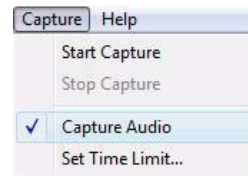
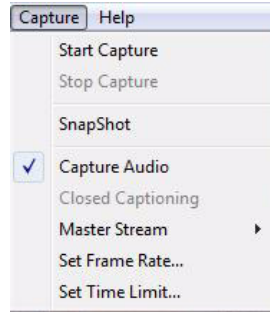
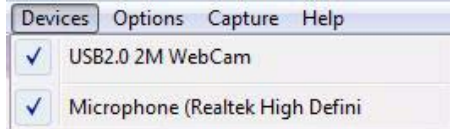
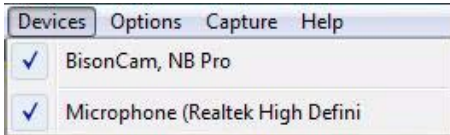


Figure 7 - 13  
Audio Setup for PC  
Camera





### Pre-Allocating File Space

You may pre-allocate the file size for the capture file in the **BisonCap** program. You can choose to ignore this by clicking **Cancel**.

Pre-allocating space on the hard disk can improve the capture quality (particularly of large capture files), by reducing the amount of work the hard disk has to do in finding space for the video data as it is being captured.

### BisonCap (for 1.3M pixel camera module)

**BisonCap** is a video viewer useful for general purpose video viewing and testing, and can capture video files to .avi format.

1. Run the **BisonCap** program from the **Start > Programs/All Programs > Bison-Cam** menu (it is recommended that you **set the capture file** before the capture process - **see Set Capture File below**).
2. Go to the **Capture** menu heading (if you wish to capture audio check **“PC Camera Audio Setup (all camera modules)” on page 7 - 18**) and select **Start Capture**.
3. On the first run of the program (if you have not set the captured file) you will be asked to choose a file name and size (**see the sidebar - Pre-Allocating File Space**) for the captured file. Click **Start Capture** again.
4. Click **OK** to start capturing the video, and press **Esc** to stop the capture.
5. If you wish to, you may go to the **File** menu and select **Save Captured Video As...**, choose a file name and location, and then click **Open** (you can view the file using the **Windows Media Player**).

### Set Capture File

In the **BisonCap** program you will only be asked to set the capture file name on the first run of the program. When you run the program the next time the file will automatically be overwritten with the newly captured file. To avoid overwriting files you can go to the **Set Capture File..** option in the **File** menu, and set the file name and location before capture. Set the name and location then click **Open** (you can choose **Cancel** to ignore the file size if prompted).

### Eliminating Screen Flicker (BisonCap)

If you find that the video screen in the **BisonCap** program is flickering, you can try to adjust the setting in the **Video Capture Filter** options.

1. Run the **BisonCap** program.
2. Go to **Options** and scroll down to select **Video Capture Filter....**
3. Click either **50Hz** or **60Hz** under **Frequency** in **Property Page** (tab).

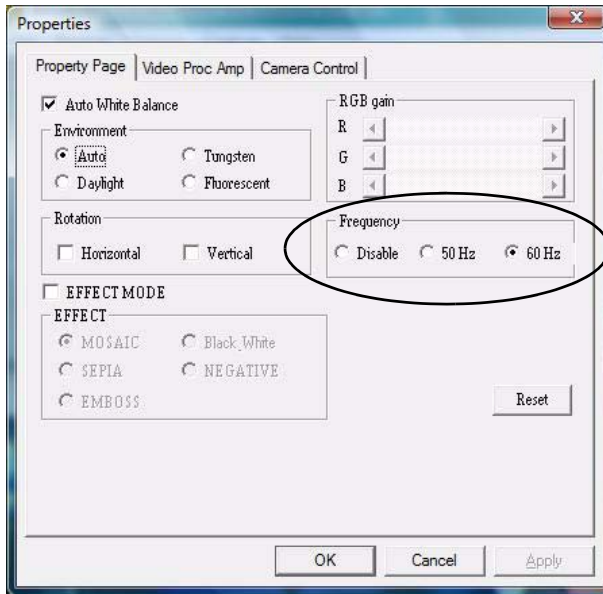


Figure 7 - 14  
Video Capture Filter



### Pre-Allocating File Space

You may pre-allocate the file size for the capture file in the **Video View** program.

Pre-allocating space on the hard disk can improve the capture quality (particularly of large capture files), by reducing the amount of work the hard disk has to do in finding space for the video data as it is being captured.

### Video View (for 2.0M pixel camera module)

**Video View** is a video viewer useful for general purpose video viewing and testing, and can capture video files to .avi format.

1. Run the **Video View** program from the **Start > Programs/All Programs > USB2.0 PC Camera** menu (it is recommended that you **set the capture file** before the capture process - **see Set Capture File below**).
2. Go to the **Capture** menu heading (if you wish to capture audio check **“PC Camera Audio Setup (all camera modules)” on page 7 - 18**) and select **Start Capture**.
3. Click **OK** (the file location will be displayed in the pop-up box) to start capturing the video, and press **Esc** to stop the capture.

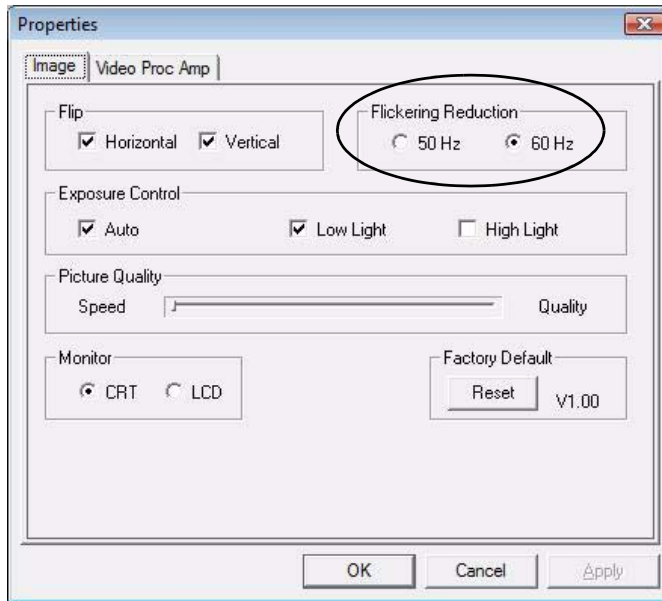
### Set Capture File

Prior to capturing video files you may **Set Capture File...** To avoid overwriting files you can go to the **Set Capture File..** option in the **File** menu, and set the file name and location before capture. Set the name and location then click **Open** (you can choose **Cancel** to ignore the file size if prompted).

## Eliminating Screen Flicker (Video View)

If you find that the video screen in the **Video View** program is flickering, you can try to adjust the setting in the **Video Capture Filter** options.

1. Run the **Video View** program.
2. Go to **Options** and scroll down to select **Video Capture Filter...**
3. Click either **50Hz** or **60Hz** under **Flickering Reduction in Image** (tab).



*Figure 7 - 15*  
**Video Capture Filter**

### Zoom (Video View)

If you have enabled digital zoom when installing the **2.0M Pixel Camera** driver you may use the **Options > Setting** menu to zoom the camera in and out.

*Figure 7 - 16*  
**Setting**

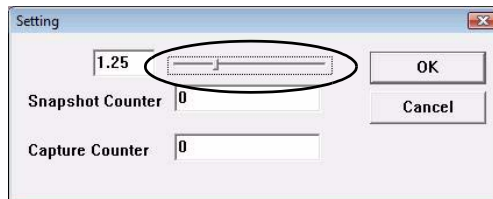


#### Snapshot Folder

The Snapshot folder's default location is on the desktop. Do not move this folder or an error may appear when you try to take a still picture.

If you accidentally delete or move the folder, you can create a new Snapshot folder on the desktop in order to capture the files.

1. Run the **Video View** program.
2. Go to **Options** and scroll down to select **Setting**.
3. Use the slider to adjust the zoom level, and click **OK** to save the setting.



### Still Image Capture (Video View)

You can capture still images by using the **Snapshot** command from the **Capture** menu.

1. Run the **Video View** program.
2. Go to **Capture** and select **Snapshot**.
3. The picture (in JPEG format) will be placed in the **Snapshot** folder on the desktop.



*Figure 7 - 17*  
**Snapshot Folder**

# Trusted Platform Module

Before setting up the TPM functions you must initialize the security platform.

## Initializing TPM

1. Restart the computer.
2. Enter the **PhoenixBIOS Setup Utility** by pressing **F2** during the **POST**.
3. Use the arrow keys to select the **Security** menu.
4. Select **TPM Support** and set the item to **Enabled**.
5. The **TPM State** menu will then appear.

