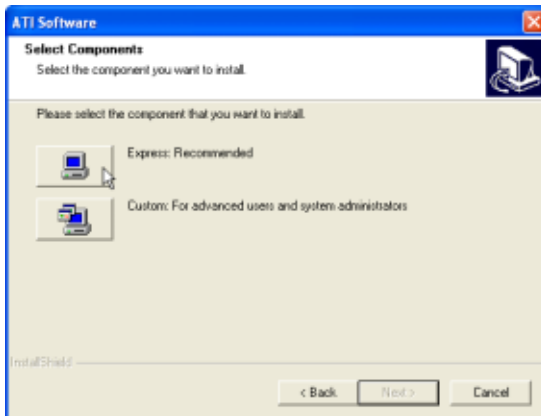
Running setup will give you the following wizard. See next page for VGA settings.



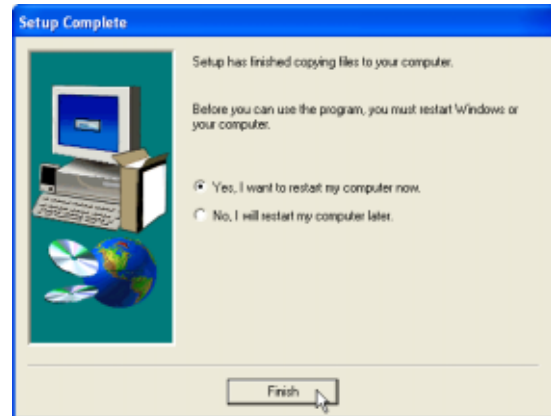
1. On the “Welcome” screen, click **Next** to begin the setup wizard.



2. On the “License Agreement” screen, click **Yes** after reading the message.



3. On the “Select Components” screen, click **Express...** to begin installation.



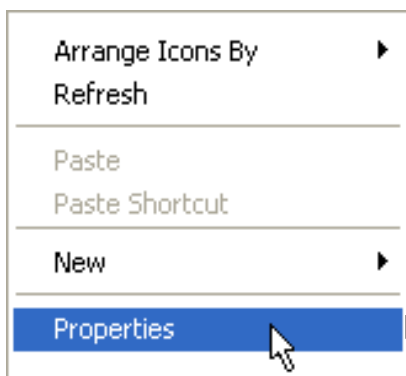
4. When setup is complete, select “Yes...” and click **Finish** in order to restart Windows with a higher screen resolution*.

* Windows may have already provided the highest screen resolution support for this graphics controller.

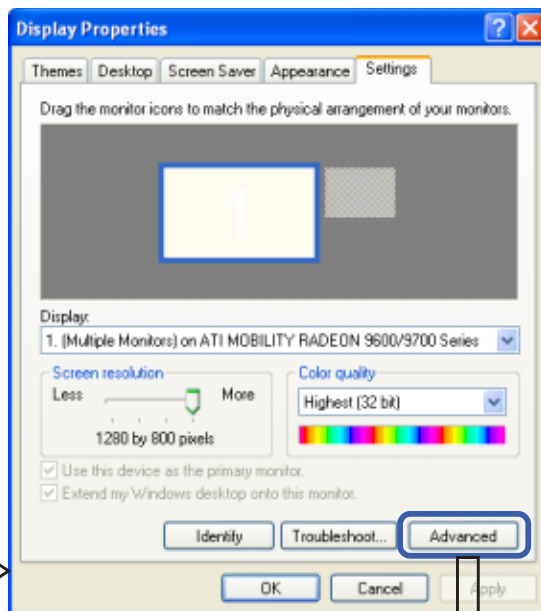
Display Settings for Windows XP

Display Properties

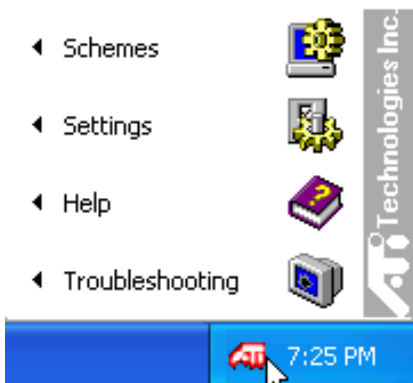
Set screen resolution and color quality to the maximum for best results. If your Notebook PC does not support the maximum resolution, panning will occur to cover the extra area. In this case, you can lower the resolution. .



By right clicking your desktop and selecting **Properties**, you can view your display properties.



For advanced graphics controller settings, click the **Advanced** button



ATi Display Properties

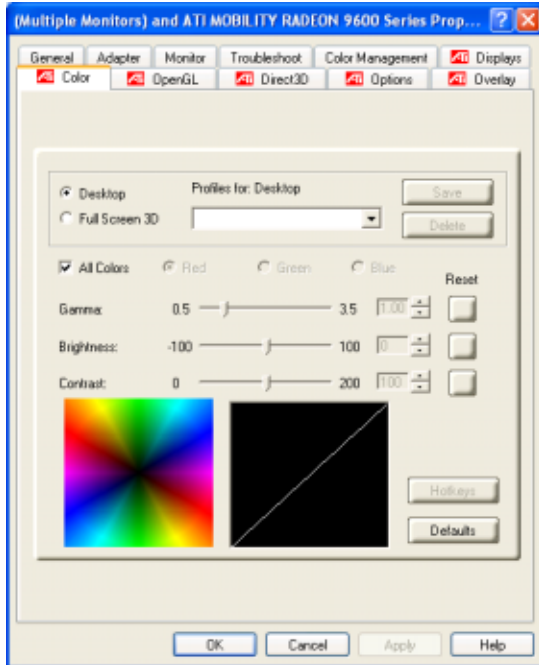
ATI display properties can be accessed through the advanced button or through the ATi icon on the taskbar.



Displays

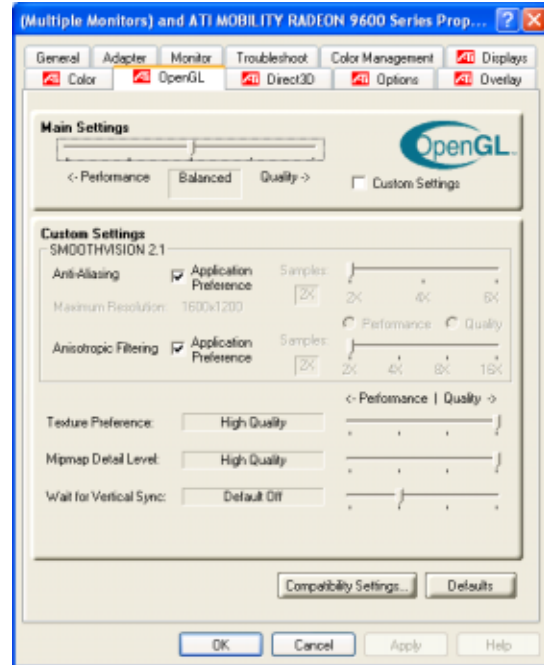
This page allows you to enable or disable display output devices and save schemes with hotkeys.

Display Settings for Windows XP (Cont')



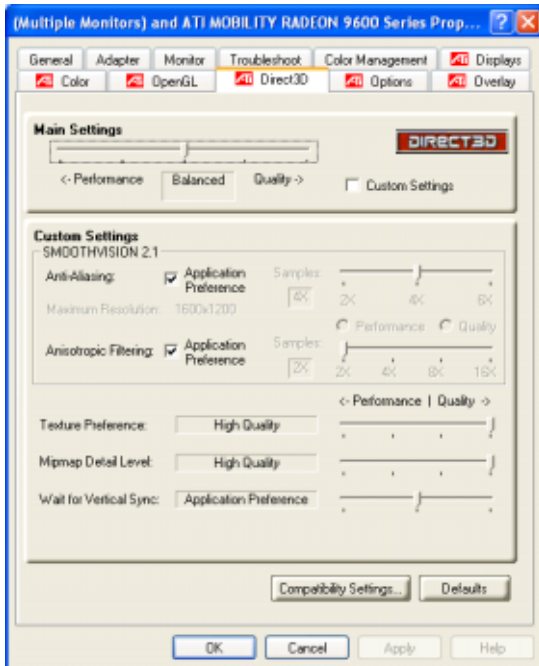
Color

This page allows you to adjust and save profiles for colors, gamma, brightness, and contrast.



OpenGL

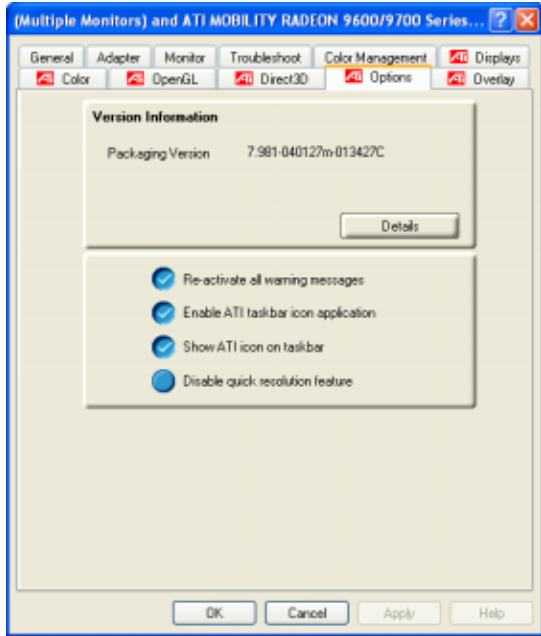
This page allows you to adjust quality and performance for applications using OpenGL.



Direct3D

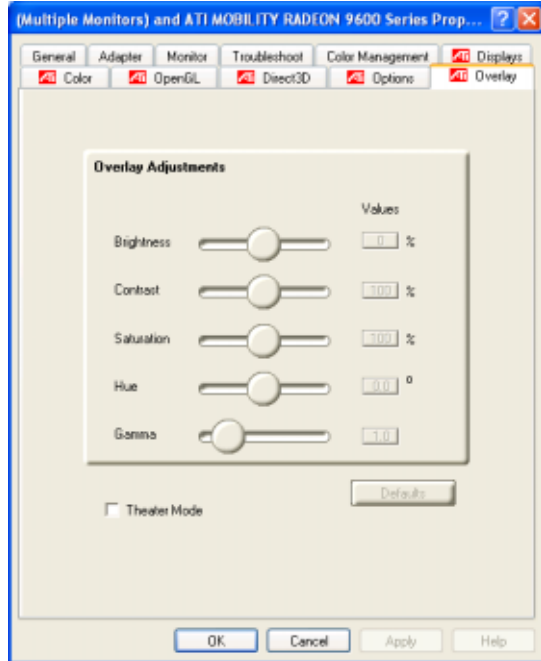
This page allows you to adjust quality and performance for applications using Direct3D.

Display Settings for Windows XP (Cont')



Options



This page allows you to enable or disable ATI quick access desktop and taskbar menus.

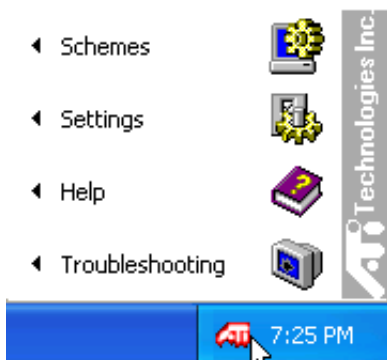


Overlay

This page allows you to adjust brightness, contrast, saturation, hue, and gamma for videos.

ATi Taskbar Icon

Bring up ATi quick-access menus by right clicking  on the task bar. You can quickly launch display-related property windows using the ATi taskbar. If you cannot see this icon, you may have to “Show hidden icons” by clicking on .



Right-click the ATi icon for many quick access menus.



Left-click the ATi icon for quick display resolution changing.



ASUS Wireless LAN

(Required Driver)

Topics Covered:

Wireless LAN Driver Setup

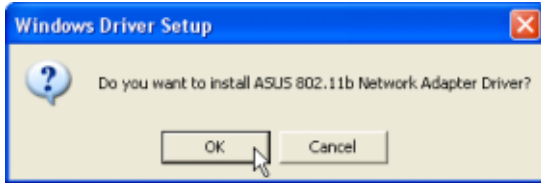
ASUS WLAN Utility Setup

ASUS WLAN Utility Quick Start

Screens will vary depending on your operating system but the contents should be the same.

Wireless LAN Driver Setup

Running setup will give you the following wizard:



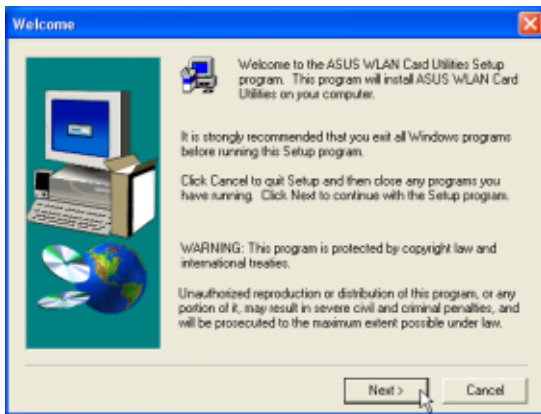
Click **OK** to install the modem driver.



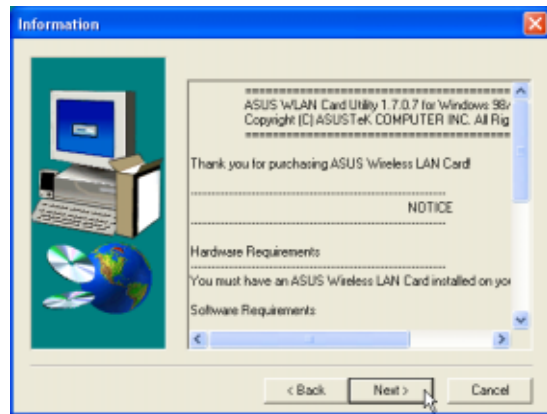
On the "Finish" screen, click **OK**.

ASUS WLAN Utility Setup

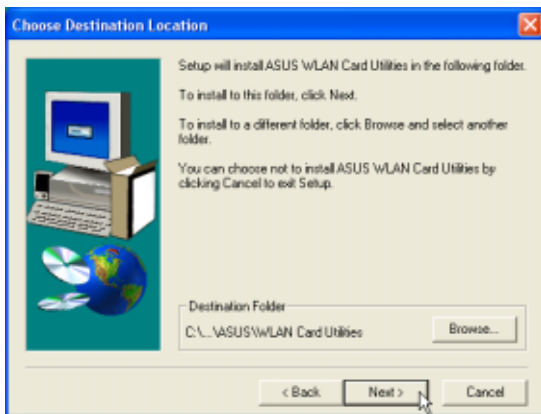
After installing driver, you need to install the wireless utility.



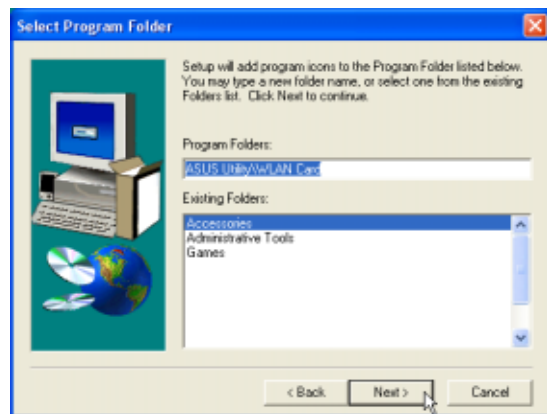
Click **Next** after reading the "Welcome" screen.



Click **Next** after reading the "Information" screen.

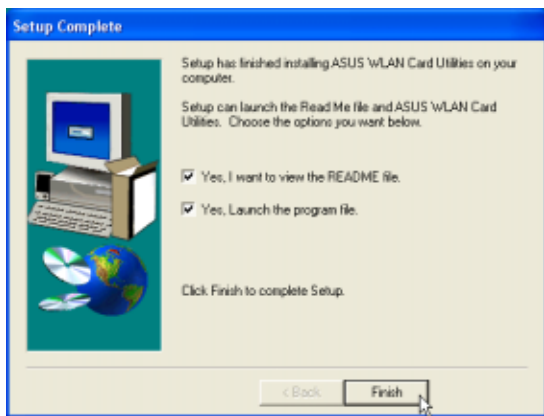


On the "Choose Destination Location" screen, click **Next** to continue or you may first change the destination folder.

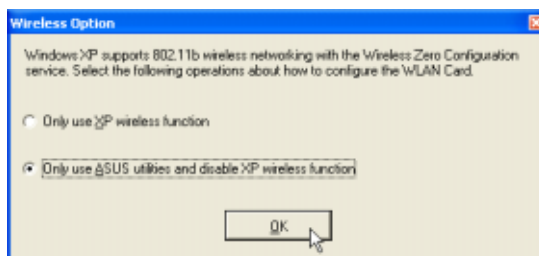


On the "Select Program Folder" screen, click **Next** to continue or enter a different folder name.

ASUS WLAN Utility Setup (Cont')



Click **Finish** on the "Setup Complete" screen.



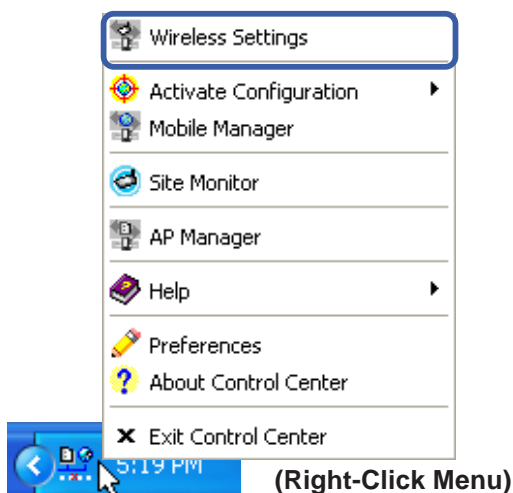
Select to use "...ASUS Utilities..." for added features while using the wireless LAN device.

ASUS WLAN Utility Quick Start

After installing the ASUS WLAN driver and utility, the utility will automatically start with Windows. If you need to start it manually, you can launch the utility using the desktop icon or through Windows **start**. You will need to make some wireless LAN settings before being able to use your wireless connection.

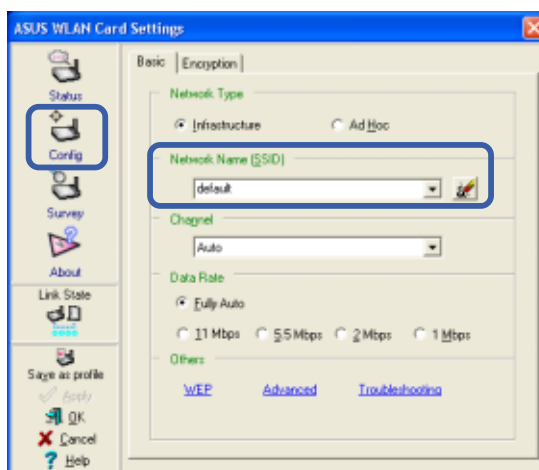


ASUS WLAN Control Center



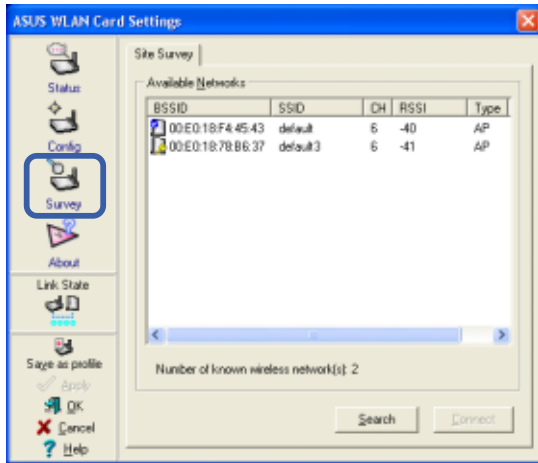
(Right-Click Menu)

Right-click the ASUS WLAN icon and select "Wireless Settings"

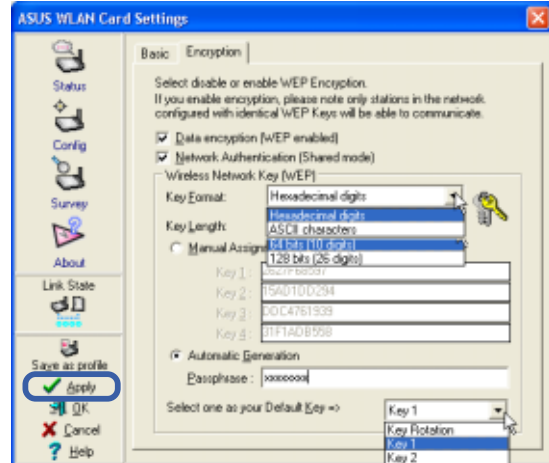


Set the Network Name (SSID) to the same name as the SSID set in your wireless access point.

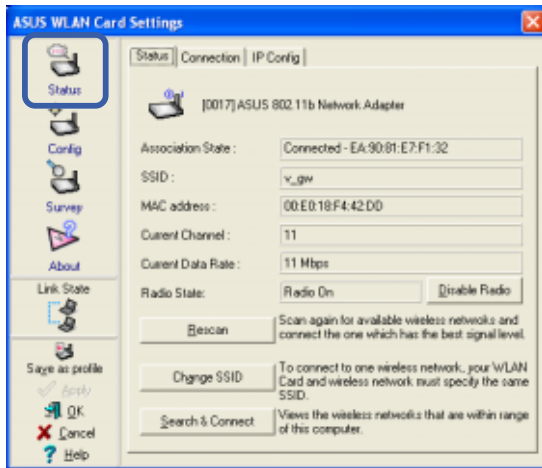
ASUS WLAN Utility Quick Start (Cont.)



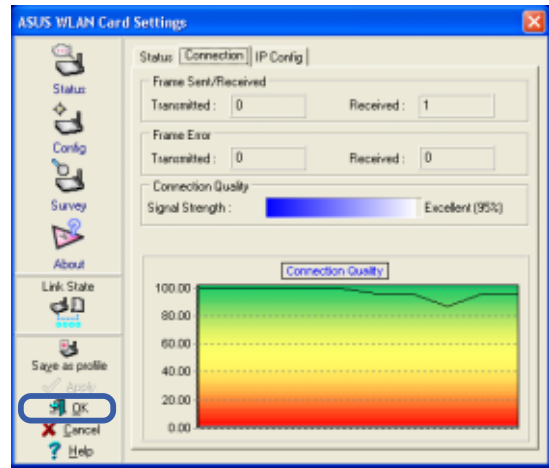
Use "Site Survey" if you don't know the name of your access point(s).



Encryption settings must also match those set in the access point. Talk with your network administrator if necessary. Click **Apply** to save your settings



Check the "Status" page to see the "Association State". It should show "Connected - xx:xx:xx:xx:xx:xx".



You can also see the connection quality on the "Connection" page. Click **OK** to exit the utility.

ATKACPI

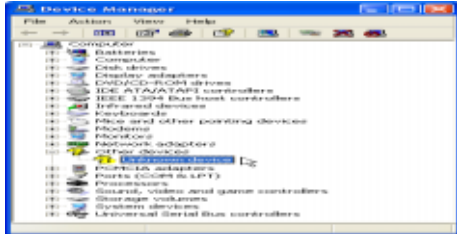
(Required Utility)

Topics Covered:
ATKACPI Setup

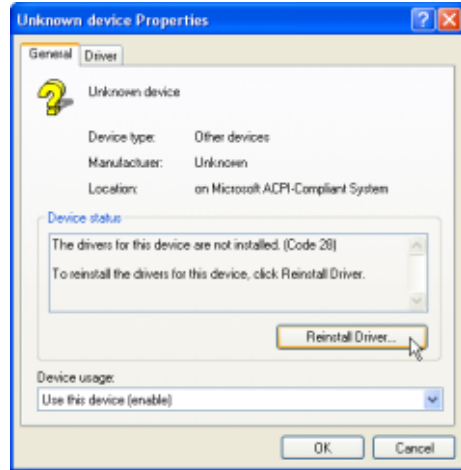
Screens will vary depending on your operating system but the contents should be the same.

ATKACPI Setup

This utility requires that you manually install it from Device Manager. No software operation is required.



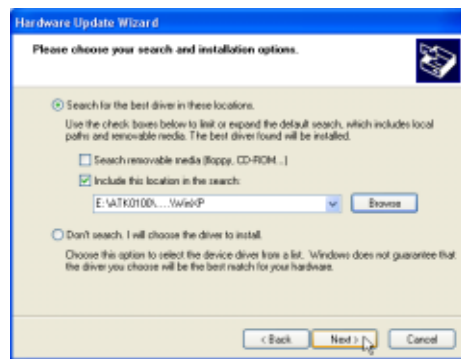
Double click **Unknown device**.



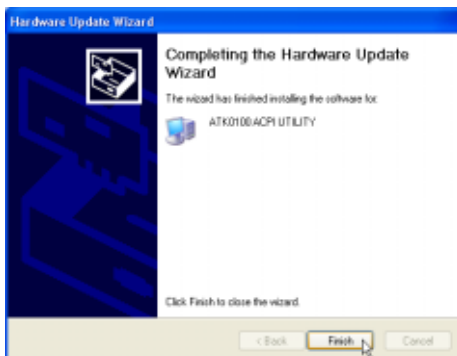
Click **Reinstall Driver**.



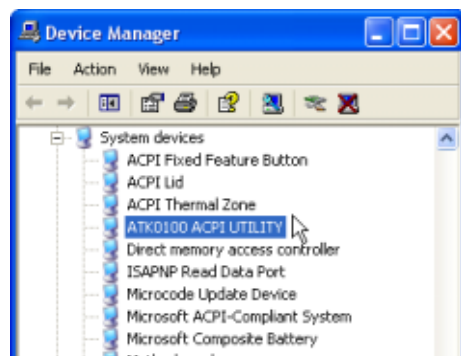
Select "Install from..." and click **Next**.



Browse to your operating system folder in the "ATK0100" folder and click **Next**.



Click **Finish** when setup is complete.



"ATK0100 ACPI UTILITY" should show under System devices.



Audio

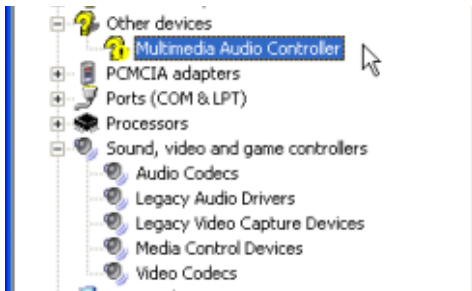
(Required Driver)

Topics Covered:
Audio Setup

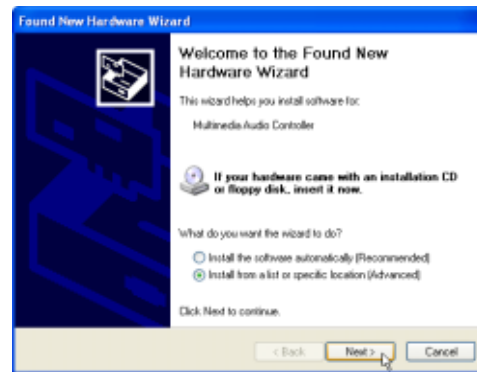
Screens will vary depending on your operating system but the contents should be the same.

Audio Setup

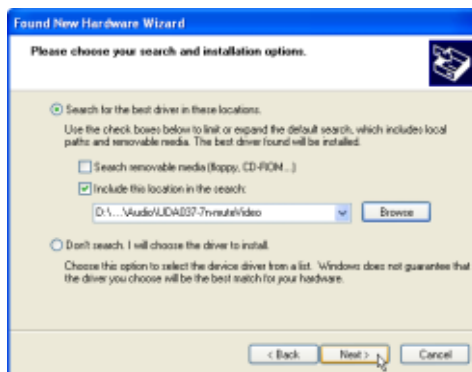
You will see a “Found New Hardware Wizard” if your device requires setup. If not your driver may already be installed by Windows. If your device is not working, you can manually install the driver as follows:



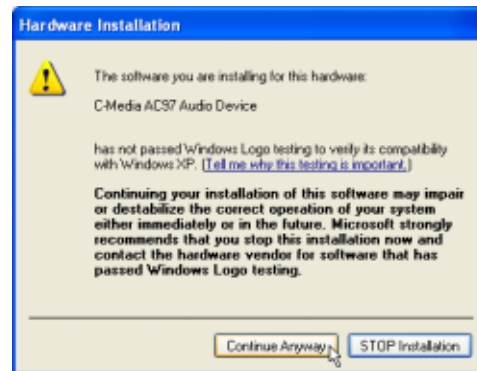
Normally, you will get a “Found New Hardware Wizard” as shown on the next step. If not, double click the Audio controller with a question mark.



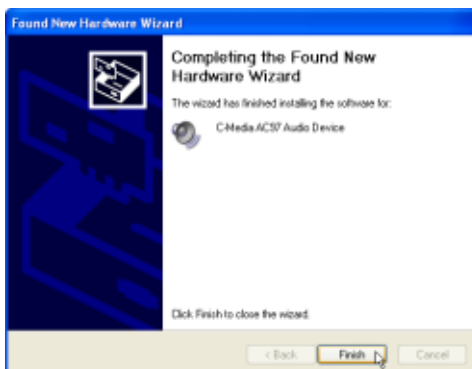
Select “Install from...” and click **Next**.



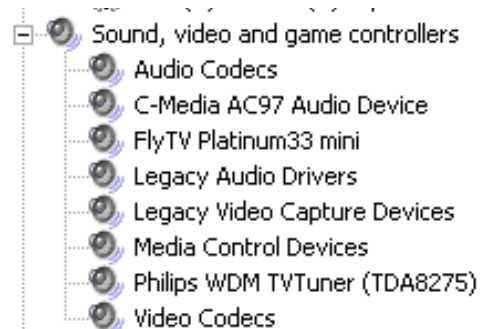
Browse to the folder shown here and click **Next**.



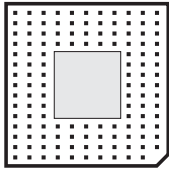
Click **Continue Anyway** because this driver has been tested to work with Windows XP.



Click **Finish**. Restarting Windows will start the USB Controller.



The installed audio driver will appear under “Sound, video and game controllers”.



CPU Hotfix

(Required Driver)

Topics Covered:

CPU Hotfix Setup 1

CPU Hotfix Setup 2

Screens will vary depending on your operating system but the contents should be the same.

CPU Hotfix Setup

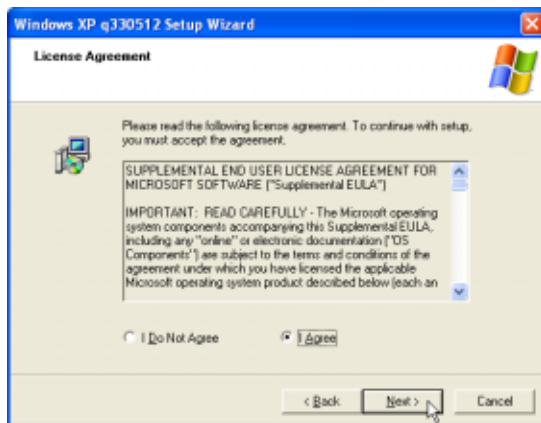
Running setup will give you the following wizard:



Click **OK** to begin the installation wizard.



Click **Next** on the Welcome screen to continue.



Select "I Agree" and click **Next** on the License Agreement.



Select "Do not restart now" and click **Finish** when setup is complete. (This allows you to install other drivers and utilities before restarting.)

Intel INF Update

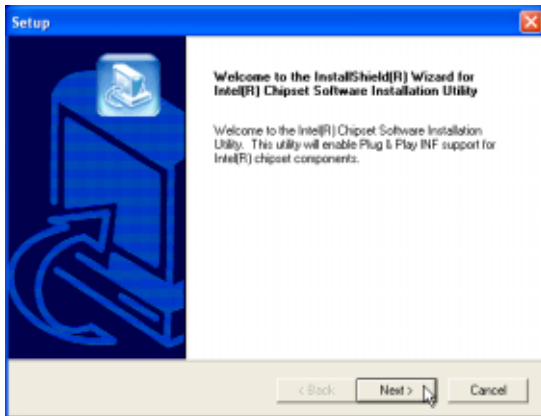
(Required Driver)

Topics Covered:
Intel INF Update Setup

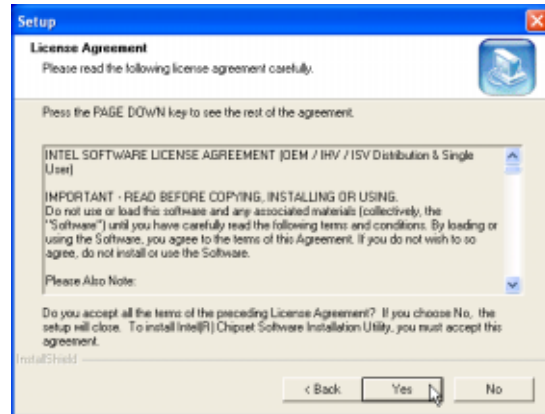
Screens will vary depending on your operating system but the contents should be the same.

Intel INF Update Setup

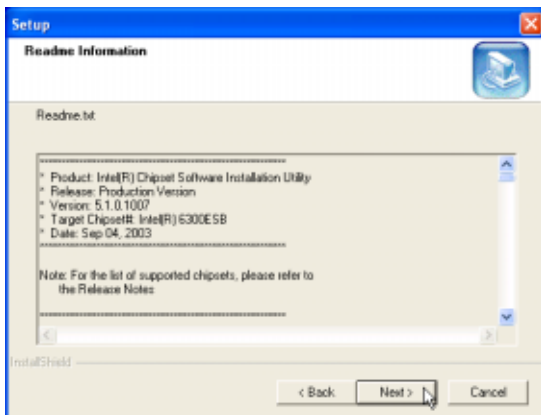
Running setup will give you the following wizard. No other configurations are necessary.



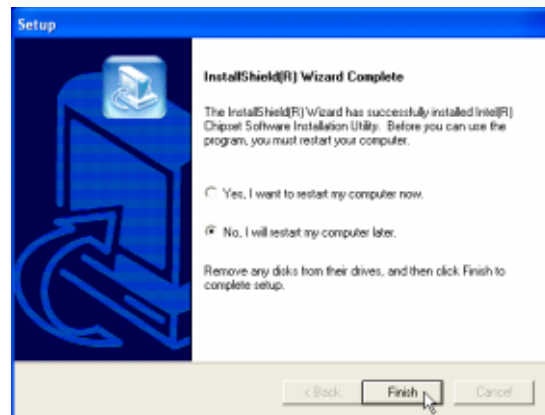
On the “Welcome” screen, click **Next** after reading the message.



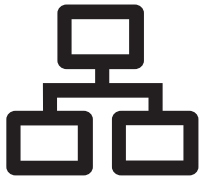
On the “License Agreement” screen, click **Yes** after reading the message.



On the “Readme” screen, click **Next** after reading the message.



Setup is now complete, select “No...” and click **Finish** in order to install other items.



LAN

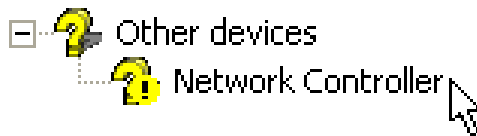
(Required Driver)

Topics Covered:
LAN Driver Setup
Configuring your LAN

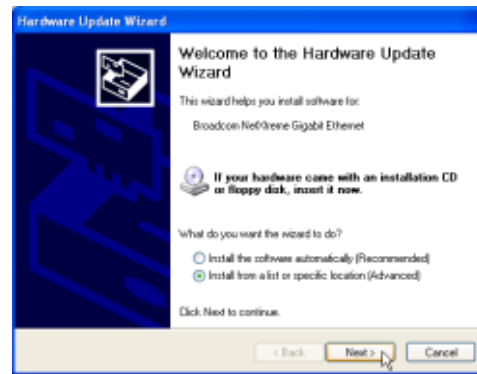
Screens will vary depending on your operating system but the contents should be the same.

LAN Driver Setup

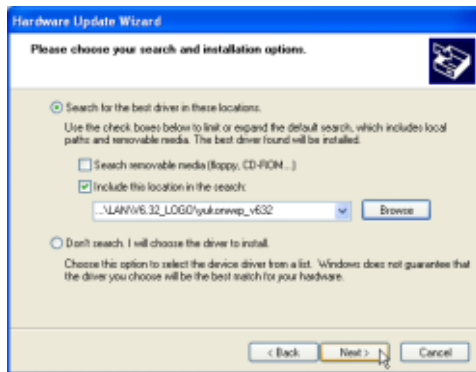
You will see a “Found New Hardware Wizard” if your device requires setup. If not your driver may already be installed by Windows. If your device is not working, you can manually install the driver as follows:



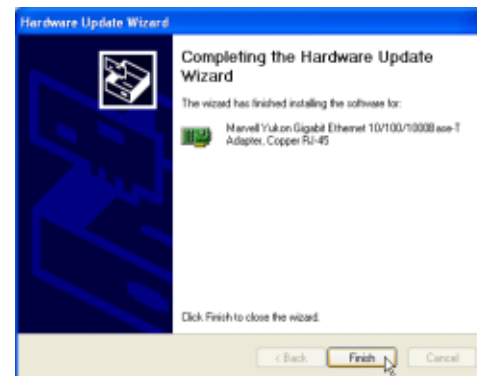
Normally, you will get a “Found New Hardware Wizard” as shown on the next step. If not, double click the Network Controller with a question mark in “Device Manager”.



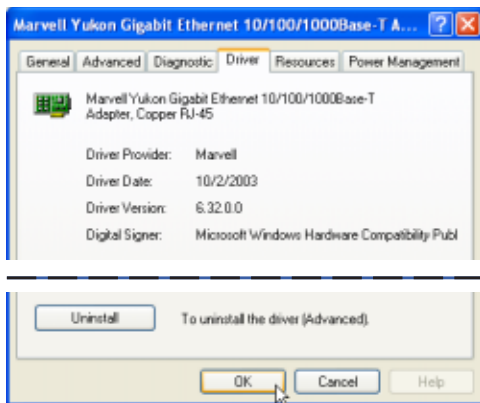
Select “Install from...” and click **Next**.



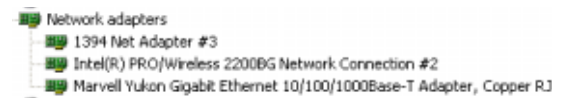
Browse to the appropriate folder and click **Next**. (path will vary depending on version)



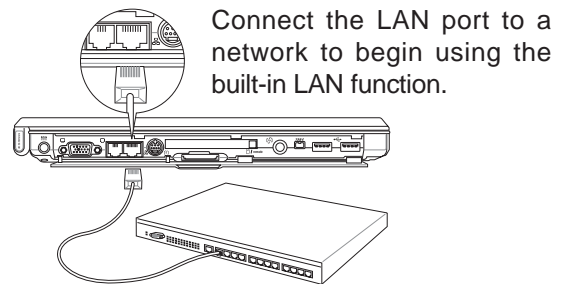
Click **Finish** when setup is complete.



Click **Close** to close the properties window.



The driver, when properly setup, will appear as the above in Device Manager.



Connect the LAN port to a network to begin using the built-in LAN function.

Configuring your LAN

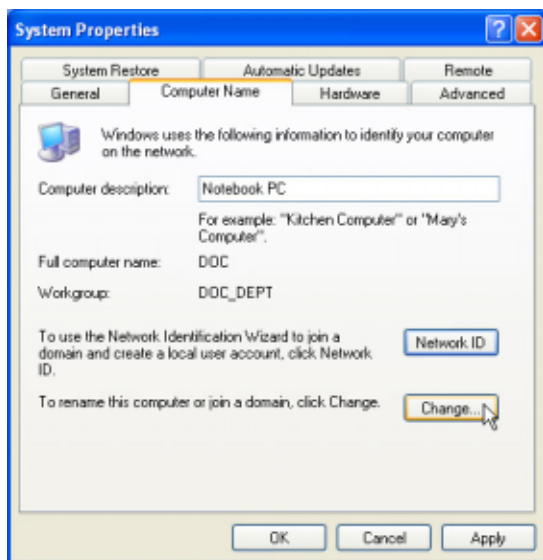
Joining a Domain or Workgroup (Windows XP)



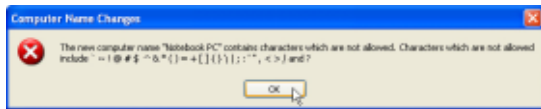
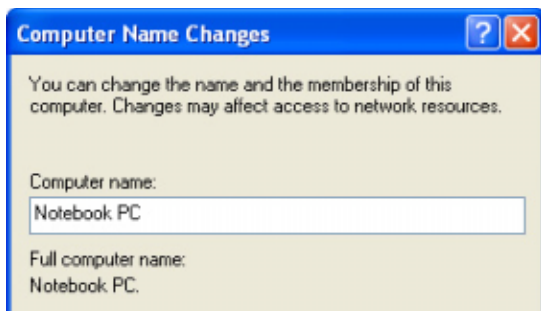
(1) Click **Start** and **My Computer**.



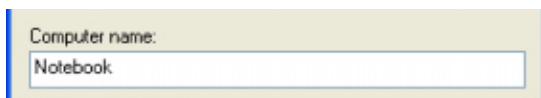
(2) Click **View system information**.



(3) Your computer name, workgroup or domain information is shown here. Click **Change** to view options.



You cannot use spaces or symbols in the computer name. In the example here, a warning is given when trying to use "Notebook PC". You can use the single word "Notebook" instead.