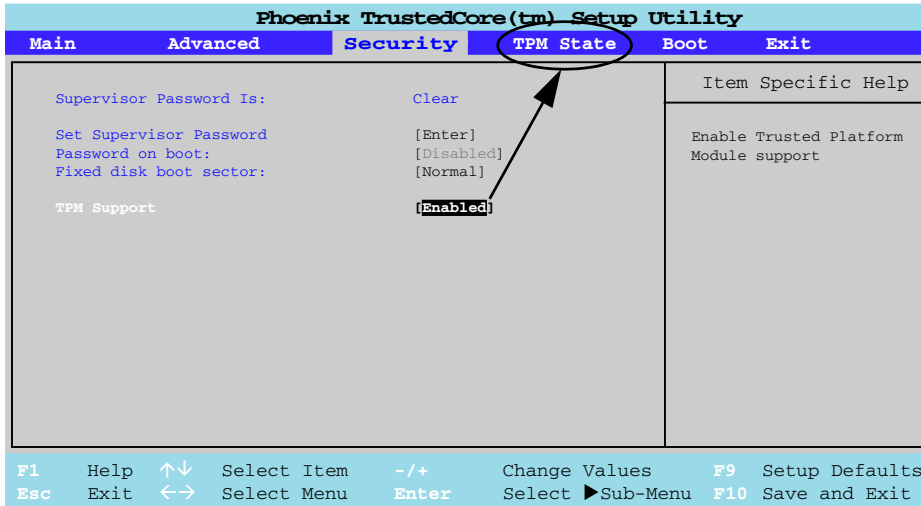
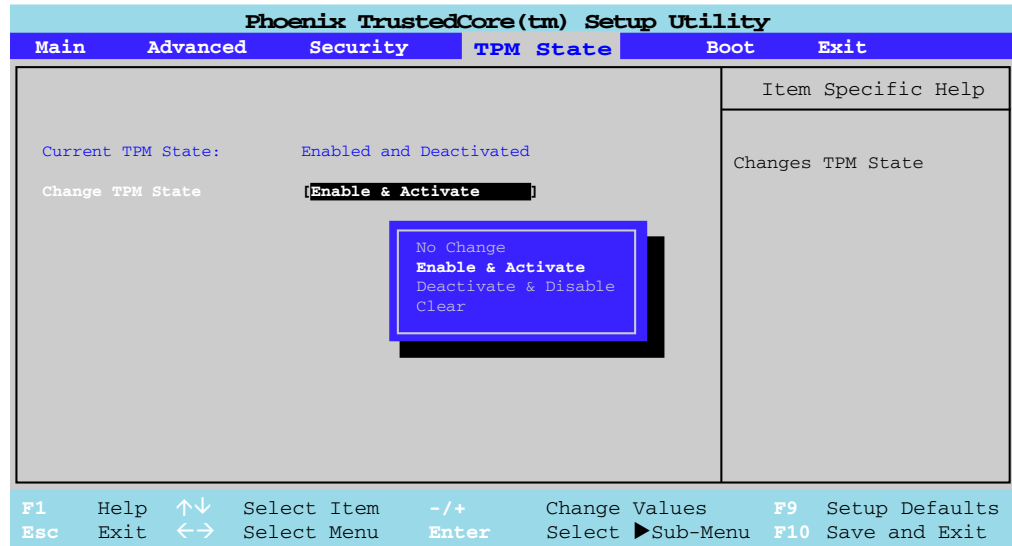


Figure 7 - 18  
TPM Support

## Modules & Options

- Use the arrow keys to select the **TPM State** menu.
- Select **TPM State**, and set the item to **Enable & Activate**.

Figure 7 - 19  
TPM State



- Press **F10** to save the changed BIOS information, exit the BIOS and restart the computer.
- If you make any changes to the TPM State you will be asked to **Execute/Reject** the change after restart ("**Physical Presence Operations**" on page 5 - 13).
- You can now install the TPM driver (see overleaf).



## TPM Module Driver Installation

1. Insert the *Device Drivers & Utilities + User's Manual CD-ROM (Win Vista)* into the CD/DVD drive.
2. Click **Install Option Drivers** (button).
3. Click **4.Install TPM Driver > Yes**.
4. Click **Next**.
5. Click the button to accept the license agreement, and then click **Next**.
6. Click **Next > Next > Install**.
7. Click **Finish**.
8. Run the **TPM** application program from the shortcut on the desktop, or from the **TPM Secure Tools** item in the **Start > Programs/All Programs** menu.



### Password Warning

Do not lose the password. If you do so you will be unable to make administrative changes unless you clear the TPM. This could then result in data loss.

### Recovery Token

Note the location of the emergency recovery token. It is recommended that you save the file to removable media such as a USB Flash drive (or backup using the tool provided - see page 7 - 36).

## Initializing TPM

On the first run of the program you will need to initialize the TPM.

1. Run the application from the **Security Manager** shortcut on the desktop, or from the **TPM Secure Tools** item in the **Start > Programs/All Programs** menu.
2. Click **Next**.
3. Type a **TPM Owner Password**, and then retype to confirm the password.
4. Click **Next** (you may want to add Owner Password Tips) > **Next** to begin the owner initialization process.
5. Click **Finish** to start **User Initialization** process.

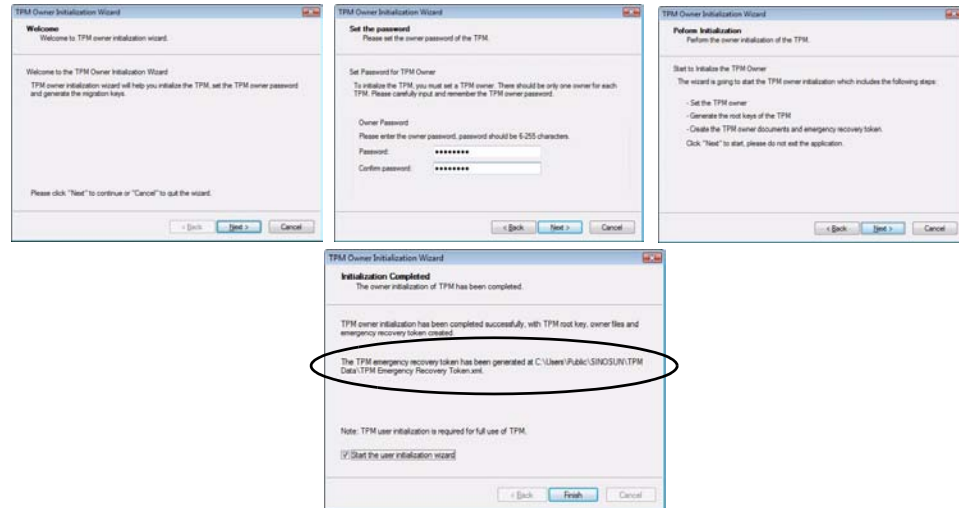
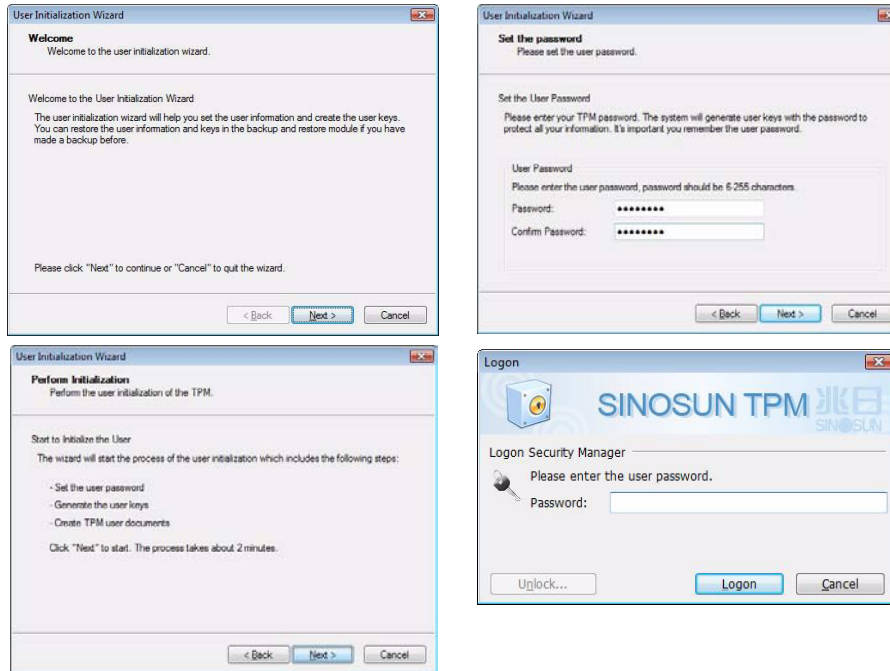


Figure 7 - 20  
TPM Owner  
Initialization

6. Click **Next**.
7. Type a **TPM User Password**, and then retype to confirm the password.
8. Click **Next >** (you may want to add Owner Password Tips) **Next** to begin the user initialization process.
9. Click **Finish** and then enter the user password and click **Logon**.