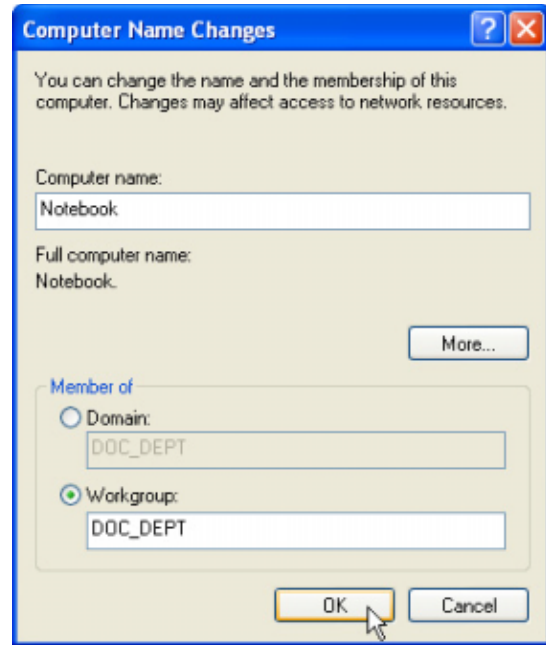


Joining a Domain or Workgroup (Cont')



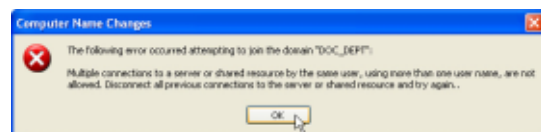
(4a) Domain:

The primary server in the domain will perform routing functions and security verifications for your computer. Select **Domain** and enter an existing domain you wish to join. **NOTE:** After clicking "OK", you will be asked for the Domain Controller's Administrator password to join the domain in Windows XP.



(4b) Workgroup:

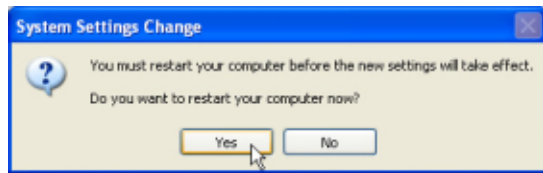
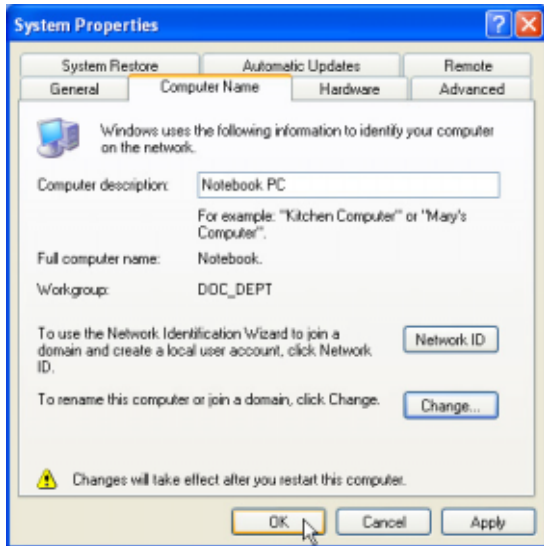
If your network does not have a domain or you are not authorized to join a domain, select **Workgroup** and type in an existing name or create your own (by typing an unused workgroup name)



Administrator Name or Password not accepted:

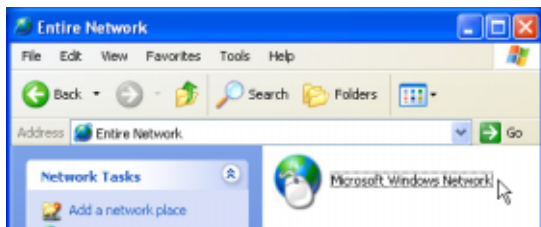
You cannot login with the Administrator name and use one password, then use the Administrator name with another password to add to a domain. You must login using another name. See Windows documentation to "Add New User" from User Accounts in the Control Panel.

Joining a Domain or Workgroup (Cont')

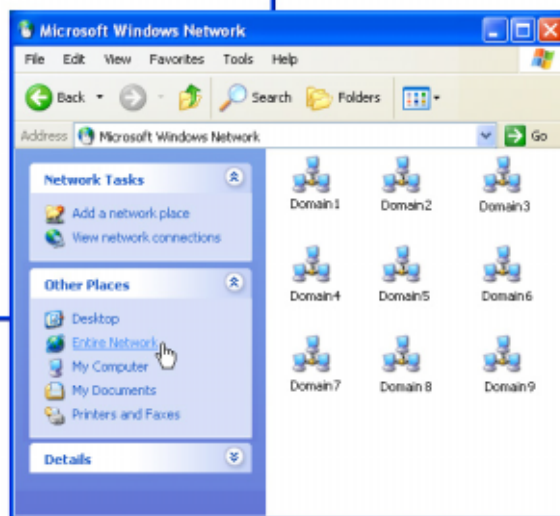


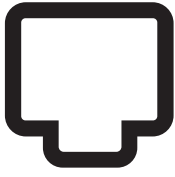
(5) After you restart your computer, you should see some contents through Entire Network.

Viewing Your Network



(6) Clicking on "My Network Places" will display networks which you have installed protocols for. Clicking a network protocol such as "MS Windows Network" will display all the servers available under that protocol.





Modem

(Required Driver)

Topics Covered:

Modem Setup - Automatic

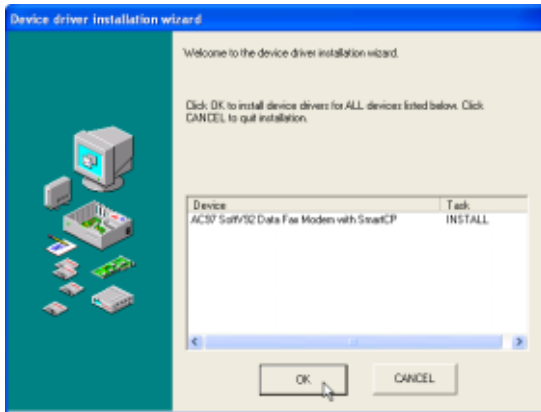
Modem Setup - Manual

Modem Configuration

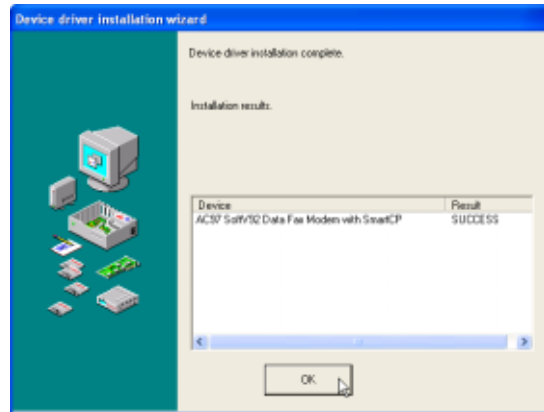
Screens will vary depending on your operating system but the contents should be the same.

Modem Setup - Automatic

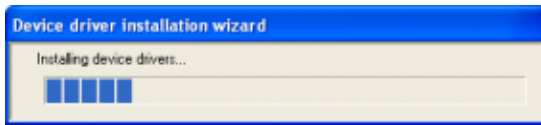
Running setup will give you the following wizard:



Click **OK** to install the modem driver.

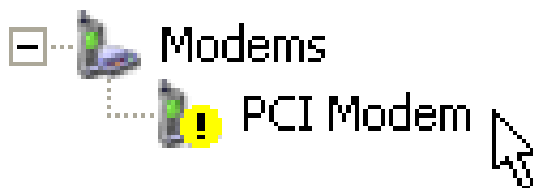


After setup is complete, click **OK** to close the wizard.



Modem Setup - Manual

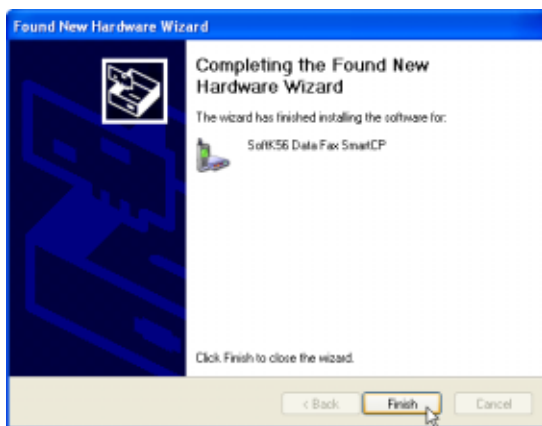
If you have a problem using your modem and there is an exclamation or question mark on “PCI Modem”, you can manually install the driver as follows:



Normally, you will get a “Found New Hardware Wizard” as shown on the next step. If not, double click the Network Controller with a question mark in “Device Manager”.



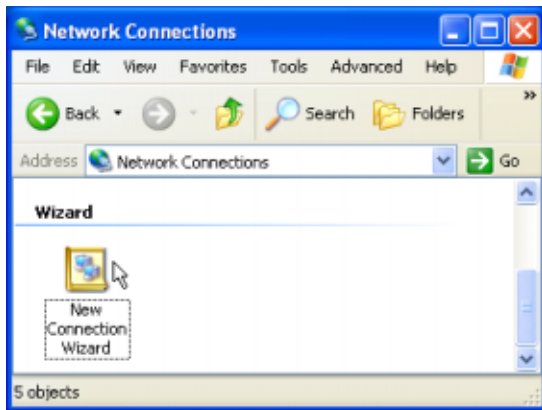
Select “Install from...” and click **Next**. Browse to the your Windows version under the “modem” folder and click **Next**.



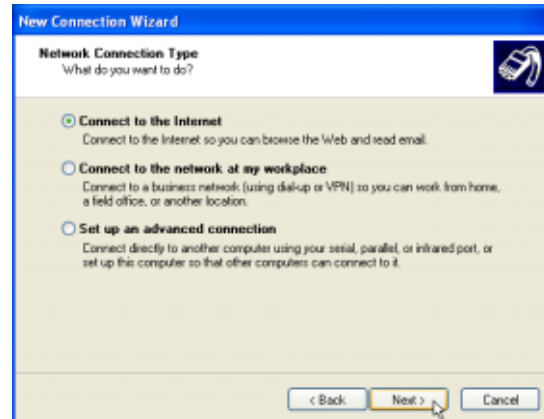
Click **Finish** when setup is complete.

Modem Configuration

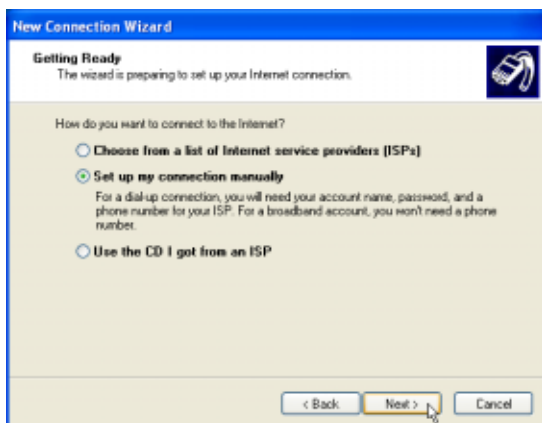
Use **New Connection Wizard** in “Network Connections” to start the configuration wizard to your modem. The New Connection Wizard also allows configuration for other communication devices (if available) such as LAN, ISDN, ADSL, or Bluetooth.



Double-click **New Connection Wizard** in Network Connections



Select “Connect to the Internet” and click **Next**.

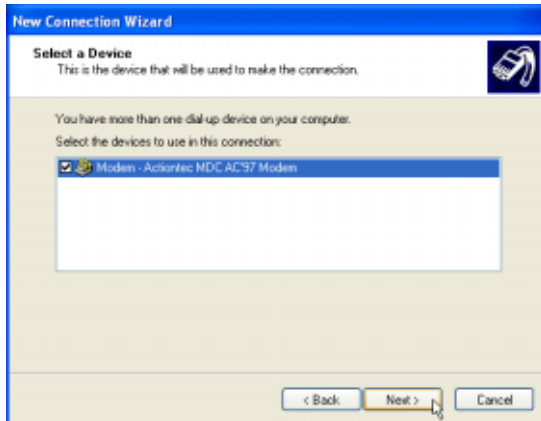


Select “Set up my connection manually” and click **Next**.



Select “Connect using a dial-up modem” and click **Next**.

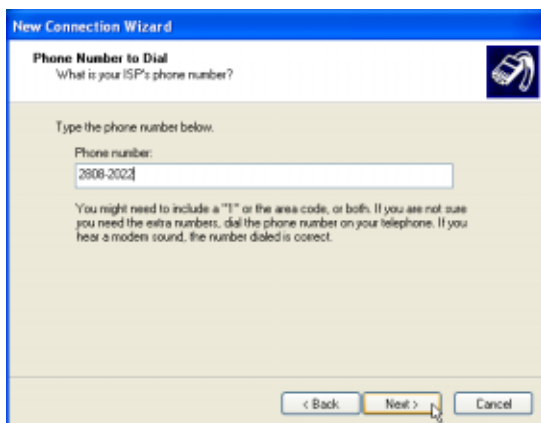
Modem Configuration (Cont')



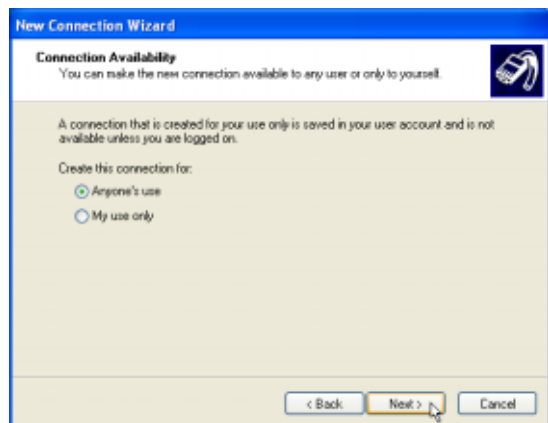
Select your modem and click **Next**.



Enter any name to represent your ISP.



Enter the dial up number for your ISP.



Select one of the security preferences and click **Next**.

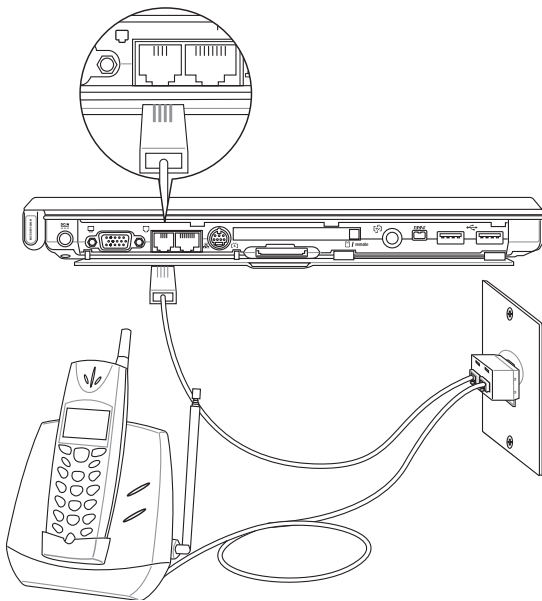
Modem Configuration (Cont')



Enter your ISP account name and password and click **Next**.



Select "Add a shortcut..." and click **Finish**.



Connect a telephone cable from your Notebook PC to a telephone jack.



When you click on the link, the connection window will show. Click **Dial** to connect to your ISP.



ChkMail

(Optional Utility)

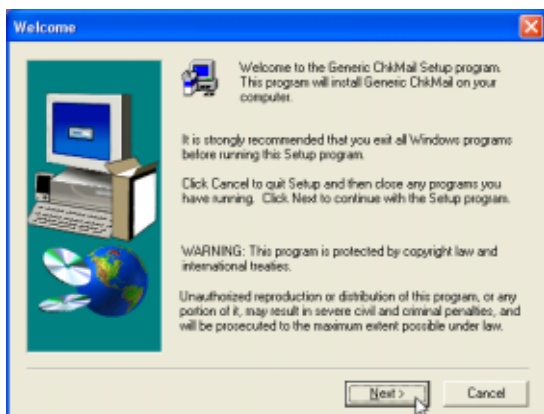
Topics Covered:

ChkMail Setup

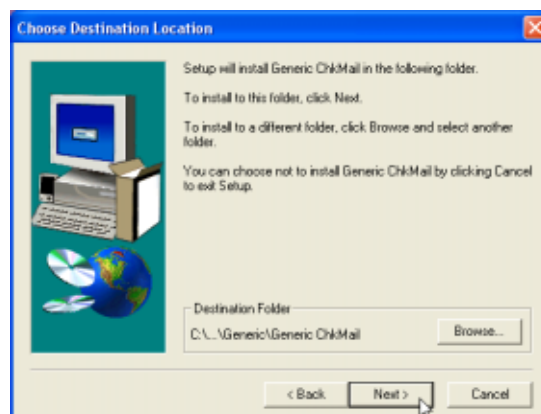
Screens will vary depending on your operating system but the contents should be the same.

ChkMail Setup

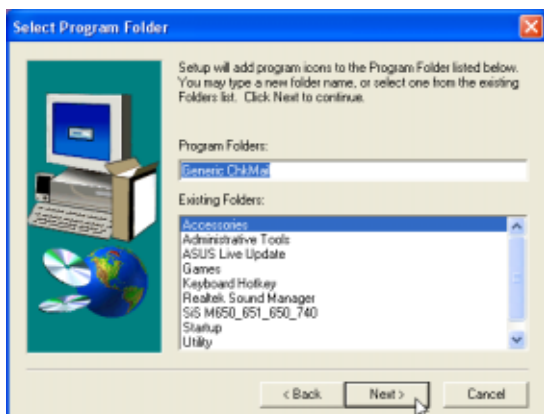
Running setup will give you the following wizard:



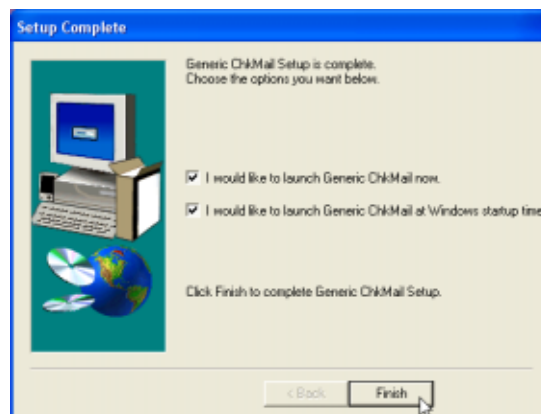
On the “Welcome” screen, click **Next** after reading the message.



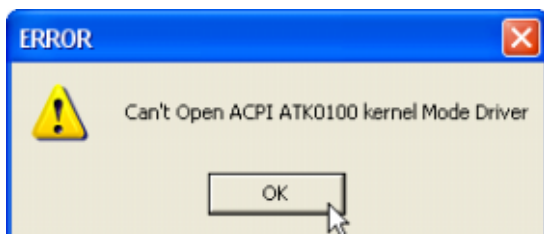
On the “Choose Destination Location” screen, click **Next** to continue or you may first change the destination folder.



On the “Select Program Folder” screen, click **Next** to continue or enter a different folder name.



On the “Setup Complete” screen, click **Finish**.



You must install ATK0100 before running this utility.



LiveUpdate

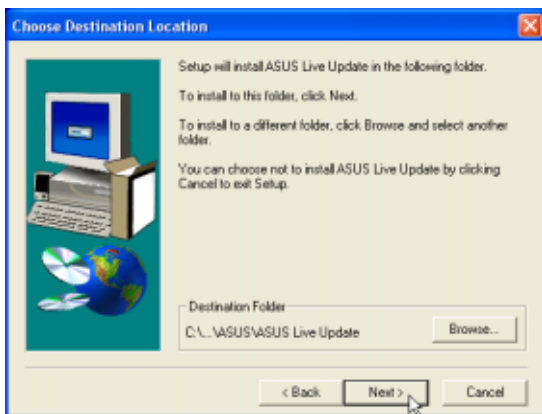
(Recommended Utility)

Topics Covered:
LiveUpdate Setup
Using LiveUpdate

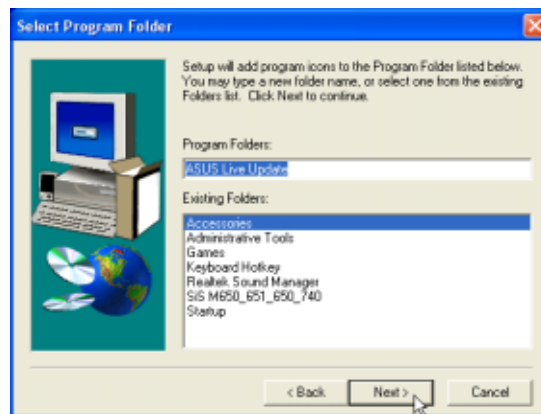
Screens will vary depending on your operating system but the contents should be the same.

LiveUpdate Setup

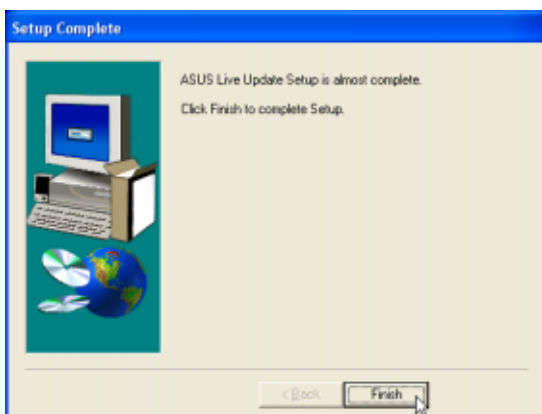
Running setup will give you the following wizard:



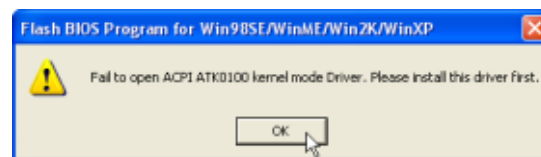
On the “Choose Destination Location” screen, click **Next** to continue or you may first change the destination folder.



On the “Select Program Folder” screen, click **Next** to continue or enter a different folder name.

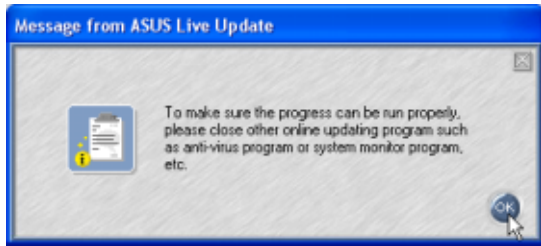


On the “Setup Complete” screen, click **Finish**.



If you don't have “ATK0100” installed, you will get this message. You must “ATK0100” before using this utility.

Using LiveUpdate



Close other software to ensure no conflicts.



Click **OK** to connect to the "Live Update" server.



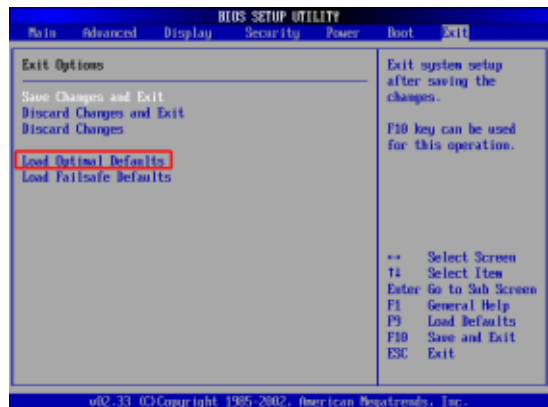
Newer versions will be shown. Check the items to update or select "Check all".



Click **OK** to download and install the update.



When update is complete, click **OK** to exit.



You may be instructed to "reset your BIOS". It entails pressing [F2] on bootup to enter BIOS setup and selecting **Load Setup Defaults**, and then **Exit Saving Changes** on the "Exit" menu.



PC-cillin 2002

(Recommended Utility)

Topics Covered:

PC-cillin 2002 Features

About Viruses

Technical Support

PC-cillin 2002 Feature Screens

Screens will vary depending on your operating system but the contents should be the same.

Welcome to PC-cillin 2002

Trend Micro PC-cillin 2002 provides next generation secure computing for today's personal computers. More than just antivirus software, PC-cillin includes a Personal Firewall, Site filter, Internet mail scanning, and more for all your secure computing needs.

Designed for the home or small office user, the friendly interface lets you quickly become familiar with all the powerful features of the software. However, the program behind the interface uses the latest technology and provides you with protection from the nastiest viruses, sneakiest Trojans, and the meanest hackers. With firewall technology, the Trojan System Cleaner tool, and more, PC-cillin gives you peace of mind whenever you connect to the Internet. And now that Trend Micro's award winning ICSA approved scan engine also includes ScriptTrap technology, personal computing has never been more secure.

Here's what PC-cillin will do "straight out of the box":

- Checks for viruses every time you open, copy, move, or save a file
- Protects against downloading infected files from the Internet or FTP sites
- Guards against malicious Java applets and Microsoft ActiveX controls while surfing the Web
- Detects and cleans live Trojans installed on your system
- Monitors your Microsoft Word and Microsoft Excel sessions for macro viruses, using MacroTrap
- Scans and cleans all files on your hard drive
- Scans all program files for viruses
- Checks all your saved documents for macro viruses

Here's what you can do with just a click of a button:

- Scan every file on your system and clean any infected files
- Scan any file from Windows Explorer or My Computer by right-clicking the file icon
- Scan floppy disks and clean any infected files
- Check all of your Word and Excel document(s) for macro viruses
- Scan your email attachments as they are being downloaded from an Internet (POP3) mail server
- Protect your computer against attacks from the Internet using a combination of cloaking and firewall functions
- Make whatever Web sites you want "off limits" to other users of the computer
- Protect your handheld devices with updated Personal Digital Assistant (PDA) virus pattern files

Personal Firewall

PC-cillin 2002 provides secure Internet computing with its new Personal Firewall feature. Easy to operate, the Personal Firewall protects your computer from unwanted Internet connections. The Personal Firewall is ideal for computers using always-on broadband (DSL, cable modem) connections, or for those computers that are often online. Even computers that only connect to the Internet for short periods of time are still vulnerable to hacker attacks and need protection.

With adjustable security levels, a trusted site list, and a port blocking function, the Personal Firewall gives you the control to keep your computer safe from malicious code like spyware and Trojan horses. The Personal Firewall is comprised of the following components:

Cloaking: Prevents your computer from being found. Cloaking hides the entry points (ports) of your computer making it appear to be disconnected from a network. Hackers using techniques like NetBIOS browsing, port scanning, or ICMP packet special processing will be unable to locate your computer.

Firewall: Provides a barrier between your computer and the network (LAN, Internet). This barrier examines and filters network traffic coming into your computer. By filtering network traffic, the firewall prevents malicious programs or files from entering your computer. The firewall protects against attacks hackers commonly use including: Ping of Death, IP conflict, SYN flooding, and others.

Trojan Backdoor Blocking: If a hacker has already broken into your system, he or she could have installed a Trojan (small hidden program) onto your computer (unlike viruses, Trojans do not replicate themselves, but can still wreak havoc on your system). To avoid being traced, the hacker can then use your computer to attack other computers. The Trojan Backdoor Blocking function prevents hackers from using your computer by blocking Back Orifice, Back Orifice 2000, Net Bus, Deep Throat and other known back door programs.

There may be Web sites that you know are safe and will not attack your computer. Using the Trusted Sites function, the Personal Firewall lets you add these safe sites to a list. Your computer can connect to any Web site on this list because they will not be filtered.

PC-cillin for Wireless

Malicious code and other threats hidden inside files, email, or on the Web can enter your Palm, Pocket PC, or EPOC device during beaming, synchronization, or Internet access. Trend Micro PC-cillin for Wireless provides portable, easy-to-use antivirus security for wireless devices; to defend against potential threats. Best of all, PC-cillin for Wireless is bundled with PC-cillin 2002 providing you with secure computing on both your desktop and handheld.

Trojan System Cleaner

PC-cillin automatically runs the Trojan System Cleaner (TSC) during initial installation, and every time Real-time Scan runs. The TSC detects the activity of Trojan horse programs, recovers system files which are modified by Trojans, stop their processes, and deletes files dropped from Trojans.

Traditional antivirus products only scan "files", they open files and check for virus code. But they don't check and clean system files and can't clean or delete Trojan horse programs (also known as Trojans) if it is already run in the system.

The TSC uses patterns to define how to clean a Trojan. These patterns are built into Trend Micro virus pattern files and are kept up-to-date. Whenever TSC is executed, it finds the newest pattern file and tries to read Trojan clean section from the pattern file.

ScriptTrap Technology

With the addition of ScriptTrap technology, PC-cillin now more than ever provides rock-solid protection for your computer. PC-cillin not only guards against harmful known script-based viruses ("I Love You" and "Anna Kournikova"), but can also protect your PC from new, unknown script-based threats.

Using the following processes, ScriptTrap automatically scans for scripting viruses based on "what they do" rather than how they are written:

lexical analysis- divides the script's source code into components, called tokens, based on punctuation and other keys.

semantic parsing- attempts to determine the meaning of each component.

Emergency Lock

PC-cillin also includes an Internet Emergency Lock function that lets you immediately disable all Internet activity if you suspect an attack. Enabling the Emergency Lock function immediately stops all traffic to and from the Internet.

User Interface

Designed for the home or small office user, the program's friendly interface quickly familiarizes you with the powerful features of PC-cillin 2002. The interface now includes a Simple and Standard mode. Using a tab interface, you can easily switch between the two modes.

Simple mode: Perform common PC-cillin tasks such as: view a simplified version of your system status, and scan all drives. In addition, you can update and register your software.

Standard mode: Access more advanced PC-cillin 2002 functions including: viewing your system status in more detail, selectively scanning folders, synchronizing your PDA, quarantining files, and viewing logs. In the Standard mode, as in the Simple mode, you can also update and register your software.

About Intelligent Update

Intelligent Update automatically searches for and downloads the latest files for PC-cillin 2002. This includes pattern and program files for both the main program and PC-cillin for Wireless. In addition, Intelligent Update ensures you have the latest Personal Firewall rules. This powerful function keeps PC-cillin and all its components updated; offering you maximum protection with minimal user intervention.

Once your computer is running, PC-cillin checks for an Internet connection. When this feature is enabled and your computer is online, PC-cillin automatically connects to the Trend Micro server to check if the latest update is available. If newer components are on the server, a pop-up window appears asking if you want to start downloading. If you choose not to download immediately, the pop-up window reappears in 10 minutes.

New product registration method

PC-cillin 2002 offers a new way to register your software online. On our Registration Web page, simply type your name and email address in the appropriate fields, receive your License Key via email, and insert it into the correct field on the Register Now screen of the PC-cillin window.

Registration only takes a few minutes and Trend Micro provides technical support, virus pattern downloads, and program updates for one year to all registered users, after which you must purchase renewal maintenance.

About viruses

A computer virus is a program that replicates. To do so, it needs to attach itself to other program files (for example, .exe, .com, .dll) and execute whenever the host program executes. Beyond simple replication, a virus almost always seeks to fulfill another purpose: to cause damage.

Called the damage routine, or payload, the destructive portion of a virus can range from overwriting critical information kept on your hard disk's partition table to scrambling the numbers in your spreadsheets to just taunting you with sounds, pictures, or obnoxious effects.

It is worth bearing in mind, however, that even without a "damage routine," viruses allowed to run unabated will continue to propagate--consuming system memory, disk space, slowing network traffic and generally degrading performance. Besides, virus code is often buggy and can also be the source of mysterious system problems that take weeks to understand. So, whether a virus is harmful or not, its presence on your system can lead to instability and should not be tolerated.

Some viruses, in conjunction with "logic bombs," do not make their presence known for months. Instead of causing damage right away, these viruses do nothing but replicate--until the preordained trigger day or event when they unleash their damage routines on the host system or across a network.

To learn more about any particular virus, or about viruses in general, you can access Trend Micro's online Virus Encyclopedia at: www.antivirus.com/.

How viruses are created

Until a few years ago, creating a virus required knowledge of a computer programming language. Today anyone with even a little programming knowledge can create a virus. Usually, though, misguided individuals who want to cause widespread, random damage to computers create viruses.

In the typical scenario, it is an individual, working alone, who writes a virus program and then introduces it onto a single computer, network server, or the Internet. Why? Ego, revenge, sabotage, and basic disgruntlement have all been cited as motivations. Recently, do-it-yourself "virus kits" have been popping up on the Internet, and macro scripts are becoming both easier to learn and more powerful, putting the capacity to engineer viruses in the hands of nearly everyone. In other words, no single, likely profile exists by which virus writers can be described or understood.

So whatever the reason one may have for writing a virus, the important thing is to make certain your company is not victimized, that data you are responsible for is safe, and that precious time is not wasted hunting down (and cleaning up after) viruses.

Accessing the Trend Micro Virus Encyclopedia

PC-cillin includes access to the online Trend Micro virus encyclopedia, organized by name and virus type. Use it to find out about tens of thousands of individual viruses, including the typical symptoms of a given virus, its infection procedure, and the damage routine.

With the growing prevalence of Macro viruses, we have bolstered the number of Macro virus descriptions included in the encyclopedia to well over 2000.

Of course, PC-cillin, which uses Trend's award-winning, 32-bit, multi-threading scan engine, is capable of detecting all viruses that are known to be in circulation, plus the many thousands more that exist as "proof of concept" only in researcher's virus labs and on hacker's computers.

To access the Trend Micro Virus Encyclopedia, on the PC-cillin menu bar, click Security Info > Encyclopedia..

Viewing the Trend Micro Virus list

The Virus Information Center contains a list of the Real-time top ten viruses. In addition, you can view updated Security Alerts and Virus Advisories.

To access the Trend Micro Virus list, on the PC-cillin menu bar click, Security Info > Virus List.

Contacting Technical Support

Trend Micro provides technical support, virus pattern downloads, and program updates for one year to all registered users, after which you must purchase renewal maintenance.

Send an email to our highly trained technical support staff or visit our Web site to receive technical support.

Trend Micro Technical Support

Email: support@trendmicro.com

URL: www.antivirus.com

To speed up your problem resolution, when you contact our staff please provide as much of the following information as you can:

- Product serial number
- PC-cillin program, scan engine, pattern file, version number
- OS name and version
- Internet connection type
- Exact text of any error message given
- Steps to reproduce the problem

Before Contacting Technical Support






While our technical support staff is always pleased to handle your inquiries, there are a couple things you can do to quickly find the answer you are seeking.

- Check the documentation: the manual and online help provide comprehensive information about PC-cillin. Search both documents to see if they contain your solution.
- Visit our technical support Web site: our technical support Web site contains the most up-to-date information about all Trend Micro products. Other inquiries that were already answered are also posted on the support Web site.

PC-cillin 2002 Feature Screens

PC-cillin 2002 Real-time Monitor

The Real-time Monitor is the quickest way to access certain functions, for example to display the PC-cillin or Settings windows. With the Real-time Monitor, you know at a glance if real-time scanning is enabled (the lightning streak icon is red) or disabled (the lightning streak icon is grey).

-  The Emergency Lock is activated. All incoming and outgoing Internet traffic is halted.
-  PC-cillin is connecting to the Trend Micro server to download the latest updates.
-  Your computer is currently under attack.
-  The real-time scanning function is enabled.
-  The real-time scanning function is disabled.

Configuration Screen

Double click the PC-cillin icon on the taskbar to bring up the real-time scan information page. Or right click and select "Configuration".

The PC-cillin software has many features to protect you from Virus threats. Use the **Help** for more information.

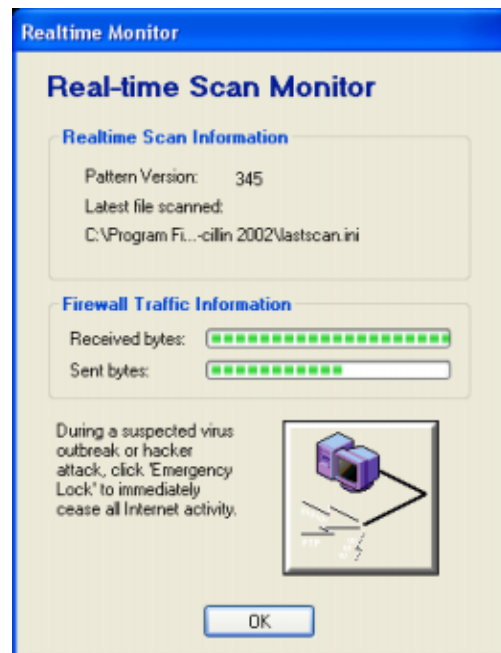


Real-time Status

Select "Real-time Status" by right clicking on the PC-cillin icon and you will bring up information on your virus pattern version, last scanned file, and network activity.

Stop Network Activity

Click the large button with a computer and broken network cable to stop all network activity if you suspect harmful activities are being made to your computer from the network.





Power4 Gear+

Topics Covered:

Power4 Gear+ Setup

Benefits of Power4 Gear+

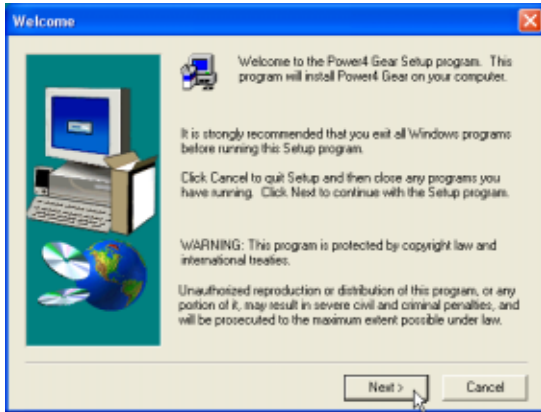
Power4 Gear+ Interface

Power4 Gear+ Configuration

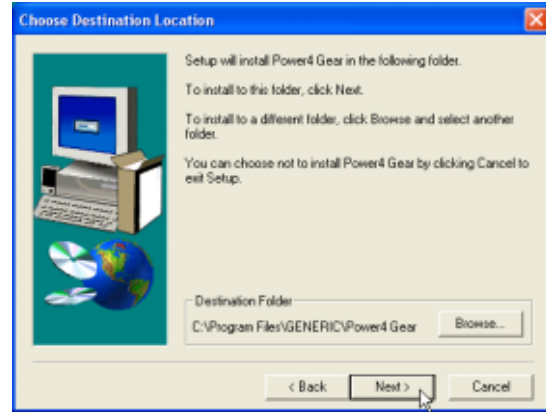
Screens will vary depending on your operating system but the contents should be the same.

Power4 Gear+ Setup

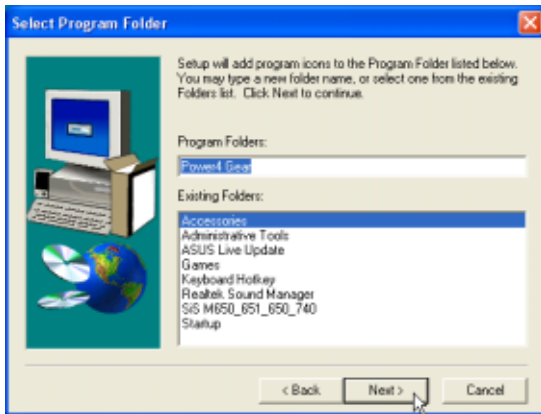
Running setup will give you the following wizard:



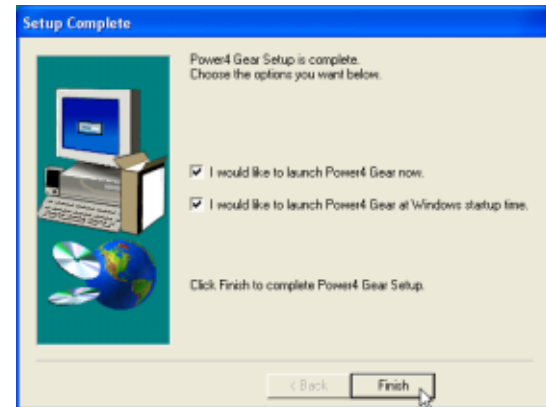
On the “Welcome” screen, click **Next** after reading the message.



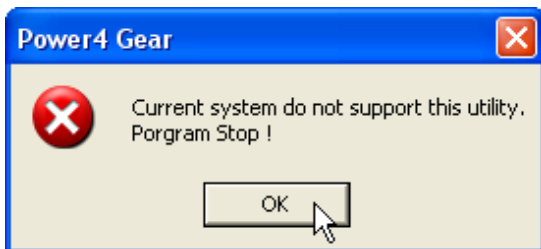
On the “Select Program Folder” screen, click **Next** to continue or enter a different folder name.



On the “Select Program Folder” screen, click **Next** to continue or enter a different folder name.



On the “Setup Complete” screen, click **Finish**.



If you don't have “ATK0100” installed, you will get this message. You must “ATK0100” before using this utility.


Benefits of Power4 Gear+









Power4 Gear+ gives you control over power consumption items by allowing you to instantly “shift” from one power consumption scheme to another. The preferences or “gears” are shown below. You can change or “shift” gears by using the Power4 Gear+ button above the keyboard or by using the task bar icon. Power4 Gear+ can also be automatically activated when AC power is removed.

Power4 Gear+ Interface

Understanding the Power4 Gear+ buttons

Press the Power4 Gear+ button above the taskbar to shift between the four gears as labeled below. The icon

 may vary depending on your Notebook PC model.