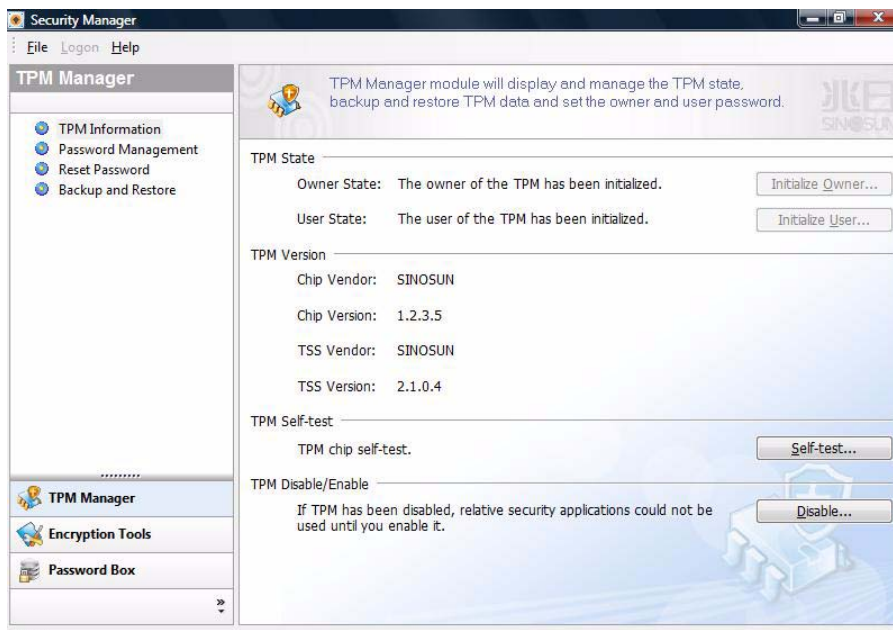


*Figure 7 - 21*  
**TPM User Initialization & Logon**

### TPM Manager

The TPM Manager allows you to manage and check the TPM state, manage your password information, and to backup and restore the TPM data. As TPM is usually administered within large enterprises and organizations, your system administrator will need to assist you in managing the information in the TPM Manager.

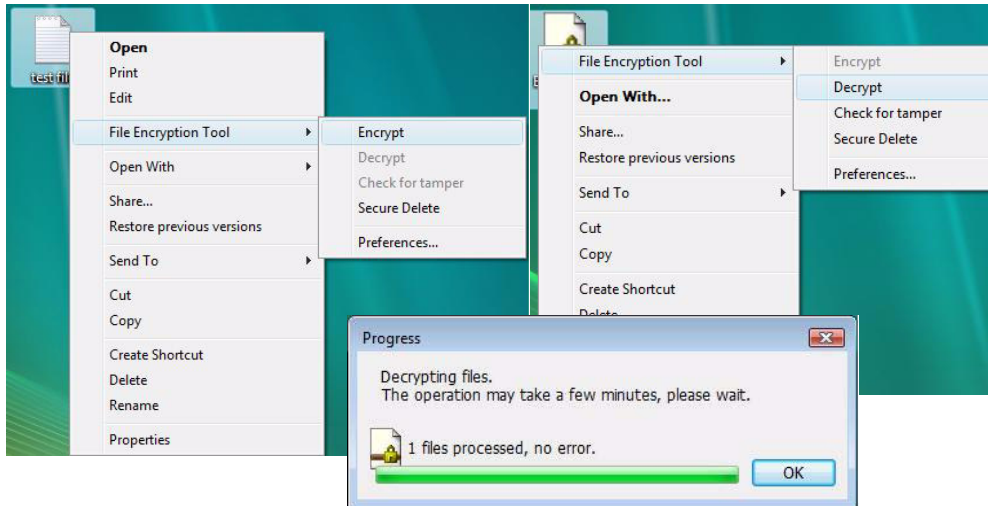
*Figure 7 - 22*  
**TPM Manager**  
(TPM Information)



## Encrypting/Decrypting a File

You can encrypt and decrypt files from the context menu in *Windows*.

1. **Right-click** the file icon to bring up the context menu.
2. Select **File Encryption Tool**.
3. Select **Encrypt/Decrypt**.
4. The file will then be encrypted/decrypted.
5. Click **OK**.



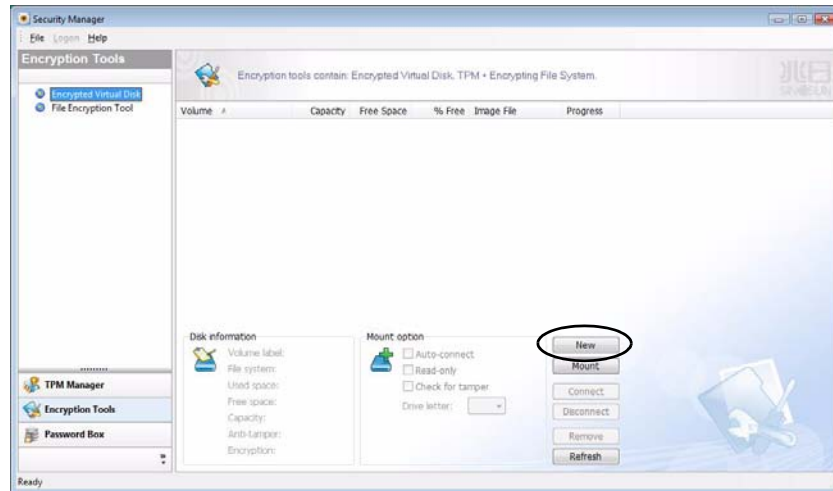
*Figure 7 - 23*  
**Encrypting/Decrypting  
a File**

### Creating an Encrypted Virtual Disk

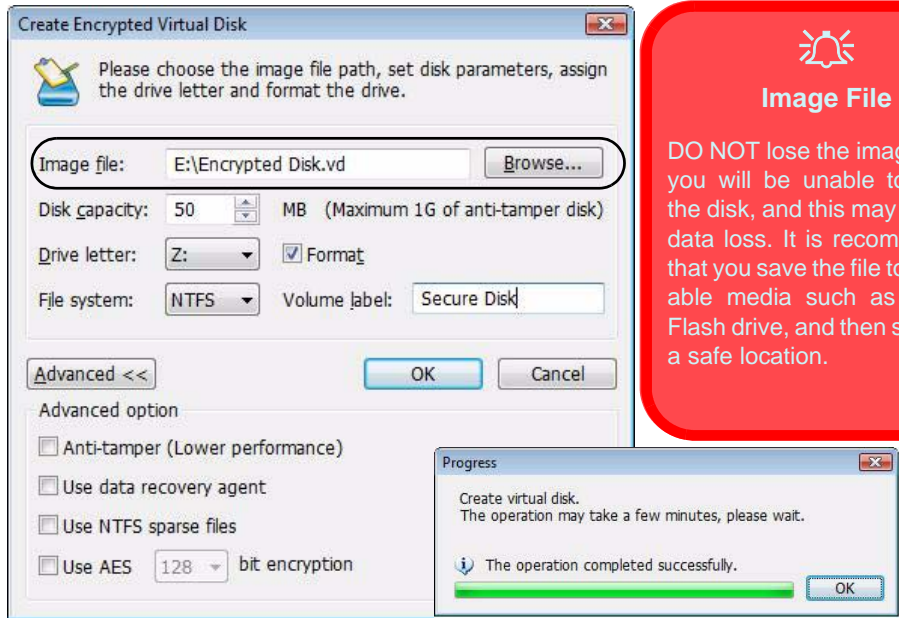
You can create an encrypted virtual disk drive (an area of the hard disk you can hide and mount when required) from the **Security Manager** application.

1. Run the application from the **Security Manager** shortcut on the desktop, or from the **TPM Secure Tools** item in the **Start > Programs/All Programs** menu.
2. Click **Encryption Tools**.
3. Click **Encrypted Virtual Disk**.
4. Click **New**.

*Figure 7 - 24*  
Encrypted Virtual Disk



5. Type in the Image File name, Volume Label, location (Browse to file location) and capacity in MB (maximum size is 1GB).
6. Click **OK**.
7. The disk will now be created.
8. Click **OK**.



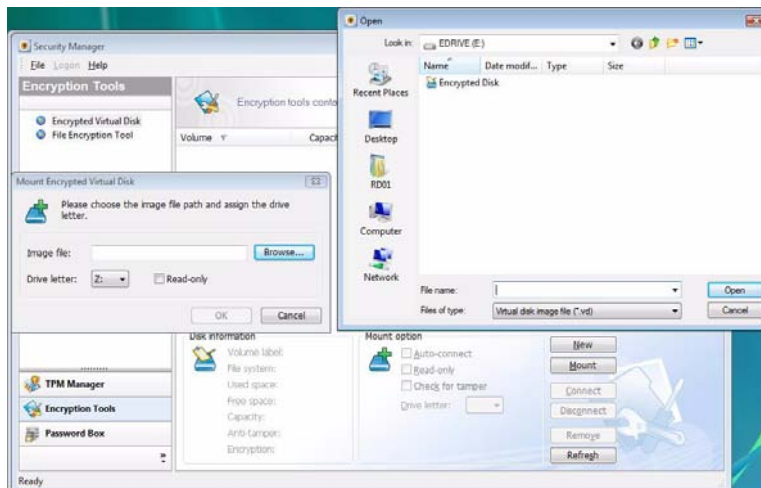
*Figure 7 - 25*  
**Create Encrypted Virtual Disk**

### Mounting and Removing an Encrypted Virtual Disk

You can mount and remove the disk using the **Security Manager** application.

1. Run the application from the **Security Manager** shortcut on the desktop, or from the **TPM Secure Tools** item in the **Start > Programs/All Programs** menu.
2. Click **Encryption Tools**.
3. Click **Encrypted Virtual Disk**.
4. Click **Mount** to bring up any virtual disk, or click **Remove** to hide the disk.
5. When mounting a disk you will be asked to browse to the image file.

*Figure 7 - 26*  
**Mount Encrypted  
Virtual Disk**

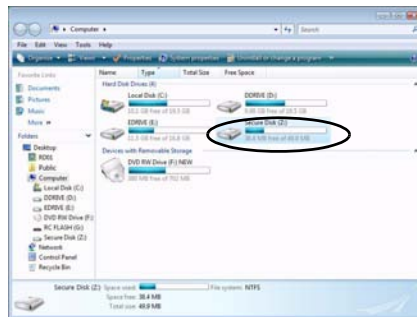




6. **Mounting** the disk will require the encrypted image file.
7. If you click **Disconnect** you can hide the disk without the need to browse to the encrypted image file (simply click **Connect** to bring up disk again).
8. Clicking **Remove** will clear the disk information from the menu (the data is still safe), and you will be required to **Mount** the disk again to access it (by accessing the encrypted image file).



Figure 7 - 27  
Encrypted Virtual Disk



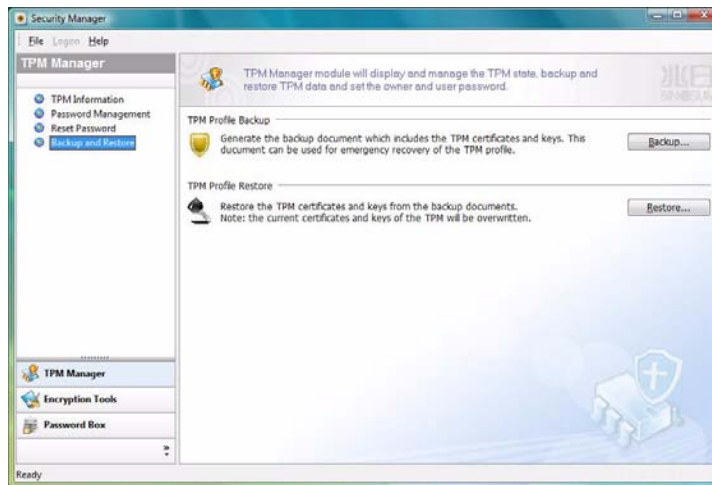
### Backing up a TPM Profile

It is recommended that you backup your TPM profile and save it to a safe location (DO NOT save the file to a virtual disk).

1. Run the application from the **Security Manager** shortcut on the desktop, or from the **TPM Secure Tools** item in the **Start > Programs/All Programs** menu.
2. Click **Backup and Restore**.
3. Click **Backup > Next**.
4. Click **Browse.. (button)** to save the file to a removable media.
5. Click **Next > Next > Finish**.
6. The file can be restored from the **Backup and Restore** menu.

7

*Figure 7 - 28*  
**Backup and Restore**



## 3.5G Module

If you have included an optional 3.5G module (see *“Communication” on page A - 4* for specification details) in your purchase option, you will have the appropriate software provided for your module. Follow the instructions below to install the USIM card (which will be provided by your service provider), and then install the application.

Before installing the **application**, make sure that the 3.5G module is on. Use the **Fn** + **\_** (🔌) **key combination** (see *“Function/Hot Key Indicators” on page 1 - 10*) to **toggle power to the 3.5G module**. Make sure you install the drivers in the order indicated in *Table , on page 4 - 3*.

1. Turn **off** the computer, and turn it over and **remove the battery**.
2. Locate the hard disk bay cover and loosen screws ❶ & ❷.
3. Remove the hard disk bay cover ❸.
4. Grip the tab and slide the hard disk in the direction of arrow ❹ to remove it.



Figure 7 - 29  
Hard Disk Removal



### Power Safety Warning

Before you undertake any installation procedures, make sure that you have turned off the power, and disconnected all peripherals and cables (including telephone lines). It is advisable to also remove your battery in order to prevent accidentally turning the machine on.

## Modules & Options

5. Insert the USIM card as you would into your mobile phone.
6. The 3.5G module **5** is pictured on the left, and the installed USIM card **6** on the right in *Figure 7 - 30*.

*Figure 7 - 30*  
**Module and USIM  
Card Location**

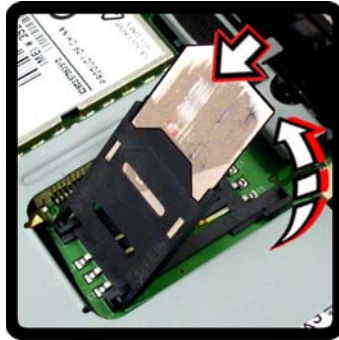


7. Slide the SIMLOCK in the direction of the arrow **7** (*Figure 7 - 31*) in order to release the lock and lift it up.

*Figure 7 - 31*  
**SIMLOCK Unlock**

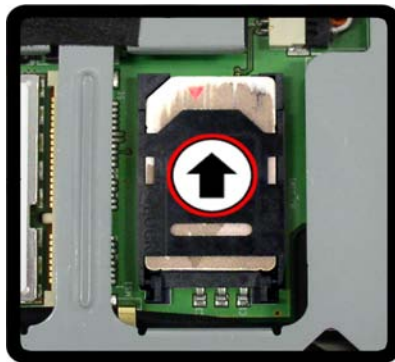


8. Insert the SIM card as illustrated in (Figure 7 - 32) and close the SIMLOCK.



*Figure 7 - 32*  
Insert the USIM  
Card

9. Close the SIMLOCK by pushing it in the direction of the arrow in Figure 7 - 33.




*Figure 7 - 33*  
SIMLOCK Lock

10. Replace the hard disk assembly, cover, screws and battery etc.



### Wireless Device Operation Aboard Aircraft





The use of any portable electronic transmission devices aboard aircraft is usually prohibited. Make sure the module(s) are OFF if you are using the computer aboard aircraft.

Use the **Fn + ** key combination to toggle power to the 3.5G module, and check the indicator to see if the module is powered on or not (see [Table 1 - 5, on page 1 - 10](#) [Table 1 - 3, on page 1 - 7](#)).

## 3G Watcher Application





With the 3.5G module and USIM card (provided by your service provider) installed you may then install the 3G Watcher application. The 3.5G Watcher application allows you to directly access your 3.5G internet service from the computer.

## 3G Watcher Application Installation

1. Insert the *Device Drivers & Utilities + User's Manual CD-ROM (Win Vista)* into the CD/DVD drive.
2. Click **Install Option Drivers** (button).
3. Click **4.Install 3G Driver > Yes** (or **5.Install 3G Driver** if TPM is enabled).
4. Click **Next**.
5. Choose your region, and click **Next**.
6. Click the button to accept the license agreement, and then click **Next**.
7. Click **Next > Install**.
8. Click **Finish**, and the **3G Watcher** icon  will appear on the desktop.
9. You can access the **3G Watcher** application from the **Start** menu (**Start > Programs/All Programs > Sierra Wireless > 3G Watcher**), or by clicking the desktop icon .
10. Make sure you enable power to the module by pressing the **Fn + ** key combination (the icon  will be green).

## Setting Up a Carrier Profile

Although the connection information is stored on the USIM card supplied by the service provider, you will need to set up the appropriate carrier profile from the 3G Watcher software.

1. Power on the 3.5G module using the **Fn +**  key combination (the icon  will be green).
2. Access the **3G Watcher** application from the **Start** menu (**Start > Programs/All Programs > Sierra Wireless > 3G Watcher**), or by clicking the desktop icon .
3. Click **Tools** and select **Options**.
4. Click **Profiles** and then click the **Add new profile** button , and select **WWAN profile**.

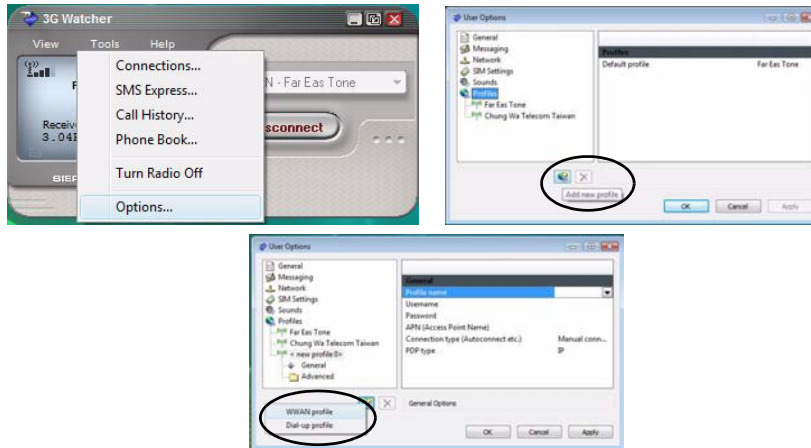


Figure 7 - 34  
Add WWAN Profile

## Modules & Options

Figure 7 - 35  
User Options



### Profile Details

If you have chosen the profile from the drop-down list then most of the information in the **General** and **Advanced** tabs should be automatically filled in for you (however check with your service provider for the latest information as you may at least need to add in your **Username** and **Password**).

Figure 7 - 36  
Choose Profile

5. You can then enter a new profile name or choose a profile from the drop-down list provided by the software (see the **sidebars** for information on the profile details).