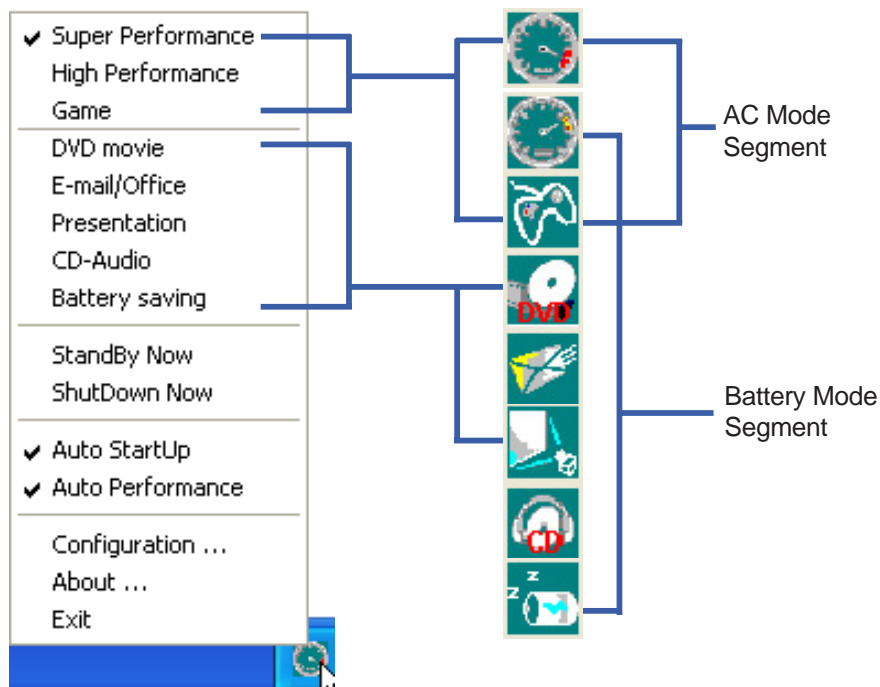
Icons	Mode Names	Power Segment
	Super Performance	AC
	High Performance	AC/DC
	Game Performance	AC/DC
	DVD Movie Performance	DC
	Email/Office Performance	DC
	Presentation Performance	DC
	Audio Listening Performance	DC
	Battery-Saving Performance	DC

Using the task bar icon

Right-click the icon on the taskbar for quick access to Power4 Gear+ settings.

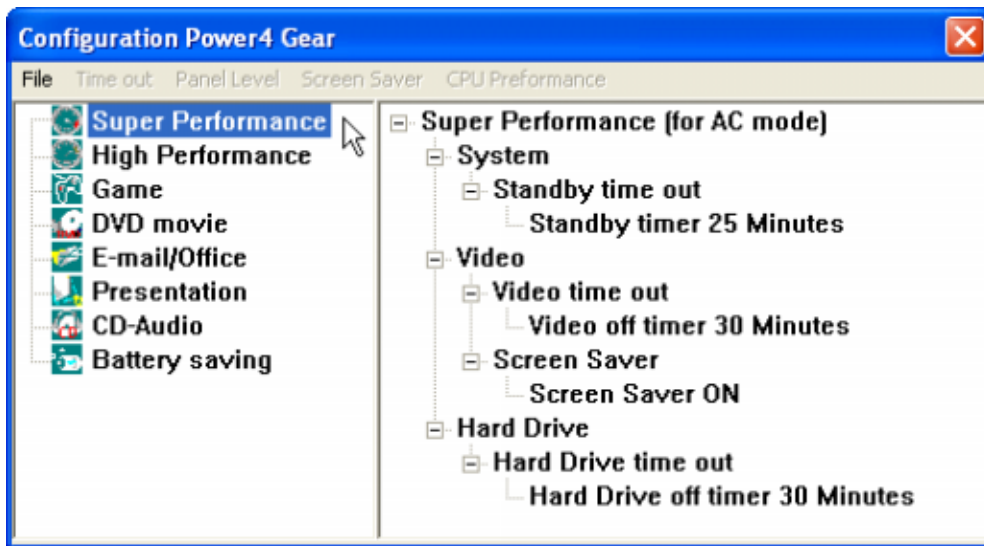
Power4 Gear+ Modes and Power Segments

When you are using an AC adapter, the Power4 Gear+ button will allow switching between three modes as shown above. When you remove the AC adapter, the Power4 Gear+ button will allow switching between seven modes as shown above. When you remove or apply the AC adapter, Power4 Gear+ will automatically shift you up or down into the proper mode segment.



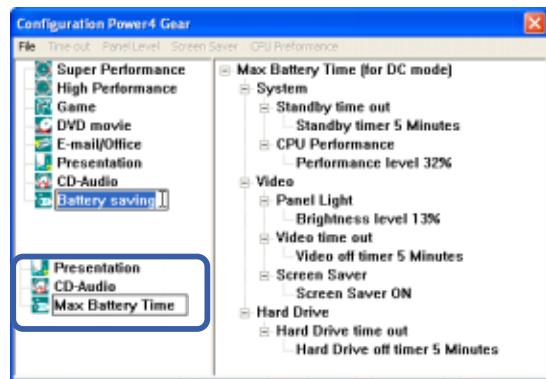
Power4 Gear+ Configuration

Double click an item to bring up a menu of selections and click on a value to change. To save, select “Save Configuration” form the “File” pull-down menu. If you did not save, you will be prompted to when you exit.



Renaming Settings

You can rename the power saving levels as you like using the same method to rename files or folders in Windows. In the example on the right, the brightness level is decreased to 13% and the name is changed to “Max Battery Time”.



Power Saving Details

Double click an item to view possible settings. Some power saving items are only available under certain modes.

CPU Performance

- System
 - Standby time out
 - Standby timer 5 Minutes
 - CPU Performance
 - Performance level 32%
 - 100%
 - 64%
 - 32%

System Standby Timer

- System
 - Standby time out
 - Standby timer 25 Minutes
 - 1 Minute
 - 2 Minutes
 - 3 Minutes
 - 5 Minutes
 - 10 Minutes
 - 15 Minutes
 - 20 Minutes
 - 25 Minutes
 - 30 Minutes
 - 45 Minutes
 - 1 Hour
 - 2 Hours
 - 3 Hours
 - 4 Hours
 - 5 Hours
 - Never

Hard Drive Off Timer

- Hard Drive
 - Hard Drive time out
 - Hard Drive off timer 30 Minutes
 - 1 Minute
 - 2 Minutes
 - 3 Minutes
 - 5 Minutes
 - 10 Minutes
 - 15 Minutes
 - 20 Minutes
 - 25 Minutes
 - 30 Minutes
 - 45 Minutes
 - 1 Hour
 - 2 Hours
 - 3 Hours
 - 4 Hours
 - 5 Hours
 - Never

Display Panel Brightness

- Video
 - Panel Light
 - Brightness level 33%
 - 6%
 - 13%
 - 20%
 - 26%
 - 33%
 - 40%
 - 46%
 - 53%
 - 60%
 - 66%
 - 73%
 - 80%
 - 86%
 - 93%
 - 100%

Display Panel Off Timer

- Video
 - Video time out
 - Video off timer 30 Minutes
 - 1 Minute
 - 2 Minutes
 - 3 Minutes
 - 5 Minutes
 - 10 Minutes
 - 15 Minutes
 - 20 Minutes
 - 25 Minutes
 - 30 Minutes
 - 45 Minutes
 - 1 Hour
 - 2 Hours
 - 3 Hours
 - 4 Hours
 - 5 Hours
 - Never



Probe2

Topics Covered:

Probe2 Setup

Probe2 Reference

Starting Probe2

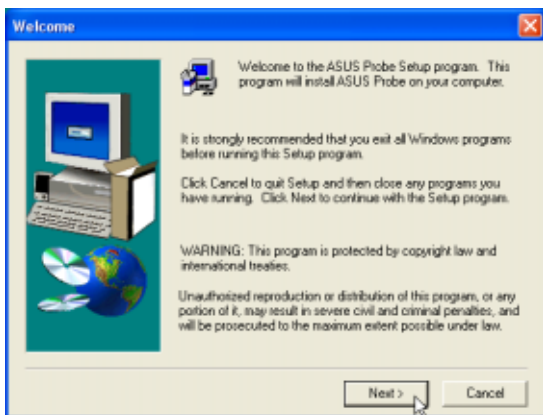
Using Probe2 Monitoring

Probe2 Task Bar Icon

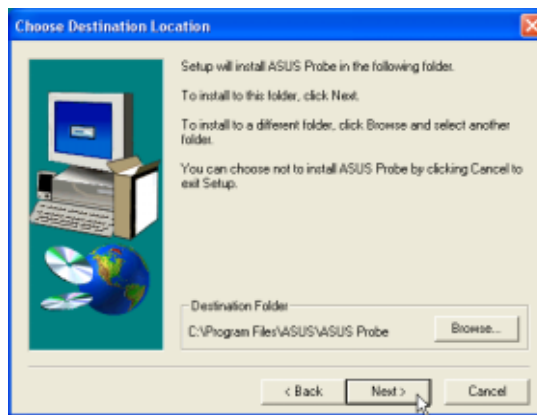
Screens will vary depending on your operating system but the contents should be the same.

Probe2 Setup

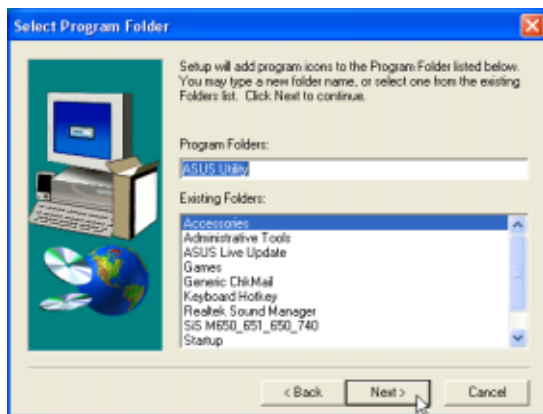
Running setup will give you the following wizard:



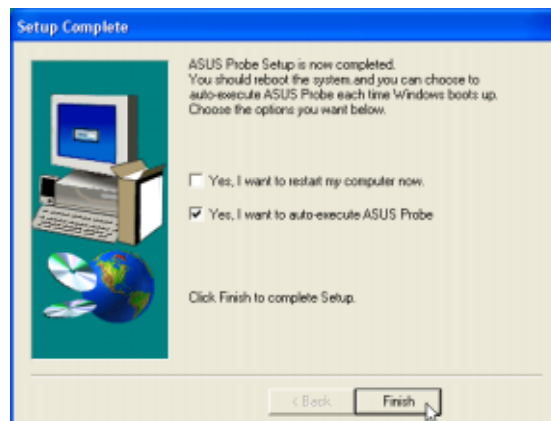
On the “Welcome” screen, click **Next** after reading the message.



On “Choose Destination Location”, click **Next** to continue or enter another destination folder.



On the “Select Program Folder” screen, click **Next** to continue or enter a different folder name.



On the “Setup Complete” screen, click **Finish**.

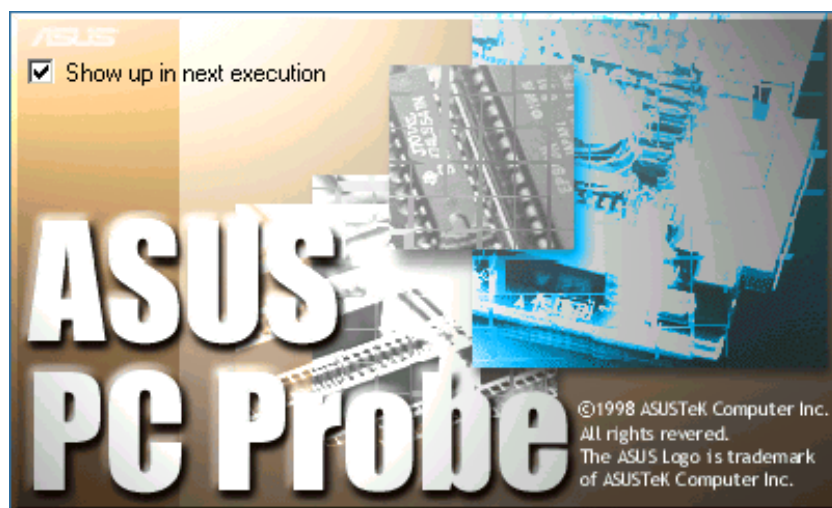
Probe2 Reference


Probe2 is a convenient utility to continuously monitor your computer system's vital components, such as fan rotations, voltages, and temperatures. It also has a utility that lets you review useful information about your computer, such as hard disk space, memory usage, and CPU type, CPU speed, and internal/external frequencies through the DMI Explorer.

Starting Probe2

If the Probe2 icon (magnifying glass) is not shown on the taskbar (see below), click the Windows **Start** button, point to **Programs**, and then **ASUS Utility**, and then click **Probe VX.XX**.

When Probe2 starts, a splash screen appears allowing you to select whether to show the screen again when you open Probe2 or not. To bypass this startup screen, clear the **Show up in next execution** check box.



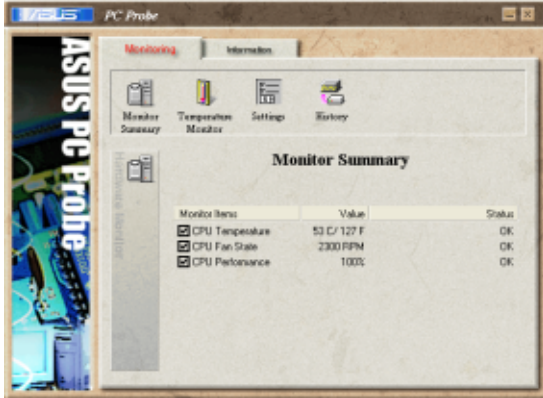
The Probe2 icon  will appear on the taskbar's system tray indicating that Probe2 is running. Clicking the icon once will allow open the Probe2 interface.

Windows XP Taskbar

Windows XP will hide taskbar items. Click the arrow to show running services.

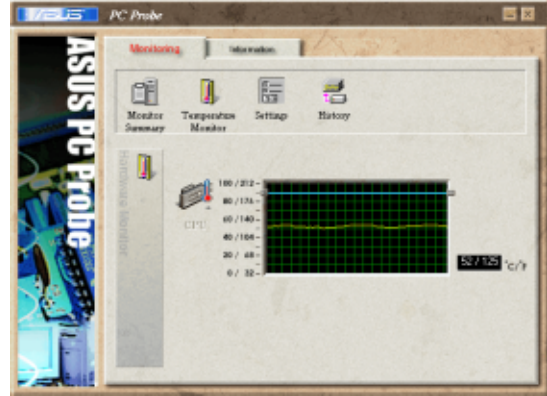


Using Probe2 Monitoring



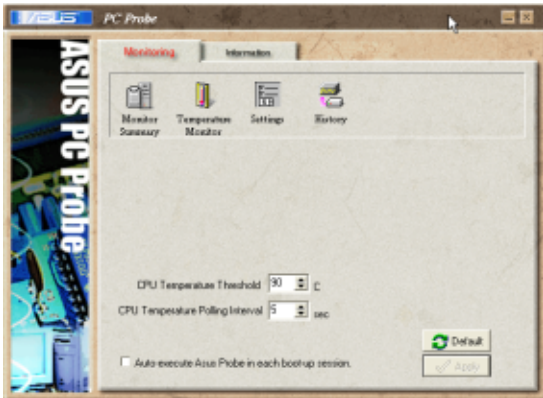
Monitor Summary

Shows a summary of the items being monitored.



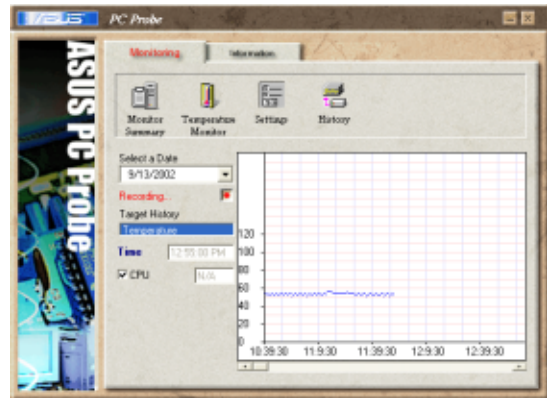
Temperature Monitor

Shows the PC's temperature.



Settings

Lets you set threshold levels and polling intervals or refresh times of the PC's temperature, fan rotation, and voltages.

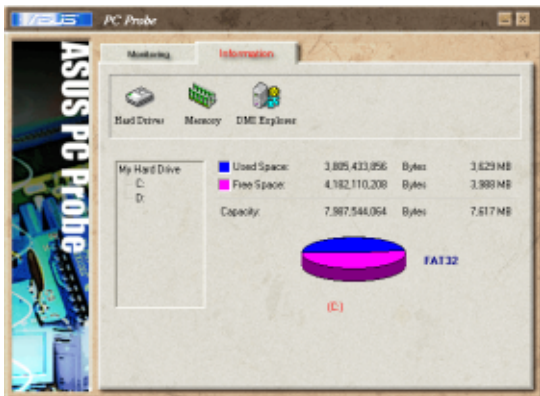


History

Lets you record the temperature monitoring activity by date, time, and target history. Click the record button and select a date. To view a previous recording, simply choose that date.

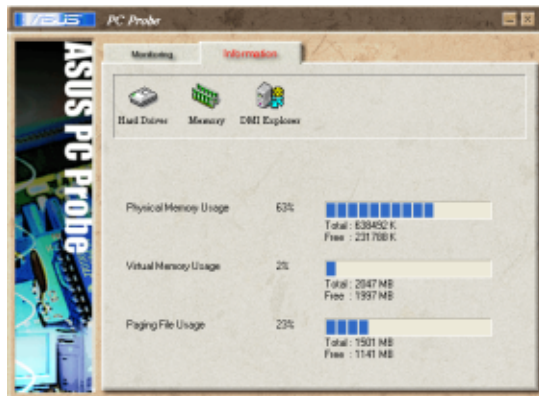
Using Probe2 Monitoring (Cont')

Information



Hard Drives

Shows the used and free space of the PC's hard disk drives and the file allocation table or file system used. Information on other hard drives can be accessed by clicking on the relevant drive letter.



Memory

Shows the PC's memory load, memory usage, and paging file usage.



DMI Explorer

Shows information pertinent to the PC, such as CPU type, CPU speed, and internal/external frequencies, and memory size.

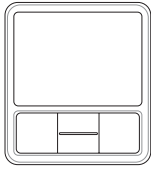
Probe2 Taskbar Icon

Right clicking the Probe2 icon will bring up a menu to open or exit Probe2 and pause or resume all system monitoring.



When the Probe2 senses a problem with your PC, portions of the Probe2 icon changes to red and audio alerts will be heard from the speaker.





TouchPad

(Recommended Utility)

Topics Covered:

TouchPad Setup

Overview of the TouchPad

Scrolling Properties Page

Tap Zones Properties Page

More Features Properties Page

Button Actions Properties Page

Touch Properties Page

Edge Motion Properties Page

Frequently Asked Questions

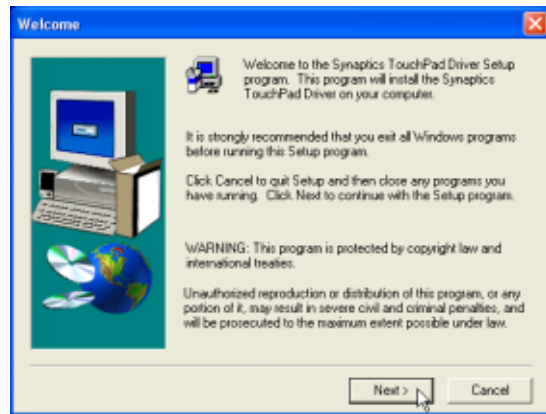
Screens will vary depending on your operating system but the contents should be the same.

Touchpad Setup

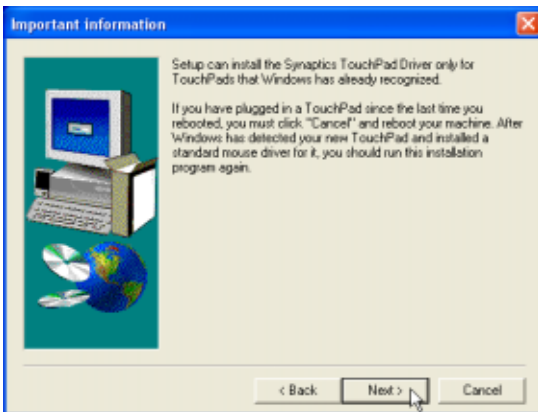
Running setup will give you the following wizard:



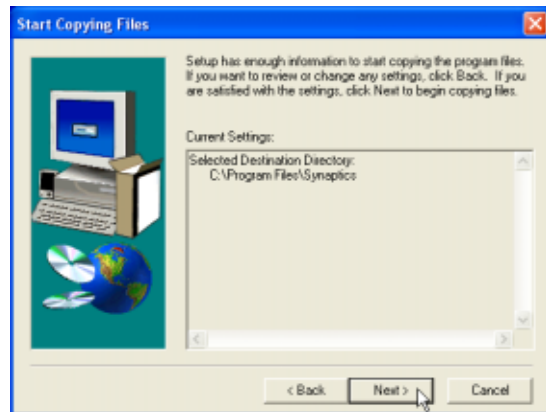
On the “Choose Setup Language” screen, select a language and click **OK** to continue.