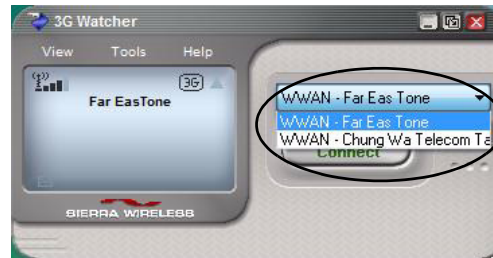


### Profile Information

Click **General** and/or **Advanced** (and the **sub-menus** under **Advanced**) in the left menu, and then click in any of the fields to add the appropriate information supplied by your service provider.






6. Click **Apply** > **OK** to save the information.
7. You can choose the profile from the pull-down menu.






### Connecting to the Service Provider

1. Power on the 3.5G module using the **Fn +**  key combination (the icon  will be green).
2. You can access the **3G Watcher** application from the **Start** menu (**Start > Programs/All Programs > Sierra Wireless > 3G Watcher**), or by clicking the desktop icon .
3. The software will run and display the service provider name (see **“Setting Up a Carrier Profile” on page 7 - 41**).



4. Click **Connect**  to begin the connection process.
5. The **3G Watcher** application will then display the connection information in the window.






## Modules & Options

- When the connection is successful a taskbar notification will appear (as below).



*Figure 7 - 37*  
**Connected  
Taskbar  
Notification**



- You can then access the internet, download e-mail etc. as per any internet connection.
- While you are connected the taskbar icon will be green  (it will be red  when the program is running but not connected).
- To disconnect click the **Disconnect**  icon.

*Figure 7 - 38*  
**3GWatcher  
Connected**




- The program will disconnect from the service provider.
- The module will still be on, and you will need to press the **Fn + \_** () key combination (the icon  will be off when disconnected).

12. If you click the **3G Watcher** close icon  a message will be displayed asking you to click **OK** to confirm the program exit.




*Figure 7 - 39*  
**Exit Warning**

13. Exiting the program DOES NOT turn off the 3.5G module, and you will need to press the **Fn +**  key combination to turn off the module (pay careful attention to this aboard aircraft - see [“Wireless Device Operation Aboard Aircraft” on page 7 - 40](#)).
14. If the module is on and the computer enters a power-saving state, then the power status of the module on resuming from the power-saving state will be as below:
- If the 3.5G module is on and the computer is **Shut Down**; the module will be **off** when the computer starts up.
  - If the 3.5G module is on and the computer enters **Sleep**; the module will be **on** when the computer resumes from sleep.
  - If the 3.5G module is on and the computer enters **Hibernate**; the module will be **off** when the computer starts up.
  - If the 3.5G module is on and you **Restart** the computer; the module will be **on** when the computer starts up.


### Short Messaging Service

In addition to standard internet services you may also send and receive SMS text messages using the **3G Watcher** program, if your service supports SMS.

#### Reading SMS Messages

1. The SMS message indicator  in the main window will notify you of any new messages received.
2. Double-click the icon  or select **Tools > SMS Express**.
3. Select the inbox folder and select any message to read it.
4. You cannot receive any new messages if the USIM card becomes full so you will need to delete some of the messages in order to free up space on the USIM card.

#### Creating and Sending SMS Messages

1. Double-click the icon  or select **Tools > SMS Express**.
2. Select **File > New Message** or click the **New** button.
3. Enter the recipient's number in the **To..** field or click the **To..** button to select an entry from the phone book, and click the **Message** button.
4. Type in the message details in the message body area.
5. Click the **Send** button (or save the message to send later).

For more details on SMS see **3GWatcher Online Help** from the **Help > Help Topics** menu.

# Chapter 8: Troubleshooting

## Overview

Should you have any problems with your computer, before consulting your service representative, you may want to try to solve the problem yourself. This chapter lists some common problems and their possible solutions. This can't anticipate every problem, but you should check here before you panic. If you don't find the answer in these pages, make sure you have followed the instructions carefully and observed the safety precautions in the preface. If all else fails, talk to your service representative. You should also make a record of what happened and what remedies you tried.

Of course, if something goes wrong, it will happen at the most inconvenient time possible, so you should preview this section just in case. If, after you've tried everything, and the system still won't cooperate, try turning it off for a few minutes and then rebooting. You will lose any unsaved data, but it may start working again. Then call your service representative.

# Basic Hints and Tips

Many of the following may seem obvious but they are often the solution to a problem when your computer appears not to be working.

- **Power** - Is the computer actually plugged into a working electrical outlet? If plugged into a **power strip**, make sure it is actually working. Check the **LED Power & Communication Indicators** (see “*LED Indicators*” on page 1 - 7) to see the computer’s power status.
- **Connections** - Check all the **cables** to make sure that there are no **loose connections** anywhere.
- **Power Savings** - Make sure that the system is not in **Hibernate** or **Sleep** mode by pressing the keys configured in your *Power Options* (see “*Power-Saving States*” on page 3 - 6), the **Fn + F4** key combination, or power button to wake-up the system.
- **Brightness** - Check the brightness of the screen by pressing the **Fn + F8 and F9** keys to adjust the brightness.
- **Display Choice** - Press **Fn + F7** to make sure the system is not set to “external only” display.
- **Boot Drive** - Make sure there are no **optical media and/or USB storage devices** in any connected drive (this is a common cause of the message “*Invalid system disk - Replace the disk, and then press any key*” / “*Remove disks or other media. Press any key to restart*”).

## Backup and General Maintenance

- Always **backup** your important data, and keep copies of your OS and programs safe, but close to hand. Don't forget to note the **serial numbers** if you are storing them out of their original cases, e.g. in a CD wallet.
- Run **maintenance programs** on your hard disk and OS as often as you can. You may schedule these programs to run at times when you are not using your computer. You can use those that are provided free with your OS, or buy the more powerful dedicated programs to do so.
- Write down your passwords and keep them safe (away from your computer). This is especially important if you choose to use a **Supervisor** password for the BIOS (see *“The Power-On Self Test (POST)” on page 5 - 2*).
- Keep copies of vital **settings files** such as network, dialup settings, mail settings etc.(even if just brief notes).



### Warranty

The CPU is not a user serviceable part. Opening this compartment, or accessing the CPU in any way, may violate your warranty.

# Viruses

- Install an **Anti-Virus** program and keep the **definitions file** (the file which tells your program which viruses to look for) up to date. New computer viruses are discovered daily, and some of them may seriously harm your computer and cause you to lose data. **Anti-Virus** programs are commercially available and the **definitions file updates** are usually downloadable directly from the internet.
- Be careful when opening e-mail from sources you don't know. **Viruses** are often triggered from within **e-mail attachments** so take care when opening any attached file. You can configure most **Anti-Virus** programs to check all **e-mail attachments**. **Note:** You should also beware of files from people you know as the virus may have infected an **address book** and been automatically forwarded without the person's knowledge.
- Keep a "**Bootable CD-ROM/DVD-ROM/USB storage device**" (this CD/DVD/USB device provides basic information which allows you to startup your computer) handy. You may refer to your OS's documentation for instructions on how to make one, and many **Anti-Virus** programs will also provide such a disk (or at least instructions on how to make one).




## Upgrading and Adding New Hardware/Software

- Do not be tempted to make changes to your **Windows Registry** unless you are very sure of what you are doing, otherwise you will risk severely damaging your system.
- Don't open your computer or undertake any repair or upgrade work if you are not comfortable with what you are doing.
- Read the **documentation**. We can assume, since you are reading this that you are looking at the computer's manual, but what about any new peripheral devices you have just purchased? Many problems are caused by the installation of new hardware and/or software. Always refer to the documentation of any new hardware and/or software, and pay particular attention to files entitled "**READ ME**" or "**READ ME FIRST**".
- When installing a new device always make sure the device is powered on, and in many cases you will need to restart the computer. Always check that all the cables are correctly connected.
- Make sure you have installed the **drivers** for any new hardware you have installed (latest **driver files** are usually available to download from vendor's websites).

## Troubleshooting


- Thoroughly check any **recent changes** you made to your system as these changes may affect one or more system components, or software programs. If possible, go back and undo the change you just made and see if the problem still occurs.
- Don't over complicate things. The less you have to deal with then the easier the source of the problem may be found; **Example** - if your computer has many devices plugged into its ports, and a number of programs running, then it will be difficult to determine the cause of a problem. Try disconnecting all of the devices and restarting the computer with all the peripheral devices unplugged. A process of elimination (adding and removing devices and restarting where necessary) will often find the source of a problem, although this may be time consuming.