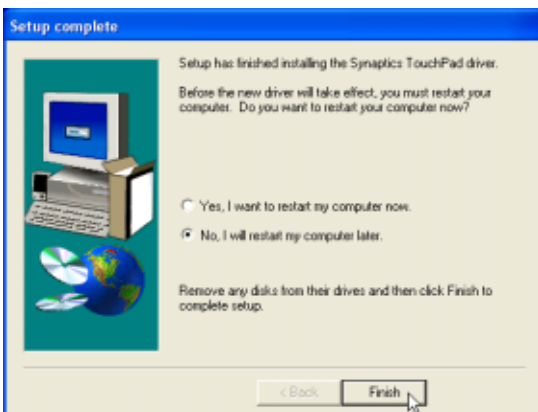
On the “Welcome” screen, click **Next** after reading the message.



On the “Information” screen, click **Next** after reading the message.



On the “Start Copying Files” screen, click **Next** after checking the current settings.



On the “Setup Complete” screen, select “No,...” and click **Finish**.

Synaptics® TouchPad Features

Your Synaptics TouchPad is much more powerful than an old-fashioned mouse. In addition to providing all the features of an ordinary mouse, your TouchPad allows you to:

- Tap on the Pad Instead of Pressing the Buttons
- Drag Icons, Windows and Other Objects without Using Buttons
- Adjust the Overall Touch Sensitivity
- Customize Buttons and Taps
- Prevent Accidental Pointing While Typing (also known as Palm Check)
- Scroll Through a Document Without Using Scroll Bars
- Zoom In/Out and Pan on Documents
- Move the Pointer Long Distances
- Fine Tune the Pointer Movement

Tap on the Pad Instead of Pressing the Buttons

Tapping on the surface of the pad is the same as clicking the left mouse or TouchPad button (i.e. the primary TouchPad button). Tapping is usually quicker and more convenient than using the button. To double-click, just tap twice. A light, quick tap works best; very hard or very slow taps are less likely to work.

Drag Icons, Windows and Other Objects without Using Buttons

Often, you need to hold the mouse or TouchPad button down while moving the pointer (to move an icon or window around the screen, for example). This action is called dragging. Just like clicking and double clicking, you can also drag without using the button.

To move or drag an object (equivalent to pressing and holding the left TouchPad button):

- 1) Position the pointer over the object and tap twice, down-up-down, leaving your finger on the TouchPad on the second tap. This action is sometimes called tap-and-a-half.
- 2) Now move the selected object by sliding your finger across the TouchPad surface.
- 3) Lift your finger to drop the object.

Tap-and-a-Half

You might wonder what happens when you reach the edge of the pad and you are dragging an object. The Synaptics TouchPad has a feature called Locking Drags. This feature allows you to lift your finger from the pad without ending the drag. You can drag an object across the screen using several finger strokes. To end a Locking Drag action, tap again. The Synaptics TouchPad also has a feature called Edge Motion to help with long distance dragging. See Move the Pointer Long Distances for details.

The Tap and Drag and Locking Drags features are located on the Touch Properties Page in the Mouse Properties dialog.

Adjust the Overall Touch Sensitivity

You can control how much finger pressure you must apply before the TouchPad responds by adjusting the Touch Sensitivity slider. This slider is located on the Touch Properties Page in the Mouse Properties dialog.

At higher (more sensitive) Touch Sensitivity settings, the TouchPad recognizes even a very slight touch. If you see undesired or erratic pointer motion, try a lower setting. Lower (less sensitive) settings require a firmer touch to move the pointer. In general, a lighter touch works best.

Customize Buttons and Taps

Most TouchPads come with two buttons that work just like traditional mouse buttons. You can customize the behavior of these buttons.

Tapping on the TouchPad surface also performs the same action as pressing a button. Tapping in the center of the pad will always produce a left-click (the action of the primary button), but you can configure each of the four corners of the TouchPad surface to act as different buttons. These special corner regions are called tap zones. With four corner tap zones, the center of the TouchPad, and the two physical buttons you can turn your TouchPad into a seven-button mouse!

A customization example:

Suppose you want to use your TouchPad like a three-button mouse. You can configure the left TouchPad button to produce middle clicks when pressed. Remember that tapping on the TouchPad will produce left clicks, and pressing the right TouchPad button will produce right clicks. For additional convenience, you can configure the top right corner tap zone of the TouchPad to produce right clicks. Looking at the TouchPad surface in the picture below, taps in the top right corner (the red shaded area) will produce right clicks, but tapping anywhere else on the TouchPad (the solid gray area) produces left clicks.

An Example TouchPad

There are many different actions that you can assign to the buttons and tap zones. The following actions are provided as built-in features with the Synaptics TouchPad device driver. Additional actions might be available if you have installed any third-party TouchPad Plug-In software.

- Jump to the Start Button. This action causes the pointer to jump to the Start button in the Windows task bar and automatically opens the Start Menu.
- Jump to the current application's menu. This action causes the pointer to jump to the left-most entry in the application's window menu (usually the File menu) and automatically pops up the submenu.
- Minimize the current application. This action minimizes the current application's window. If the current application's window is already minimized, this action will restore it to its normal size and location.
- Maximize the current application. This action maximizes the current application's window (expands it to cover the full screen). If the current application's window is already maximized, this action will restore it to its normal size and location.
- Run a program of your choosing. This action allows you to specify the name of any program you want to run automatically when you click the button or tap in the tap zone.

To customize taps and buttons, go to the Button Actions Properties Page in the Mouse Properties dialog.

Prevent Accidental Pointing While Typing

Unintentional pointer movement and accidental taps can be caused by accidentally brushing the surface of the TouchPad with your palm or another part of your hand. The results of this contact can be observed as a changing cursor location when typing, causing subsequent text to appear in the wrong place. Or text may “spontaneously” be highlighted and replaced. Most often, this unwanted pointing activity occurs when typing on the keyboard. The TouchPad can detect and prevent accidental and unwanted pointer movement while you are typing.

If you see unwanted pointer movement occurring while you are typing, you can adjust the Palm Check slider located on the Touch Properties Page in the Mouse Properties dialog. Move the slider thumb to the right towards Maximum. Now accidental brushes of your hand on the TouchPad while you are typing are more likely to be ignored.

On the other hand, in the midst of typing, you might purposefully use the TouchPad to point and click, and sometimes the TouchPad may not seem to respond. In this case, move the slider thumb to the left towards Minimum. Now pointing during typing is less likely to be interpreted as an accidental brush with the pad surface, and will not be ignored.

Scroll Through A Document without Using Scroll Bars

Virtual Scrolling allows you to perform a very common task – scrolling documents – without having to move the pointer away from your work. By simply sliding your finger up and down the right edge of the TouchPad, the contents of the current window will scroll vertically. Similarly, by sliding your finger left and right along the bottom edge of the TouchPad, the contents will scroll horizontally. You no longer need to laboriously maneuver the pointer to the small scroll bar elements; you can scroll no matter where the pointer happens to be.

Virtual Scrolling works with document windows (like word processors and spreadsheets), and it also works with file lists, font lists, and other scrollable items. As a rule, you can use Virtual Scrolling when you are working in any window that has a scroll bar.

And Virtual Scrolling does more than just make scrolling more convenient. It also can make scrolling smoother. When you scroll by dragging the scroll thumb with the mouse, many applications do not re-display the document window until you release the mouse button. Virtual Scrolling makes navigation through documents easier, because it forces the application to re-display the window contents as you scroll.

How do I use Virtual Scrolling?

To customize the Virtual Scrolling feature, go to the Scrolling Properties Page located in the Mouse Properties dialog.

Zoom In/Out and Pan on Documents

Note that zooming and panning only work in applications that support the Microsoft Intellimouse. With Intellimouse aware applications, you can zoom and/or pan to quickly maneuver your way through lengthy documents. To jump to a distant location within your document, zoom out, click on the desired location, then zoom in. To scroll horizontally and vertically at the same time, simply pan in a diagonal direction!

Move the Pointer Long Distances

Suppose you are dragging an object, scrolling at high speed (via Virtual Scrolling!), or merrily moving the pointer when you suddenly reach the edge of your TouchPad. Don't despair, the Synaptics TouchPad Edge Motion feature comes to the rescue! Edge Motion helps with long distance pointer motion. When you reach an edge of the TouchPad, the pointer (or scroll thumb when Virtual Scrolling) continues to move in the same direction until you lift your finger from the TouchPad or move your finger away from the edge.

Edge Motion speed can be pressure-sensitive or constant. Pressure-sensitive speed means that the harder you press, the faster the object or pointer moves.

You can configure the Edge Motion feature on the Edge Motion Properties Page in the Mouse Properties dialog.

Fine Tune the Pointer Movement

The Synaptics TouchPad has many additional features to help you control the way your pointer moves. Please take a look at the list of additional features.

Accessories

Your TouchPad is a productivity enhancing tool, designed for serious work. But we think it should also be fun. We have included two fun application programs that demonstrate some of the capabilities of the TouchPad: Pressure Graph and The Incomparable, Mysterious Synaptics MoodPad.

To run these applications, click once on the Synaptics TouchPad Icon in the Taskbar, go to the Accessories menu and select the desired application.

More About the TouchPad

The TouchPad detects your finger by capacitive sensing (it is not sensitive to heat or applied force). As your finger approaches the pad, it alters the electric field in the vicinity of the pad surface. The TouchPad sensor is just a circuit board with a matrix of conductive traces printed on the top surface. A special chip on the back side of the TouchPad continuously measures the capacitance of these traces, and thus can determine the presence and location of your finger.

To get the most out of your TouchPad, be sure that the TouchPad driver software is installed. If the Synaptics TouchPad driver is properly installed, the Mouse Properties dialog will include several TouchPad tabs along the top in addition to the standard mouse tabs.

Property Pages

The property pages allow you to customize TouchPad settings for your Notebook PC. The following pages will describe each property page with the Synaptics logo. The "Buttons", "Pointers", and "Pointer Options" pages come with Windows and should be described in Windows documentation.

Scrolling Properties Page

The Scrolling properties page allows you to customize the Virtual Scrolling capabilities of your TouchPad.

In some applications, the scroll zones which activate Virtual Scrolling can be used for zooming too.

Enabling Virtual Scrolling of the Active Window

Check the appropriate boxes on this page for the type of Virtual Scrolling that you prefer:

- Horizontal Scrolling
- Vertical Scrolling
- Coasting

Choose where you want Virtual Scrolling to occur:

- Scroll Selected Item
- OR -
- Scroll Item Under Pointer

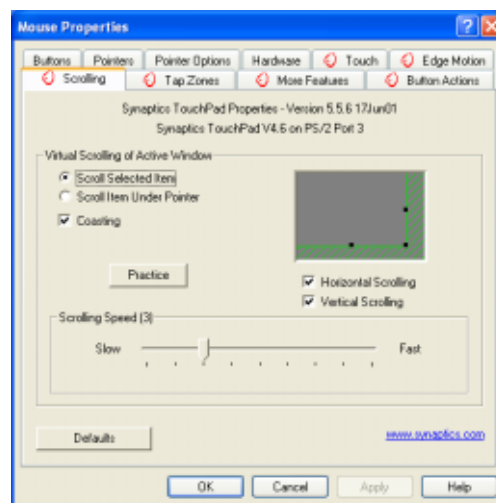
Customizing Scroll Zone Sizes

This page includes a small map of the TouchPad with the scroll zones shaded in red. See the Scroll Zone TouchPad Map for a more detailed description.

You can adjust the size of each zone by dragging one of the black resize handles on the TouchPad map. If you are having trouble activating the Virtual Scrolling feature, you might want to try making the scroll zones wider. If you find that scrolling sometimes gets activated when you didn't mean to scroll, try narrowing the scroll zones.

Customizing Virtual Scrolling Speed

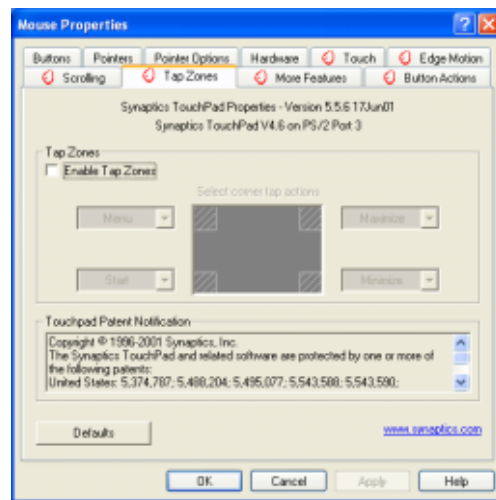
You can control the speed of Virtual Scrolling by adjusting the Scrolling Speed slider on this page. Drag the slider thumb to the right for faster scrolling.



Tap Zones Properties Pages

The Tap Zones properties pages allow you to assign custom actions to taps in the Touchpad's corner zone regions (or tap zone regions).

The Synaptics TouchPad driver may also control other pointing devices attached to your system. If the Synaptics TouchPad driver is controlling more than one pointing device on your system, the Synaptics pages on the Mouse control panel will have a drop-down box listing all of the pointing devices that are controlled. You may set separate settings for each by selecting the appropriate device (settings which don't apply to a particular pointing device will be grayed out).



Customizing the Tap Zones

When the tap zones are enabled, each tap inside a corresponding tap zone region on your TouchPad can have a different meaning or action. For example, you can define the upper right corner tap zone to mean right clicks. Then when you tap your finger on the upper right corner of your TouchPad, it is as if you are clicking the right mouse or TouchPad button.

This page includes a small map of the TouchPad with the active tap zones shaded in red. Next to each zone is a text box specifying the action for that zone.

To Customize:

1. To activate the corner tap zones, check the box next to the text Enable Tap Zones. An unchecked box means that all taps on every part of the TouchPad surface will have left-click behavior.
2. To change an action for a particular zone, locate the text box nearest the zone. The text box displays the current action for this zone (for example, it might say No Zone which means that this particular zone is disabled and any taps here will produce the default left-click action). Click on the down arrow button located to the right of the text to display a list of actions. Select the desired action.
3. Each tap zone can be resized to be as large or as small as you desire by dragging one of the black resize handles located on the TouchPad map.

More Features Properties Page

The More Features properties page allows you to control the following features of your Synaptics TouchPad:

Stop Pointer at Window Borders

This feature constrains the pointer to stay inside the active window. When you try to move the pointer outside the window, it stops at the edge. If you try a second time, the pointer is free to leave the window.

Stopping the pointer at the window borders makes it easy to access controls that lie around the edges of windows. For example, to close or resize a window, you can casually toss the pointer in the general direction of the close box or the edge of the window, and the pointer will stop exactly where you want it.

Snap to Default Button

This feature automatically moves the pointer to the Default Button when a dialog box appears on your screen.

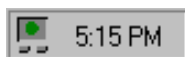
Slow Motion Key

Sometimes you might need more accuracy when pointing with the TouchPad, such as in a drawing program. The speed of the pointer can make this type of accuracy difficult to obtain. To slow down the pointer movement, you can specify a slow motion key. Then, for slow pointer movement, press and hold this key as you move the pointer.

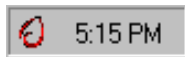
Constrained Pointer Key

At times you may want to restrict the pointer to move only horizontally or only vertically. You can specify a constrained pointer key, then press and hold this key as you move the pointer. The initial pointer direction when holding this key determines whether the pointer is constrained to move only horizontally or only vertically.

Synaptics TouchPad Tray Icon



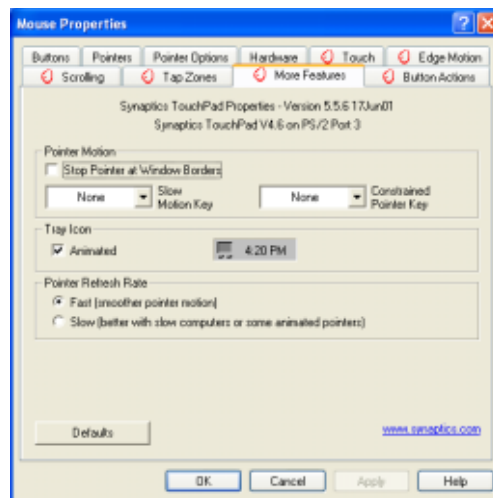
The Synaptics TouchPad tray icon appears in the Windows Taskbar near the clock. You can choose between two icons:



This is the animated Touch Meter icon. The size of the dot on the touch meter indicates the amount of finger pressure. The icon turns blue while Virtual Scrolling is in progress.

This is the non-animated Synaptics logo icon.

You can access the “TouchPad Properties” dialog by double clicking on either tray icon.



Button Actions Properties Page

The Button Actions properties page allows you to customize the physical buttons of your TouchPad.

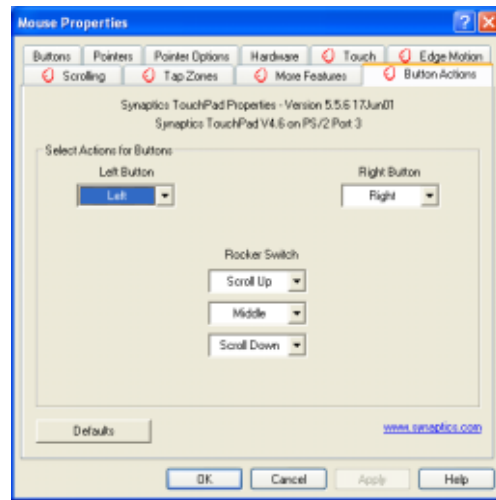
The **Rocker Switch** settings are available on Notebook PC's with scroll buttons between the left and right buttons.

Customizing Button Assignments

You can customize the TouchPad buttons in the same way that you customize the tap zones.

To Customize:

Each button has a text box that displays the current action (for example, it might say Left, which means the left-click or primary-click action). To display a list of possible actions, click on the down arrow button located to the right of the text. Select the desired action.



Touch Properties Page

The Touch properties page allows you to customize the tap response and sensitivity of your TouchPad.

Taps

Check the appropriate boxes in the Taps section of the Touch Properties Page for the tapping capabilities that you prefer:

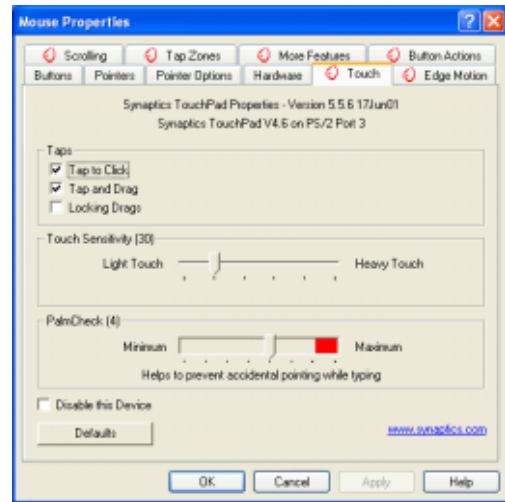
- Tap to Click
- Tap and Drag
- Locking Drags

Touch Sensitivity

Use the Touch Sensitivity slider to control how much finger pressure you must apply before the TouchPad responds. See Adjust the Overall Touch Sensitivity.

Palm Check

The Palm Check slider controls the TouchPad's detection of accidental and unwanted pointing movement. In addition to detecting palm contact with the TouchPad, the TouchPad can ignore much of the accidental and unwanted pointer movement that may occur while typing (due to accidentally contacting your TouchPad). See Prevent Accidental Pointing While Typing for more details.



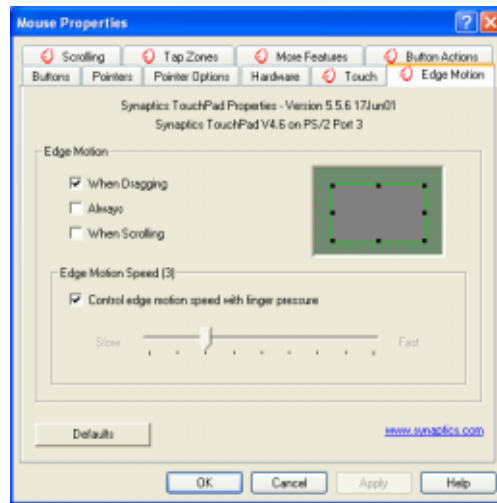
Edge Motion Properties Page

The Edge Motion properties page allows you to customize the long distance pointer motion capabilities of your TouchPad. When your finger reaches the edge of your TouchPad, the Edge Motion feature allows the pointer to continue to move until you lift your finger. See [Move the Pointer Long Distances](#) for more details about the Edge Motion feature.

Enabling Edge Motion

Check the appropriate boxes on this page for the types of Edge Motion that you desire:

- When Dragging
- Always
- When Scrolling



Customizing Edge Zone Sizes

This page includes a small map of the TouchPad with the edge zones shaded in red. See the [Edge Zone TouchPad Map](#) for a more detailed description. You can adjust the size of each zone by dragging one of the black resize handles on the TouchPad map. If you are having trouble activating the Edge Motion feature, you might want to try making the edge zones wider.

Customizing Edge Motion Speed

During Edge Motion, the speed at which the pointer (or dragged object or Virtual Scrolling scroll thumb) moves can be pressure-sensitive or constant. With pressure-sensitive speed, the harder you press the faster the object or pointer moves. For this type of speed, check the box labeled [Control edge motion speed with finger pressure](#).