## Problems and Possible Solutions





Problem	Possible Cause - Solution
<p>You turned on the <b>power</b> but it doesn't work.</p>	<p><i>Battery missing / incorrectly installed.</i> Check the battery bay, make sure the battery is present and seated properly (the design of the battery only allows it to go in one way). Make sure there's nothing interfering with the battery contacts.</p>
<p>The battery <b>LED power</b> indicator , is blinking orange.</p>	<p><i>Low Battery.</i> Plug in the DC power source. If the computer doesn't start up immediately, turn it off then on again.</p>
<p>You are <b>losing battery power</b> too quickly.</p>	<p><i>The system is using too much power.</i> If your OS has a <i>Power Options</i> scheme (see "<a href="#">Power Plans</a>" on page 3 - 4/"<a href="#">Power Schemes</a>" on page D - 18) check its settings. You may also be using an ExpressCard/USB device/external device that is drawing a lot of power.</p>
<p>Actual <b>battery operating time</b> is shorter than expected.</p>	<p><i>The battery has not been fully discharged before being recharged.</i> Make sure the battery is fully discharged and recharge it completely before reusing (see "<a href="#">Battery Information</a>" on page 3 - 10/"<a href="#">Battery Information</a>" on page D - 23).</p> <p><i>Power Options have been disabled.</i> Go to the <b>Control Panel</b> in <i>Windows</i> and re-enable the options.</p> <p><i>A peripheral device/USB device/ExpressCard is consuming a lot of power.</i> Turn off/remove the unused device to save power.</p>

## Troubleshooting

Problem	Possible Cause - Solution
<p>The computer feels <b>too hot</b>.</p>	<p>Make sure the computer is properly ventilated and the Vent/Fan intakes are not blocked. If this doesn't cool it down, put the system into <b>Hibernate</b> mode or turn it off for an hour. Make sure the computer isn't sitting on a thermal surface (see <a href="#">“Overheating” on page 1 - 14</a>). Make sure you're using the correct adapter.</p> <p>Make sure that your notebook is completely powered off before putting it into a travel bag (or any such container). Putting a notebook which is powered on in a travel bag may cause the Vent/Fan intakes to be blocked.</p>
<p><b>Nothing appears</b> on screen.</p>	<p><i>The system is in a power saving mode.</i> Toggle the sleep/resume key combination, <b>Fn + F4</b> (see <a href="#">“Configuring the Power Buttons” on page 3 - 8</a>/<a href="#">“Configuring the Power Button” on page D - 22</a>).</p> <p><i>The screen controls need to be adjusted.</i> Toggle the screen control key combinations <b>Fn + F8/F9</b>. If you're connected to an external monitor, make sure it's plugged in and turned on. You should also check the monitor's own brightness and contrast controls.</p> <p><i>The computer is set for a different display.</i> Toggle the screen display key combination, <b>Fn + F7</b>. If an external monitor is connected, turn it on.</p> <p><i>The <b>screen saver</b> is activated.</i> Press any key or touch the <b>TouchPad</b>.</p>
<p>No image appears on the <b>external monitor</b> I have plugged in and powered on.</p>	<p><i>You haven't installed the video driver and configured it appropriately from the <b>Control Panel</b>.</i> See <a href="#">Appendix B/“Video Features” on page D - 7</a> for instructions on installing and configuring the video driver.</p>

Problem	Possible Cause - Solution
You forget the <b>boot password</b> .	<i>If you forget the password, you may have to discharge the battery of the CMOS. Contact your service representative for help.</i>
 <p><b>Password Warning</b></p> <p>If you choose to set a boot password, <b>NEVER</b> forget your password. The consequences of this could be serious. If you cannot remember your boot password you must contact your vendor and you may lose all of the information on your hard disk.</p>	
The sound cannot be heard or the <b>volume is very low</b> .	<i>The volume might be set too low. Check the volume control in the <b>Volume Control Panel</b> in the Windows taskbar, or use the key combination <b>Fn + F5</b> and <b>F6</b> (see <b>“Function/Hot Key Indicators” on page 1 - 10</b>) to adjust.</i>
The CD/DVD <b>cannot be read</b> .	<i>The CD/DVD is dirty. Clean it with a CD/DVD cleaner kit.</i>
The CD/DVD <b>tray will not open</b> when there is a disc in the tray.	<i>The CD/DVD is not correctly placed in the tray. Gently try to remove the disc using the eject hole (see <b>“Loading Discs” on page 2 - 3</b>).</i>
The <b>DVD regional codes</b> can no longer be changed.	<i>The code has been changed the maximum <b>5</b> times. See <b>“DVD Regional Codes” on page 2 - 5/ “DVD Regional Codes” on page D - 2</b>.</i>

## Troubleshooting

Problem	Possible Cause - Solution
<b>Unwelcome numbers</b> appear when typing.	If the LED  is lit, then Num Lock is turned <b>ON</b> . (see <a href="#">“LED Indicators” on page 1 - 7</a> ).
 <h3>Other Keyboards</h3> <p>If your keyboard is damaged or you just want to make a change, you can use any standard USB keyboard. The system will detect and enable it automatically. However special functions/hot keys unique to the system's regular keyboard may not work.</p>	
The <b>system freezes</b> or the screen goes dark.	<i>The system's power saving features have timed-out.</i> Use the AC/DC adapter, press the sleep ( <b>Fn + F4</b> ) key combination, or press the power button if no LEDs are lit.
The system never goes into a <b>power saving mode</b> .	Power Options features are not enabled. Go to the <b>Windows</b> Power Options menu and enable the features you prefer (see <a href="#">“Power-Saving States” on page 3 - 6</a> / <a href="#">“System Power Options” on page D - 20</a> ). Make sure you have enabled <b>Hibernate</b> mode from the control panel.
The <b>Wireless LAN/Bluetooth/3.5G</b> modules cannot be detected.	<i>The modules are off.</i> Check the LED indicator  and/or function key indicator to see if the WLAN/Bluetooth/3.5G module is on or off (see <a href="#">“LED Indicators” on page 1 - 7</a> ). If the LED indicator is off, then press the <b>Fn + F11 (WLAN)</b> , <b>Fn + F12 (Bluetooth)</b> or <b>Fn +  (3.5G)</b> key combination(s) in order to enable the modules (see <a href="#">“Function/Hot Key Indicators” on page 1 - 10</a> ).

Problem	Possible Cause - Solution
The <b>PC Camera</b> module cannot be detected.	<i>The module is off. Press the <b>Fn + F10</b> key combination in order to enable the module (see “<b>Function/Hot Key Indicators</b>” on page 1 - 10). Run the <b>BisonCap/Video View</b> program to view the camera picture.</i>
The <b>Wireless LAN/ Bluetooth/ PC Camera/ 3.5G</b> modules cannot be configured.	The driver(s) for the module(s) have not been installed. Make sure you have installed the driver for the appropriate module (see the instructions for the appropriate module in “ <b>Modules &amp; Options</b> ” on page 7 - 1/“ <b>Module Drivers</b> ” on page D - 31).










# Appendix A: Interface (Ports & Jacks)

## Overview






The following chapter will give a quick description of the interface (ports & jacks) which allow your computer to communicate with external devices, connect to the internet etc.

# Notebook Ports and Jacks


Item	Description
Card Reader Port  MMC / SD / MS	The card reader allows you to use some of the latest digital storage cards. Push the card into the slot and it will appear as a removable device.
DC-In Jack 	Plug the supplied AC/DC adapter into this jack to power your computer.
External Monitor (VGA) Port 	This port allows you to connect an external monitor, or Flat Panel Display, to get dual video or simultaneous display on the LCD and external monitor/FPD.
Headphone-Out Jack 	Headphones or speakers may be connected through this jack. <b>Note:</b> Set your system's volume to a reduced level before connecting to this jack.
Microphone-In Jack 	Plug an external microphone in to this jack to record on your computer.

A

## Interface (Ports & Jacks)

Item	Description
Mini-IEEE 1394 Port 	This port allows a high-speed connection to various peripheral devices, e.g. external disk drives and digital cameras ( <b>see note below</b> ).  <div style="border: 2px solid red; border-radius: 15px; padding: 10px; text-align: center;">   <b>Mini-IEEE 1394 Port</b>              The Mini-IEEE 1394 port only supports <b>SELF POWERED</b> IEEE 1394 devices.           </div>
RJ-11 Modem Jack 	This port connects to the built-in modem. You may plug the telephone line directly into this RJ-11 telephone connection. <b>Note:</b> Broadband (e.g. ADSL) modems usually connect to the LAN port.
RJ-45 LAN Jack 	This port supports LAN (Network) functions. <b>Note:</b> Broadband (e.g. ADSL) modems usually connect to the LAN port.
Security Lock Slot 	To prevent possible theft, a Kensington-type lock can be attached to this slot. Locks can be purchased at any computer store.
S/PDIF-Out Jack SPDIF	This S/PDIF (Sony/Philips Digital Interface Format) Out Jack allows you to connect your DVD-capable PC to a Dolby AC-3 compatible receiver for "5.1" or 'dts' surround sound.

## Interface (Ports & Jacks)

Item	Description
<p data-bbox="167 227 363 247">USB 2.0/1.1 Ports</p> 	<p data-bbox="432 227 1465 396">These USB 2.0 compatible ports (USB 2.0 is fully USB 1.1 compliant) are for low-speed peripherals such as keyboards, mice or scanners, and for high-speed peripherals such as external HDDs, digital video cameras or high-speed scanners etc. Devices can be plugged into the computer, and unplugged from the computer, without the need to turn the system off (if the power rating of your USB device is 500mA or above, make sure you use the power supply which comes with the device).</p>

# Appendix B: Intel Video Driver Controls

The basic settings for configuring the LCD are outlined in “*Video Features*” on *page 1 - 16*.

## Intel Video Driver Installation

Make sure you install all the drivers in the order indicated in *Table 4 - 1, on page 4 - 3*.

### Video

1. Insert the *Device Drivers & Utilities + User’s Manual CD-ROM (Win Vista)* into the CD/DVD drive.
2. Click **Install Vista Drivers**.
  1. Click **1.Install Video Driver > Yes**.
  2. Click **Next > Yes > Next > Next**.
  3. Click **Finish** to restart the computer.