If you prefer a constant speed for Edge Motion, you can adjust the speed with the [Edge Motion speed slider](#) located on this page.

Frequently Asked Questions

Q: When I use Virtual Scrolling, the pointer jumps over to the scroll bar, and then jumps back where it came from when I'm done. Is this normal?

A: Yes.

Q: Why doesn't the Virtual Scrolling feature work in some windows, even though they have a scroll bar?

A: In order to scroll, Virtual Scrolling must be able to "see" the window's scroll bar. If the scroll bar is partially obscured by another window, or partially off the screen, then Virtual Scrolling will not activate in that window. In general, a window's scroll bar must be entirely on the screen, and fully visible, in order to use Virtual Scrolling in that window. There is an exception to this rule: Virtual Scrolling has "special knowledge" about many common types of windows, and can scroll them even if their scroll bars are not visible on the screen. A very small number of applications use nonstandard scroll bars that might not work reliably with Virtual Scrolling.

Q: Why do some windows scroll smoothly, while others re-display their contents only occasionally as I scroll?

A: The way a window responds to its scroll bars is entirely up to the application which owns that window. Some applications "smooth-scroll," while others wait until you release the scroll bar before updating their contents. Virtual Scrolling "knows" about many common applications and window types, and uses this knowledge to "trick" many windows into smooth-scrolling (Microsoft® Word™ document windows, for example, do not normally smooth-scroll, but they do when you use Virtual Scrolling). If Virtual Scrolling does not "know" about a particular type of window, it still approximates smooth-scrolling by causing the window to re-display when your finger slows down or stops. This can help you more accurately scroll to the right place in a document.

Q: Why does the scroll thumb sometimes "jump around" when I scroll, and not go exactly where the pointer is?

A: Again, the application actually has complete control over the way the scroll thumb moves. Depending upon the window contents, some applications will actually prevent you from moving the scroll thumb to certain locations. Sometimes, the scroll thumb is only "allowed" to come to rest at one or two positions along the scroll bar! In these cases, even if you were to manually drag the scroll thumb with the pointer, you would find that it would "jump" to a final location when you released it. Virtual Scrolling, unfortunately, cannot control how applications manage their scroll bars.

Frequently Asked Questions (Cont')

Q: Why doesn't Virtual Scrolling work properly with Microsoft Internet Explorer?

A: Make sure you are using Internet Explorer version 4.01 or later, and that the Use Smooth Scrolling option on the Advanced page of the Internet Explorer Properties dialog is NOT checked.

Q: When I press and hold the shift key or the control key (CTRL), the pointer movement is either very slow or restricted to move only horizontally or only vertically. What is happening?

A: The shift keys and the control keys are special and are used for various things, such as selecting multiple files in Microsoft Windows Explorer or for zooming in and out on a spread sheet in Microsoft Excel. These keys can also be used for special pointer movement, such as for slowing the pointer down or for constraining the pointer to move only horizontally or only vertically. For example, you can assign the left shift key to be the Slow Motion Key. Then when you press and hold the left shift key, the pointer motion will be slower than usual. Note that you can still use this shift key for other special behaviors! You can still press and hold the left shift key to select multiple files in Microsoft Windows Explorer, but the pointer motion will also be a bit slower. If you see slow or constrained pointer movement when pressing shift or CTRL and you want to turn off this special behavior, go to the More Features Properties Page in the Mouse Properties dialog and uncheck the appropriate boxes.



WinFlash

(Recommended Utility)

Topics Covered:

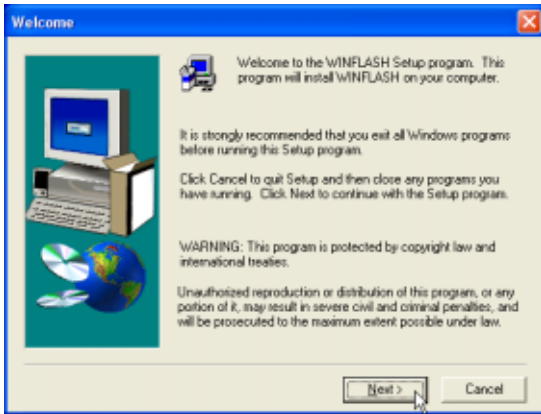
WinFlash Setup

Using WinFlash

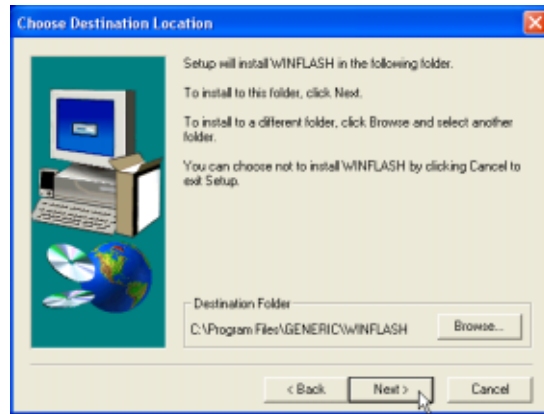
Screens will vary depending on your operating system but the contents should be the same.

WINFLASH Setup

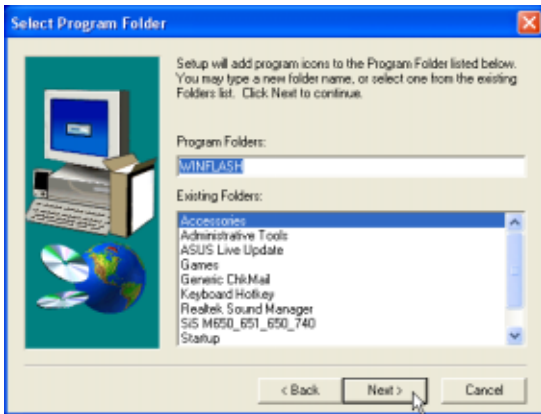
Running setup will give you the following wizard:



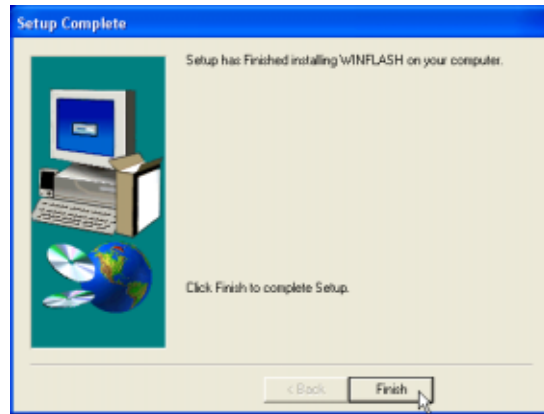
On the “Welcome” screen, click **Next** after reading the message.



On the “Choose Destination Location” screen, click **Next** to continue or you may first change the destination folder.



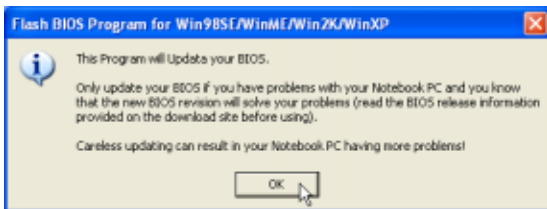
On the “Select Program Folder” screen, click **Next** to continue or enter a different folder name.



On the “Setup Complete” screen, click **Finish**.

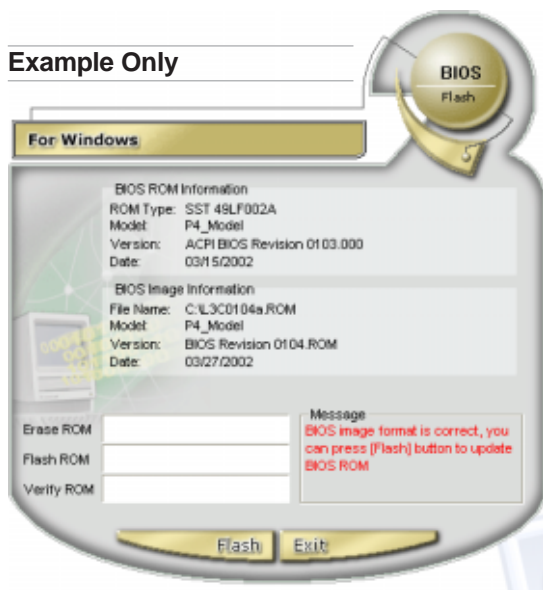
Using WINFLASH

WINFLASH is a simple utility to update your Notebook PC's BIOS. To run **WINFLASH**, access the **All Programs** shortcut through the **Start** button.

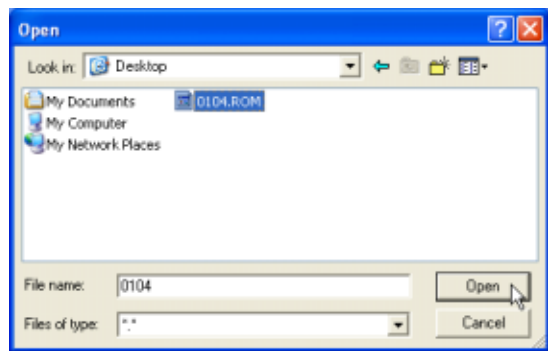


Do not update your BIOS for no reason.

You will be warned that you should only update your BIOS if you know it will solve a specific problem. If you update your BIOS using the wrong BIOS file, your Notebook PC may not boot up.



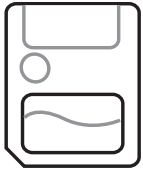
Compare the BIOS ROM (your current BIOS) to the BIOS image (the new BIOS). If this is correct, click **Flash** to write the new BIOS to your Notebook PC. You need to restart your Notebook PC and "reset your BIOS". See instructions on the next page.



When you enter WINFLASH, you will be immediately asked for the BIOS image file. Browse to the file and click **Open**.



You may be instructed to "reset your BIOS". It entails pressing **[F2]** on bootup to enter BIOS setup and selecting **Load Setup Defaults**, and then **Exit Saving Changes** on the "Exit" menu.



Memory Reader

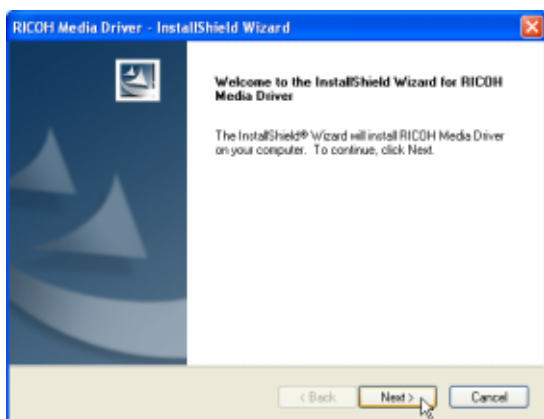
(Additional Driver)

Topics Covered:
Memory Reader Driver Setup

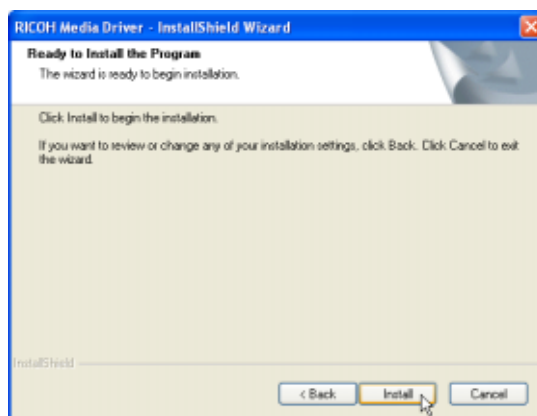
Screens will vary depending on your operating system but the contents should be the same.

Memory Reader Driver Setup

Depending on your operating system version and drivers installed, you may or may not require this driver. If the built-in flash memory card does not work. Try installing this driver. Running setup will give you the following wizard:



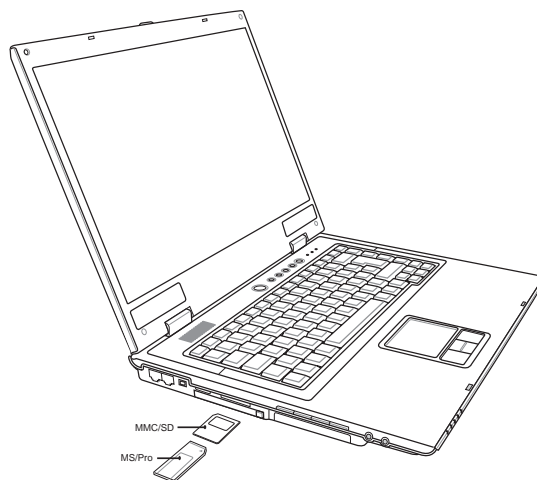
On the “Welcome” screen, click **Next** after reading the message.



Click **Install** to begin installing the driver.



On the “Setup Complete” screen, click **Finish**.



After the memory reader driver is installed, you can read or write to various memory types. See the hardware manual for information on supported memory types.

BIOS Setup

Updating your BIOS	88
BIOS Setup Program	88
Main	92
Advanced	93
Advanced (sub-menu)	94
Display	97
Security	98
Security (sub-menu)	100
Power	102
Boot	103
Boot (sub-menu)	104
Boot	105
Exit	106

BIOS Setup Program

This Notebook PC supports a programmable EEPROM that stores the BIOS software and can be updated using the provided flash memory writer utility. This Section will guide you through the BIOS setup program by providing clear explanations for all the options. A default configuration has already been set. If you are either installing new devices or expanding main memory, you will need to enter the BIOS Setup to reconfigure your Notebook PC.

A battery backed-up CMOS RAM is used to record some basic system hardware information: clock, date, time, the error handling, and etc., even when the power is off. When the Notebook PC is turned back on, the system is configured with the values stored in the CMOS RAM.

The settings made in the BIOS Setup program intimately affect how the Notebook PC performs. It is important, therefore, to first understand all the Setup options, and second, to make settings appropriate for the way you use the Notebook PC.

The BIOS (Basic Input and Output System) Setup is a menu driven software utility that enables you to make changes to the system configuration and tailor your Notebook PC to reflect installed hardware, alter performance, and setup power saving functions. BIOS setup is used if you are setting up the Notebook PC for the first time, reconfiguring your system, or prompted to “**Run Setup**” during bootup. This section describes how to configure your system using this utility.

Even if you are not prompted to use the Setup program, at some time in the future you may want to change the configuration of your Notebook PC. For example, you may want to enable the Security Password Feature or make changes to the power management settings. It will then be necessary to reconfigure your system using the BIOS setup program so that the computer can recognize these changes and record them in the CMOS RAM of the EEPROM.

The Setup program has been designed to make it as easy to use as possible. It is a menu-driven program, which means you can scroll through the various sub-menus and make your selections among the predetermined choices.

When you start up the computer, press [F2] to call up the Setup utility.



NOTE: Because the BIOS software is constantly being updated, the following BIOS screens and descriptions are for reference purposes only and may not exactly reflect your BIOS screens.

Updating your BIOS

This Notebook PC supports three BIOS update software as provided on the support CD: (1) “**LiveUpdate**” is a Windows utility to automatically search for a newer BIOS file on the Internet and install it for you, (2) “**WinFlash**” can be used in Windows to update your BIOS using a file that you specify, and (3) “**Aflash**” is a DOS utility to allow BIOS updating without using the Windows operating system.

BIOS Menu Bar

The top of the screen has a menu bar with the following selections. Highlighting a menu item with the ← or → (keypad arrow keys) will automatically display that page on the screen.

NOTE: Press [F2] to switch BIOS setup utility display color.



MAIN

Use this page to view basic system configurations such as BIOS version, CPU type, memory size, and Date/Time.

ADVANCED

Use this page to enable and make changes to the advanced features such as IDE devices and internal pointing device.

DISPLAY

Use this page to make changes to the Notebook PC's internal and external display features.

SECURITY

Use this page to set passwords and control access to the BIOS setup utility and hard disk drive.

POWER

Use this page to configure power/performance management features.

BOOT

Use this page to configure storage devices used to load the Operating System.

EXIT

Use this page to load or save settings and to exit the BIOS setup program.

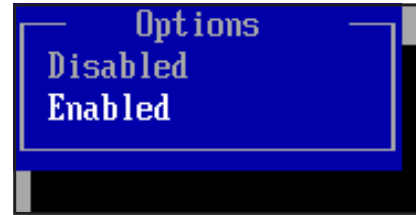
BIOS Utility Help

On the right of each page will display help information to guide you through using the BIOS setup utility. The keys in the legend bar allow you to navigate through the various setup menus. The following table lists the keys found in the legend bar and those that are not with their corresponding alternates and functions.

Use [ENTER], [TAB] or [SHIFT-TAB] to select a field.

Use [+] or [-] to configure system Time.

↔ Select Screen
 ↑↓ Select Item
 Enter Go to Sub Screen
 F1 General Help
 F9 Load Defaults
 F10 Save and Exit
 ESC Exit



Option box

↔ Select Screen
 ↑↓ Select Item
 +- Change Field
 Tab Select Field
 F1 General Help
 F9 Load Defaults
 F10 Save and Exit
 ESC Exit

↔ Select Screen
 ↑↓ Select Item
 Enter Change
 F1 General Help
 F9 Load Defaults
 F10 Save and Exit
 ESC Exit

Navigation Key(s)	Function Description
[Enter]	Brings up a selection menu or enter a sub-menu
[Tab] or [Shift-Tab]	Scrolls though multiple fields for those that have them
+ or - (shift =)	Increase or decrease a field value for those that have them
← or → (keypad arrow)	Selects the menu item to the left or right
↑ or ↓ (keypad arrows)	Moves the highlight up or down between fields
[F1]	Displays a general help screen from anywhere in the BIOS Setup
[F9]	Load optimal default settings (confirmation will be asked)
[F10]	Saves changes and exit (confirmation will be asked)
[Esc]	Jumps to the Exit menu or returns to the main menu from a sub-menu
[Home] or [PgUp]	Moves the cursor to the first field
[End] or [PgDn]	Moves the cursor to the last field
[F2] or [F3]	Scrolls forward or backward through display colors in the BIOS setup utility as follow: Black/Blue on Gray, Gray on Blue, White on Black
[F7]	Discard changes and exit (confirmation will be asked)
[F8]	Load safe default settings (confirmation will be asked)

F1 General Help

In addition to the Item Specific Help window, the BIOS setup program also provides a General Help screen. This screen can be called up from any menu by simply pressing [F1] or the [Alt] + [H] combination. The General Help screen lists the legend keys with their corresponding alternates and functions.

↑↓ Scroll Bar

When a scroll bar appears to the right of a help window, it indicates that there is more information to be displayed that will not fit in the window. Use [PgUp] and [PgDn] or the up and down arrow keys to scroll through the entire help document. Press [Home] to display the first page, press [End] to go to the last page. To exit the help window, press [Enter] or [Esc].

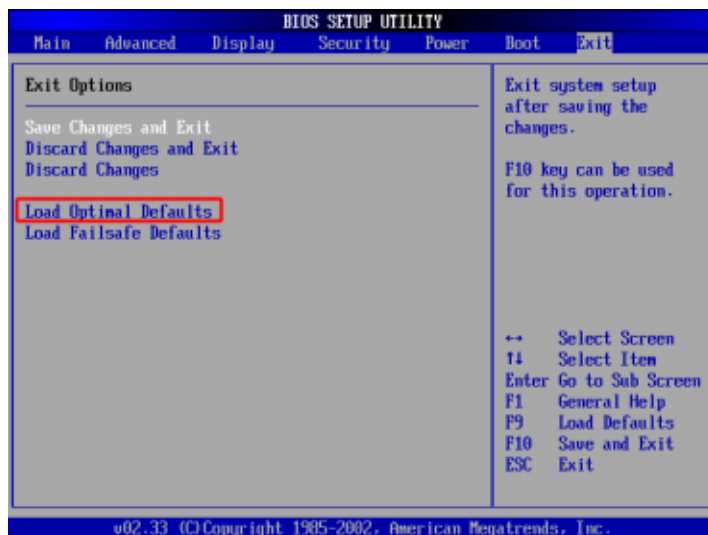
▶ Sub-Menu

Note that a right pointer symbol appears to the left of certain fields. This pointer indicates that a sub-menu can be launched from this field. A sub-menu contains additional options for a field parameter. To call up a sub-menu, simply move the highlight to the field and press [Enter]. The sub-menu will then immediately appear. Use the legend keys to enter values and move from field to field within a sub-menu just as you would within a menu. Use the [Esc] key to return to the main menu.

Take some time to familiarize yourself with each of the legend keys and their corresponding functions. Practice navigating through the various menus and sub-menus. While moving around through the Setup program, note that explanations appear in the Item Specific Help window located to the right of each menu. This window displays the help text for the currently highlighted field.

F9 Resetting Your BIOS

If you ever hear “resetting your BIOS”, it entails pressing [F2] on bootup to enter BIOS setup and then selecting **Load Optimal Defaults** on the “Exit” page. Or you may use [F9] on any page.



Main

When the Setup program is accessed, the main menu screen appears as shown:



System Overview

AMIBIOS

Version : [XXXX] (display field)

This displays the current BIOS version in the Notebook PC's flash EEPROM.