### Dynamic Video Memory Technology

Intel® DVMT automatically and dynamically allocates as much system memory (RAM) as needed to the video system (**the video driver must be installed**). DVMT returns whatever memory is no longer needed to the operating system. **To adjust the total video memory used by the computer** (Pre-Allocated + Fixed + DVMT) see “*Total Graphics Memory: (Advanced Menu)*” on *page 5 - 9*.




#### DVMT Notes

DVMT is not local video memory.

DVMT will not function in MS-DOS. DOS uses the legacy memory indicated.



### Taskbar Icon

The **Intel GMA** control panel can also be accessed by clicking the icon  in the taskbar and selecting **Graphics Properties** from the menu.

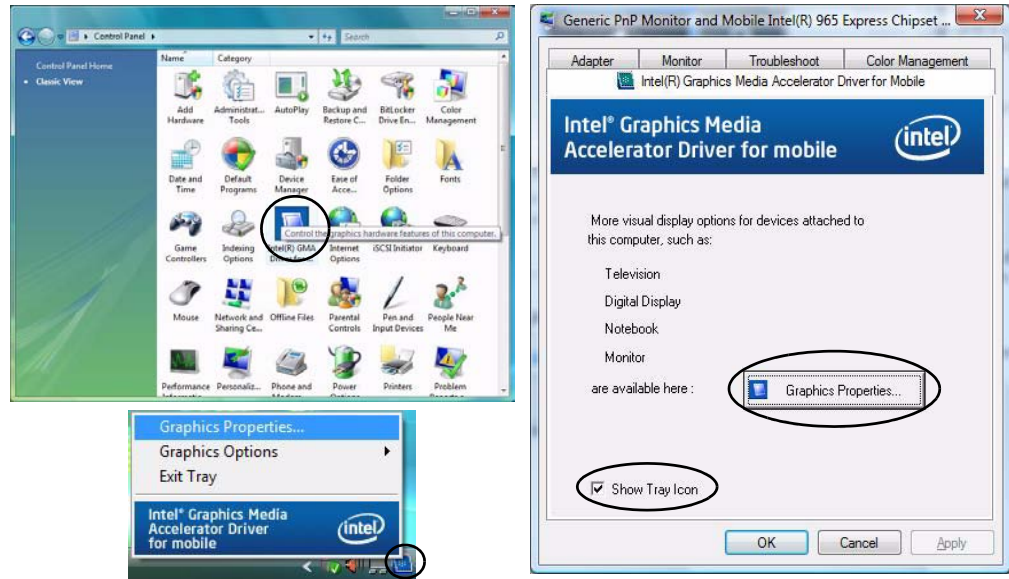
If you cannot see the tray icon click the **“Show Tray Icon”** tickbox in the **Intel(R) Graphics Media Accelerator for Mobile** tab.

*Figure B - 1*  
**Intel Graphics Properties**

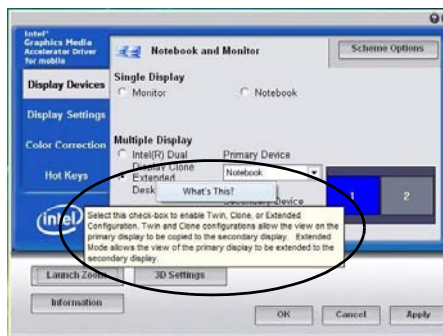
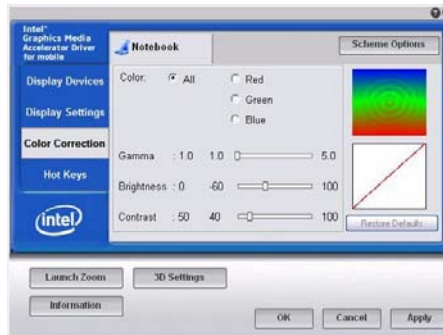
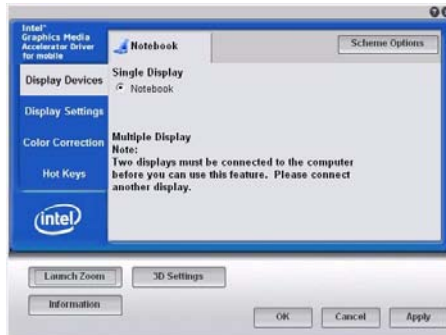
## Intel Graphics Properties

More advanced video configuration options are provided by the **Intel(R) Graphics Media Accelerator Driver for Mobile**.

1. Open the **Display Settings** control panel (see **“Video Features” on page 1 - 16**) and click **Advanced Settings** (button).
2. Click the **Intel(R)...** tab and click **Graphics Properties** (button).



You may make changes to the devices, color, schemes, **Hot Keys** etc. by clicking the appropriate menu item or button. Click **Information** (button) to obtain useful information about the graphics properties of the computer, and see the **Support** tab in **Information** to get weblinks to the latest information on the Intel Website.



## Help Menus

Right-click on many of the items in the tabs to bring up the "What's This?" button.

Click the "What's This?" button to bring up the help menu.

## Multiple Display

At least one other display must be attached in order to view **Multiple Display** options.

Figure B - 2

Intel Graphics Media Accelerator Driver for mobile (Control Panel Tabs)

B




### Application.exe

You will need to locate the actual **application executable (.exe) file**, not just the shortcut. To find the application right-click its **shortcut** on the desktop click **Properties**. Click the **Shortcut** (tab) and see where the executable file is located by clicking the **Find Target** (button). Note the location and you will then be able to browse to this file.

## Scheme Options

Use Scheme Options to configure quick settings for applications which require specific resolution and color settings in order to run properly e.g. games, multimedia programs. To set the scheme options:

1. Open the **Display Settings** control panel and click **Advanced Settings** (button).
2. Click the **Intel(R)...** tab and click **Graphics Properties** (button).
3. Configure your display configuration, resolution etc. as per your requirements from **Display Settings**.
4. Click on **Scheme Options** (button).
5. Type a name for the scheme then click **Save**.
6. If you want to automatically launch an application when running the scheme click on **Browse** (button).
7. **Browse** to the executable file for the application you want to set the scheme for (see sidebar), and click **Open** to select it.
8. Click **Save (Save > OK)** to save the settings (you can click in the "**Restore the display settings after exiting this application**" box to return to your original settings when you exit the program).
9. Click **OK** to exit the window.
10. You can run the scheme by clicking the taskbar icon  and selecting the scheme from **Select Scheme**.



*Figure B - 3*  
**Select Scheme**



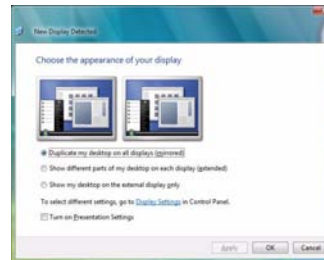
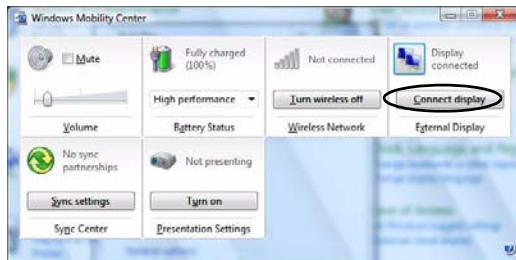
## Attaching Other Displays

Besides the built-in LCD, you can also use an external monitor/flat panel display, connected to the external monitor port at the rear of the computer, as your display device. The following are the display options:

1. The built-in LCD **OR** an external monitor/flat panel display connected to the external monitor port (**Single Display**).
2. The built-in LCD **AND** an external monitor/flat panel display connected to the external monitor port (**Multiple Display**).

### Configuring from Windows Vista

1. Attach your external display to the external monitor port, and turn it on.
2. If a **New Display Detected** window does not appear in **Windows Vista**, go to the **Windows Mobility Center** control panel (**Mobile PC > Adjust commonly used mobility settings**) and click **Connect display**.
3. Click on any of the buttons to configure the displays to your preference, or click **Display Settings** to access the control panel.



### Function Key Combination

You can use the **Fn + F7** key combination to toggle through the display options:

- Notebook Only
- External Display Only
- Notebook + External Display

Make sure you give the displays enough time to refresh.

## Intel Video Driver Controls



### Multiple Display

At least one other display must be attached in order to view **Multiple Display** options.

### Configuring from Intel® GMA Driver for Mobile

1. Go to the **Intel Graphics Properties** control panel (see *“Intel Graphics Properties” on page B - 2*) and click **Display Devices**.
2. Click to choose the display option from the **Multiple Display** menu.
3. Click **Apply** (and **OK** to confirm the settings change) and **OK** (button).