Build Date : [XX/XX/XX] (display field)

This displays the current BIOS version release date in the Notebook PC's flash EEPROM.

Processor

Type : [Intel(R) Pentium(R) M CPU 1400MH] (display field)

This displays the current CPU model.

Speed : [XXXXMHz] (display field)

This displays the CPU speed specified by the above processor.

System Memory

Size: : [1024MB] (display field)

Shows the amount of usable memory available to your operating system.

System Time [xx:xx:xx] (display field)

Sets your system to the time that you specify (usually the current time). The format is hour, minute, second. Use the [Tab] or [Shift Tab] keys to move between the fields.

System Date [xxx xx/xx/xxxx] (display field)

Sets your system to the date that you specify (usually the current date). The format is Day of the week, Month, Day, Year. Use the [Tab] or [Shift Tab] keys to move between the fields.

Advanced

Selecting this item from the previous menu displays the page as shown below.



Advanced Settings

> IDE Configuration (see next page)

Internal Pointing Device [Enabled]

This allows you to turn ON or OFF the Notebook PC's built-in touchpad. Some external pointing devices have extra functions that may not function without turning OFF the Notebook PC's touchpad. The configuration options are: [Enabled] [Disabled]

Internal Numeric Pad Lock [Enabled]

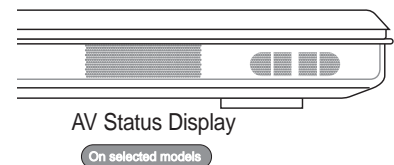
This allows you to turn ON or OFF the Notebook PC's Numeric Keypad function. The configuration options are: [Enabled] [Disabled]

LCD Screen Expansion [Yes]

This function will stretch the displayed image to fill the Notebook PC's LCD display when the software (such as DOS applications) cannot do so. The configuration options are: [No] [Yes]

LED Display [Enabled]

This allows you to turn ON or OFF the Notebook PC's Audio/Video status display. The configuration options are: [Enabled] [Disabled]



Advanced (sub-menu)

Selecting this item from the previous menu displays the page as shown below.



IDE Configuration

> Onboard PCI IDE Controller [Both] (shows enabled item)

This item allows you to enable or disable the IDE channels. The configuration options are: [Disabled] [Primary] [Secondary] [Both]

> Primary/Secondary IDE Master/Slave (display field)

[Hard Disk]

This item automatically detects any IDE device connected here. Press [Enter] to edit device information. (Editing device information is only used for troubleshooting by technical computer experts and should never be edited by users.)

[ATAPI CDROM]

This item automatically detects any IDE optical drive connected here. Press [Enter] to edit device information. (Editing device information is only used for troubleshooting by technical computer experts and should never be edited by users.)

[Not Detected]

If "Not Detected" is shown here, it means that there is no IDE device here, not properly connected, not compatible, or in a nonworking condition.

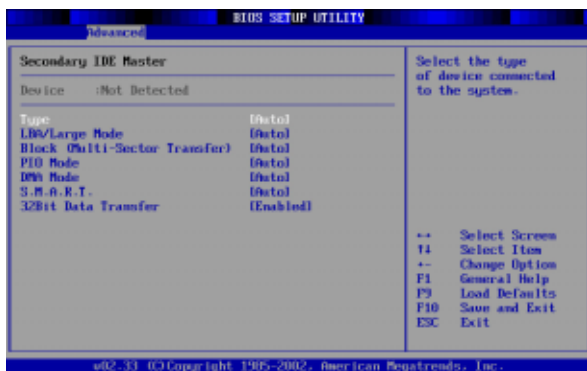
[Hard Disk]



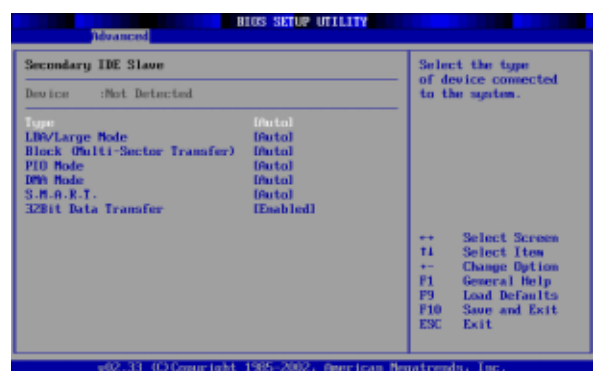
[Primary IDE Slave - No Device]



[ATAPI CDROM]



[Secondary IDE Slave - No Device]



NOTE: Before attempting to configure a hard disk drive, make sure you have the configuration information supplied by the manufacturer of the drive. Incorrect settings may cause your system to not recognize the installed hard disk. To allow the BIOS to detect the drive type automatically, select [AUTO].

Type [Auto]

Select **Auto** to automatically detect an IDE type drive. This option only works with standard built-in IDE drives. If automatic detection is successful, the correct values will be filled in for the remaining fields on this sub-menu. The configuration options are: [Not Installed] [Auto] [CDROM] [ARMD]

LBA/Large Type [Auto]

When Logical Block Addressing is enabled, 28-bit addressing of the hard drive is used without regard for cylinders, heads, or sectors. Note that Logical Block Access may decrease the access speed of the hard disk. However, LBA Mode is necessary for drives with greater than 504MB in storage capacity. The configuration options are: [Disabled] [Auto]

Block [Auto]

Auto automatically sets the number of sectors per block to the highest number supported by the drive. Disabled - The data transfer from and to the device occurs one sector at a time. Auto - The data transfer from and to the device occurs multiple sectors at a time if the device supports it. The configuration options are: [Disabled] [Auto]

PIO Mode [Auto]

When enabled, this option speeds up communication between the system and the IDE controller by using enhanced I/O transfer modes (PIO Modes). Different speeds are supported by different generations of IDE devices. The configuration options are: [Auto] [0] [1] [2] [3] [4]

DMA Mode [Auto]

When enabled, this option speeds up communication between the system and the IDE controller by using DMA capability (for improved transfer speeds and data integrity) . Different speeds are supported by different generations of IDE devices. SW = Single Word, MW = Multiple Word, U = Ultra

Mode 0 = 16.7MB/s	Mode 1 = 25.0MB/s
Mode 2 = 33.3MB/s (ATA/33)	Mode 3 = 44.4MB/s
Mode 4 = 66.7MB/s (ATA/66)	Mode 5 = 100MB/s (ATA/100)

The configuration options are: [Auto] [SWDMA0...2] [MWDMA0...2] [UDMA0...4]

SMART Monitoring [Auto]

Self-Monitoring Analysis and Reporting Technology (S.M.A.R.T.) is an interface between a computer's BIOS and hard disk. It is a feature of the Enhanced Integrated Drive Electronics (EIDE) technology that controls access to the hard drive. If S.M.A.R.T is enabled, the BIOS can receive analytical information from the hard drive and determine whether to send the user a warning message about possible future failure of the hard drive. Ideally, this should allow you to take proactive actions to prevent impending disk crashes. The configuration options are: [Auto] [Disabled] [Enabled]

32Bit Data Transfer [Enabled]

Enables or disables 32-bit data transfers for supported devices. The configuration options are: [Disabled] [Enabled]

NOTE: Item headings in square brackets represent the default settings for those fields.

Display

Selecting this item from the previous menu displays the page as shown below.



Advanced display settings

Boot Display Device [CRT+LFP]

This item allows you to select which display output to use during system bootup. CRT is any display device connected to the monitor out connector. You can control the output device through software settings or keyboard hotkeys once you are inside the Windows operating system. LFP is the Notebook PC's own display panel. The configuration options are: [CRT] [LFP] [CRT+LFP]

Security

Selecting this item from the previous menu displays the page as shown below.



Security Settings

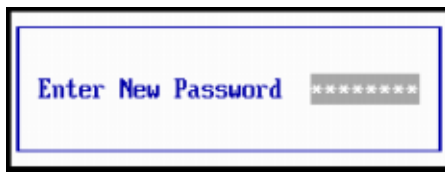
The BIOS Setup program allows you to specify passwords in the Security menu. The passwords control access to the BIOS and certain Security menu options during system startup. The passwords are not case sensitive. In other words, it makes no difference whether you enter a password using upper or lowercase letters.

The BIOS Setup program allows you to specify two separate passwords: a “Supervisor” password and a “User” password. When disabled, anyone may access all BIOS Setup program functions. When enabled, the Supervisor password is required for entering the BIOS Setup program and having full access to all Security menu options.

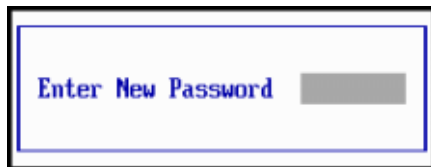
Change Supervisor Password / Change User Password

The system password protects the BIOS settings. When “Enabled”, you will be prompted for a password after you press [F2] to enter BIOS setup.

To set a password: Select “Change ... Password” and press [Enter], type a password (up to 8 letters/numbers) and press [Enter], type the same password again and press [Enter] to confirm. (You can type up to eight alphanumeric characters. Symbols and other keys are ignored.)



To remove a password: Select “Change ... Password” and press [Enter] without entering a password.



Hard Drive Security

Primary Master HD Password

A hard disk password places a protection on the hard disk drive so that a password is necessary in order to access the hard disk drive. When “Enabled”, the hard disk drive will be protected as follows:

- Hard drive password will be required on system bootup.
- Hard drive password will be required even to enter BIOS setup.
- The protected hard disk drive cannot be used as a master or slave drive on another computer.
- The protected hard disk drive cannot be formatted.

To Enable:

1. Select the item and press [Enter], type a password and press [Enter]
2. Type the same password again and press [Enter] to confirm. (You can type up to eight alphanumeric characters. Symbols and other keys are ignored.)

A message will be shown in BIOS when successful “Password installed.”

Future system bootup will display: “Hard Drive Locked, enter password:”.

If you enter the wrong password, you will see “Primary Master Hard Disk Error” “Press F1 to Resume”. Pressing F1 will display, “Reboot and Select proper Boot device or Insert Boot Media in selected Boot device and press a key”. Make sure that you use “Save Changes and Exit”.

To Disable:

Select the item and press [Enter] and enter the correct password. When asked for a new password, leave it blank and press [Enter]. A message will be displayed: “Password uninstalled.” Make sure that you use “Save Changes and Exit”.

> I/O Interface Security (see next page)

Boot Sector Virus Protection [Disabled]

This function will stop any attempt to modify hidden bootup files on your hard disk drive. This function may prevent some applications from installing properly. The configuration options are: [Disabled] [Enabled]

Security (sub-menu)

Selecting this item from the previous menu displays the page as shown below.



I/O Interface Security

MODEM Interface [UNLOCKED]

This allows you to enable or disable the built-in modem. The configuration options are: [UNLOCKED] [LOCKED]

LAN Network Interface [UNLOCKED]

This allows you to enable or disable the built-in wired network. The configuration options are: [UNLOCKED] [LOCKED]

Wireless Network Interface [UNLOCKED]

This allows you to enable or disable the built-in wireless network. The configuration options are: [UNLOCKED] [LOCKED]

Cardbus/1394/Card Reader Interfaces [UNLOCKED]

This allows you to enable or disable the built-in PC card slot and 1394 port. The configuration options are: [UNLOCKED] [LOCKED]

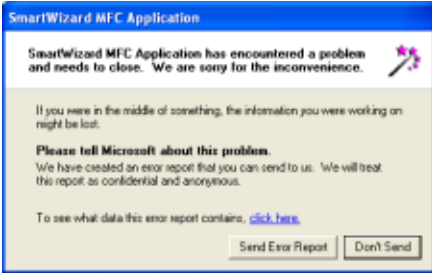
USB Interface [UNLOCKED]

This allows you to enable or disable the built-in USB ports. The configuration options are: [UNLOCKED] [LOCKED]

On Board Audio [UNLOCKED]

This allows you to enabled or disable the built-in Audio. The configuration options are: [UNLOCKED] [LOCKED]

Note: It is normal to see this message in Windows when you lock the Audio function. You should ignore this message and click “Don’t send.”



IR Interface [UNLOCKED]

This allows you to enabled or disable the built-in IR port. The configuration options are: [UNLOCKED] [LOCKED]

Power

Selecting this item from the previous menu displays the page as shown below.



Power Settings

Intel (R) SpeedStep(tm) tech. [Automatic]

This allows you to set the performance versus battery optimization method when AC power is applied or removed. The configuration options are: [Maximum Performance] [Battery Optimized] [Reversed] [Automatic] [Disabled]

LCD Power Saving [Enabled]

This allows you to set the performance versus battery optimization method when AC power is applied or removed. Enabled will dim the LCD display when using battery power. The configuration options are: [Disabled] [Enabled]

CPU Power Saving [Enabled]

This allows you to set the performance versus battery optimization method when AC power is applied or removed. Enabled will decrease the CPU speed when using battery power. The configuration options are: [Disabled] [Enabled]

Start Battery Calibration

This function will start a software program to remove memory effects in the battery and recalibrate the battery gauge. Even though this Notebook PC uses a Lithium-Ion battery which is not prone to memory effects, memory effects will still occur at the end of the battery's life cycle. Remember that all rechargeable batteries only have a definite number of charge and discharge cycles depending on environment and quality of the battery pack. **Follow the instructions shown on the screen.**

Boot

Selecting this item from the previous menu displays the page as shown below.



Boot Settings

- > **Boot Settings Configuration**
- > **Boot Device Priority**
- > **Hard Disk Drives**
- > **Removable Drives**
- > **ATAPI CDROM Drives**

Onboard LAN Boot ROM [Disabled]

This item allows you to enable or disable the built-in network device's boot ROM. When enabled you can select LAN as a boot device. Configuration options are: [Disabled] or [Enabled].

Device Explanations

Removable Device refer to the floppy disk used in the internal or USB floppy disk drive.

IDE Hard Drive refers to the internal built-in hard disk drive.

ATAPI CD-ROM refers to either the built-in CD-ROM drive or DVD-ROM drive.

Other Boot Device currently refers to booting from a network drive. To boot from LAN, "Onboard LAN Boot ROM" must be enabled.

Boot (sub-menu)

Selecting this item from the previous menu displays the page as shown below.



Boot Settings Configuration

Quick Boot [Enabled]

When enabled, BIOS will skip certain tests while booting. This will decrease the time needed to bootup the system. The configuration options are: [Disabled] [Enabled]

Quiet Boot [Enabled]

When disabled, BIOS will display normal POST messages. When enabled, BIOS will display a splash screen instead. The configuration options are: [Disabled] [Enabled]

NOTE: Item headings in square brackets represent the default settings for those fields.

Boot

Selecting this item from the previous menu displays the page as shown below.



Boot Device Priority

1st Boot Device [Removable Dev.]

Specifies the boot sequence from the available devices. A device enclosed in parenthesis has been disabled in the corresponding type menu. The configuration examples are: [Removable Dev.] [MITSUMI USB FDD] [PM-IC25N040ATMR04-] [ATAPI CDROM] [Disabled] (The configuration options depend on "Hard Disk Drives" in the previous menu.)

2nd Boot Device [PM-IC25N040ATMR04-] (your model may differ)

3rd Boot Device [SM-TOSHIBA DVD-ROM] (your model may differ)

NOTE: Item headings in square brackets represent the default settings for those fields.

Exit

Once you have made all of your selections from the various menus in the Setup program, you should save your changes and exit Setup. Select **Exit** from the menu bar to display the following menu:



Exit Options

Save Changes and Exit

Once you are finished making your selections, choose this option from the Exit menu to ensure the values you selected are saved to the CMOS RAM. The CMOS RAM is sustained by an onboard backup battery and stays on even when the Notebook PC is turned OFF. Once this option is selected, a confirmation is asked. Select **Yes** to save changes and exit.

Discard Changes and Exit

This option should only be used if you do not want to save the changes you have made to the Setup program. If you have made changes to the fields other than system date, system time, and password, the system will ask for confirmation before exiting.

Discard Changes

This option allows you to discard the selections you made and restore the values you previously saved. After selecting this option, all selections are updated and a confirmation is requested. Select **Yes** to discard any changes and load the previously saved values.

Load Optimal Defaults

This option allows you to load the “Optimal” values for each of the parameters on the Setup menus. When this option is selected or if [F9] is pressed, a confirmation is requested. Select **Yes** to load default values programmed into the BIOS file (the default values may change from one BIOS version to another). You can now select **Save Changes and Exit** or make other changes before saving the values.

Load Failsafe Defaults

This option allows you to load the “Safest” values for each of the parameters on the Setup menus. This option is for troubleshooting purposes only and will decrease performance as well as disable some of the Notebook PC’s functions. When this option is selected, a confirmation is requested. Select **Yes** to load default values programmed into the BIOS file (the default values may change from one BIOS version to another). You can now select **Save Changes and Exit** or make other changes before saving the values.

Copyright Information

No part of this manual, including the products and software described in it, may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form or by any means, except documentation kept by the purchaser for backup purposes, without the express written permission of ASUSTeK COMPUTER INC. (“ASUS”).

ASUS PROVIDES THIS MANUAL “AS IS” WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL ASUS, ITS DIRECTORS, OFFICERS, EMPLOYEES OR AGENTS BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES (INCLUDING DAMAGES FOR LOSS OF PROFITS, LOSS OF BUSINESS, LOSS OF USE OR DATA, INTERRUPTION OF BUSINESS AND THE LIKE), EVEN IF ASUS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES ARISING FROM ANY DEFECT OR ERROR IN THIS MANUAL OR PRODUCT.

Product warranty or service will not be extended if: (1) the product is repaired, modified or altered, unless such repair, modification or alteration is authorized in writing by ASUS; or (2) the serial number of the product is defaced or missing.

Products and corporate names appearing in this manual may or may not be registered trademarks or copyrights of their respective companies, and are used only for identification or explanation and to the owners’ benefit, without intent to infringe.

SPECIFICATIONS AND INFORMATION CONTAINED IN THIS MANUAL ARE FURNISHED FOR INFORMATIONAL USE ONLY, AND ARE SUBJECT TO CHANGE AT ANY TIME WITHOUT NOTICE, AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY ASUS. ASUS ASSUMES NO RESPONSIBILITY OR LIABILITY FOR ANY ERRORS OR INACCURACIES THAT MAY APPEAR IN THIS MANUAL, INCLUDING THE PRODUCTS AND SOFTWARE DESCRIBED IN IT.

Copyright © 2004 ASUSTeK COMPUTER INC. All Rights Reserved.

Limitation of Liability

Circumstances may arise where because of a default on ASUS’ part or other liability, you are entitled to recover damages from ASUS. In each such instance, regardless of the basis on which you are entitled to claim damages from ASUS, ASUS is liable for no more than damages for bodily injury (including death) and damage to real property and tangible personal property; or any other actual and direct damages resulted from omission or failure of performing legal duties under this Warranty Statement, up to the listed contract price of each product.

ASUS will only be responsible for or indemnify you for loss, damages or claims based in contract, tort or infringement under this Warranty Statement.

This limit also applies to ASUS’ suppliers and its reseller. It is the maximum for which ASUS, its suppliers, and your reseller are collectively responsible.

UNDER NO CIRCUMSTANCES IS ASUS LIABLE FOR ANY OF THE FOLLOWING: (1) THIRD-PARTY CLAIMS AGAINST YOU FOR DAMAGES; (2) LOSS OF, OR DAMAGE TO, YOUR RECORDS OR DATA; OR (3) SPECIAL, INCIDENTAL, OR INDIRECT DAMAGES OR FOR ANY ECONOMIC CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS OR SAVINGS), EVEN IF ASUS, ITS SUPPLIERS OR YOUR RESELLER IS INFORMED OF THEIR POSSIBILITY.

Contact Information

ASUSTeK COMPUTER INC. (Asia-Pacific)

Company Address: 15 Li-Te Road, Peitou, Taipei 112
General Telephone: +886-2-2894-3447 Web Site Address: www.asus.com.tw
General Fax: +886-2-2894-7798 General Email: info@asus.com.tw

Technical Support

MB/Others (Tel): +886-2-2890-7121 Networking (Tel): +886-2-2890-7902
Notebook (Tel): +886-2-2894-3447 Support Fax: +886-2-2890-7698
Desktop/Server (Tel): +886-2-2890-7123

ASUS COMPUTER INTERNATIONAL (America)

Company Address: 44370 Nobel Drive, Fremont, CA 94538, USA
General Fax: +1-510-608-4555 Web Site Address: usa.asus.com
General Email: tsd@asus.com

Technical Support

General Support: +1-502-995-0883 Support Email: notebooktsd@asus.com
Notebook (Tel): +1-510-739-3777 x5110 Support Fax: +1-502-933-8713

ASUS COMPUTER GmbH (Germany & Austria)

Company Address: Harkort Str. 25, D-40880 Ratingen, Germany
General Telephone: +49-2102-95990 Web Site Address: www.asuscom.de
General Fax: +49-2102-959911 Online Contact: www.asuscom.de/sales

Technical Support

Component Support: +49-2102-95990 Online Support: www.asuscom.de/support
Notebook Support: +49-2102-959910 Support Fax: +49-2102-959911