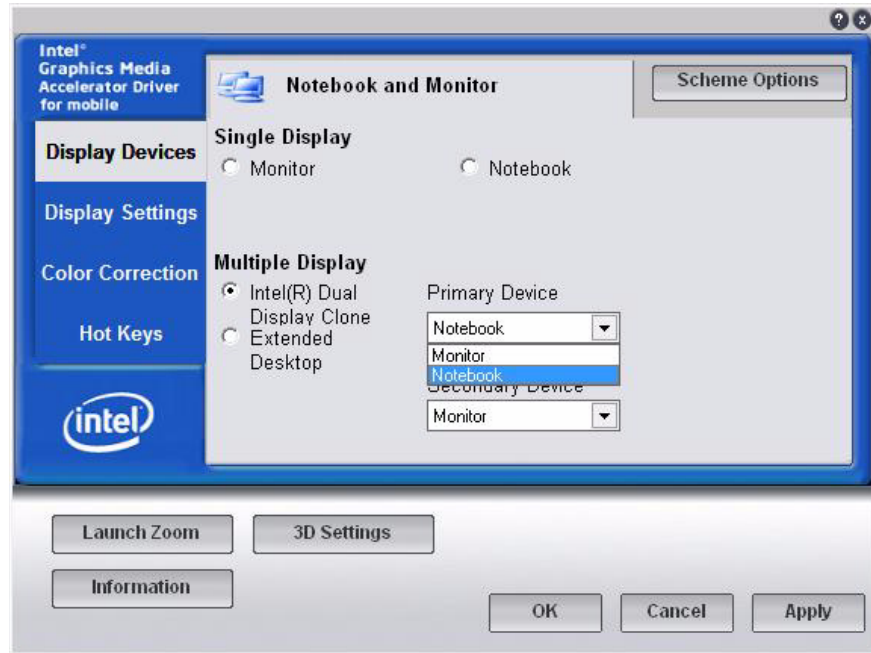


Figure B - 4  
Display Devices

# Display Modes

## Single Display

Only one of your attached displays is used.

## Intel(R) Dual Display Clone (mirrored)

This mode will drive multiple displays with the same content. Each device may be configured independently for different resolutions, refresh rates, color quality etc. Use this feature to display the screen through a projector for a presentation.

## Extended Desktop (extended)

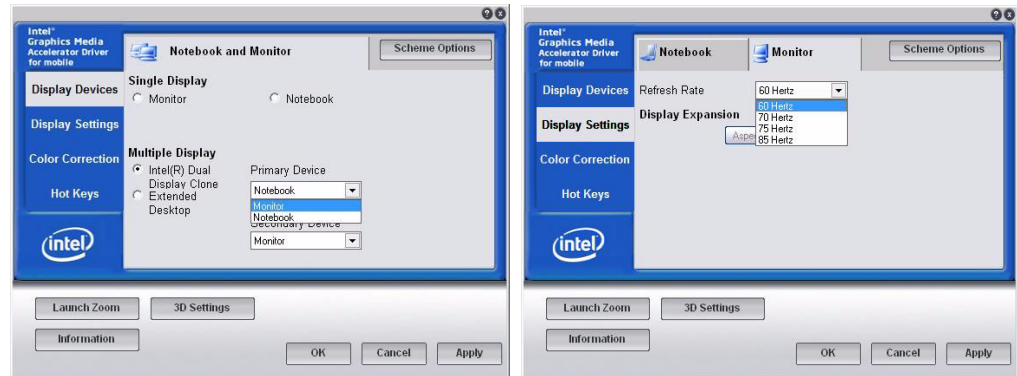
This mode allows a desktop to span multiple displays and acts as a large workspace. This creates a lot more screen area for display. Use the **Display Properties** control panel to drag the monitors to match the physical arrangement you wish to use, or you may also use the **Extended Desktop Settings** control panel tab in **Graphics Properties** to configure the relative size and position.

## Intel Video Driver Controls

### To Enable Intel(R) Dual Display Clone

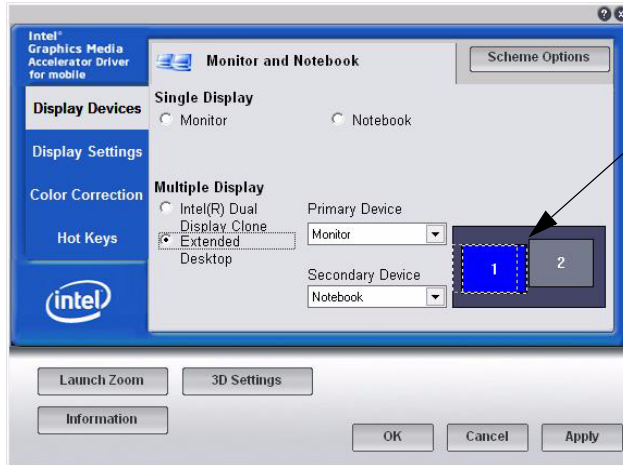
1. Attach your external monitor to the external monitor port, and turn it on.
2. Go to the **Intel Graphics Properties** control panel (see *“Intel Graphics Properties” on page B - 2*) and click **Display Devices**.
3. Click to choose **Intel(R) Dual Display Clone (Multiple Display)**.
4. Click **Apply**, and **OK** to confirm the settings change.
5. Click **Display Settings** to adjust the settings for the attached devices.

*Figure B - 5*  
**Display Devices &  
Settings**



## To Enable Extended Desktop

1. Attach your external monitor to the external monitor port, and turn it on.
2. Go to the **Intel Graphics Properties** control panel (see *“Intel Graphics Properties” on page B - 2*) and click **Display Devices**.
3. Click to choose **Extended Desktop (Multiple Display)**.
4. Click **Apply**, and **OK** to confirm the settings change.
5. Click **Display Settings** to adjust the settings for the attached devices.



Click the appropriate monitor icon and drag it to match the physical arrangement you wish to use (e.g. the secondary display may be extended left/right/above/below the primary display).

Click **Display Settings** to make any adjustments required.



### Display Settings Extended Desktop

You can have different Colors, Screen Area and Monitor Refresh Rates for each display device **provided your monitor can support them**.

You can drag the monitor icons to match the physical layout of your displays. Icons and programs may also be dragged between the displays.

*Figure B - 6*  
**Extended Desktop  
Mode**

## Intel Video Driver Controls



### Display Settings Extended Desktop

Use the control panel to drag the monitors to match the physical arrangement you wish to use.

You can drag any icons or windows across to either display desktop, which makes it possible to have one program visible in one of the displays, and a different program visible in the other display.

### Using Windows Vista to Enable Extended Mode

1. Attach your external display to the external monitor port, and turn it on.
2. If a **New Display Detected** window does not appear in *Windows Vista*, go to the **Windows Mobility Center** control panel (**Mobile PC > Adjust commonly used mobility settings**) and click **Connect display**.
3. Click to select **Show different parts of my desktop on each display (extended)**.
4. Click **Right** or **Left** under **Extend your desktop**.
5. Click **Apply > OK**.

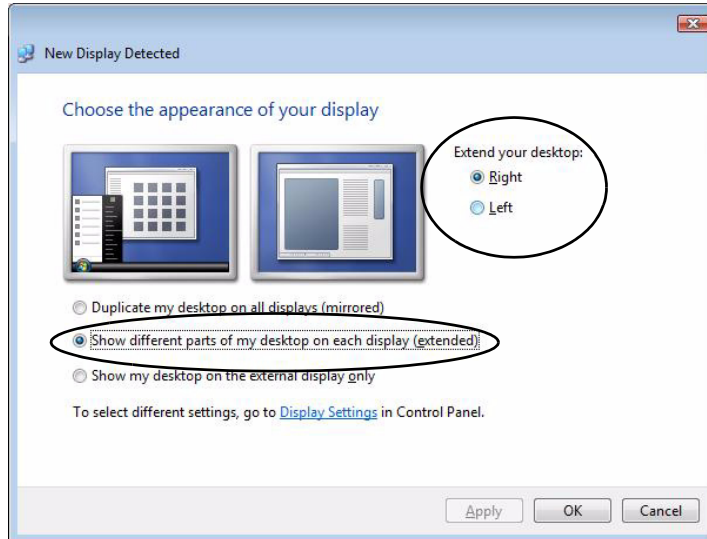


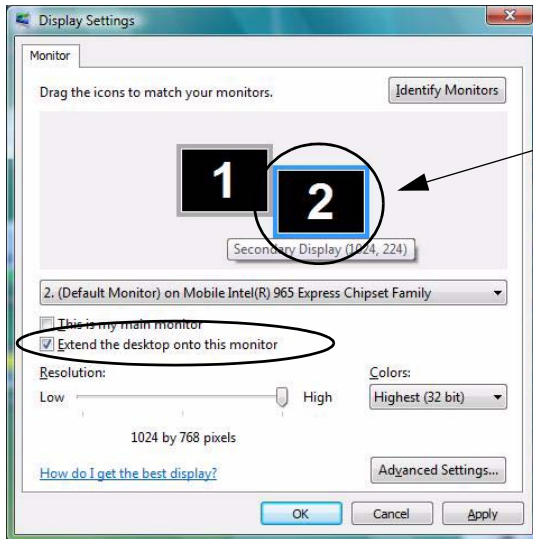
Figure B - 7

### Display Properties (Extended Desktop)

B

## Using Display Settings to Enable Extended Mode

1. Attach your external display to the external monitor port, and turn it on.
2. Open the **Display Settings** control panel (see [“Video Features” on page 1 - 16](#)).
3. Click the monitor icon (e.g. **2**), and make sure you have checked **“Extend my Windows desktop onto this monitor.”** and click **Apply**.



Click the appropriate monitor icon (e.g. **2**) to be able to select the option to extend the desktop on to it.

In this example the Primary Display **1** is on the left, the Secondary Display **2** is on the right.

*Figure B - 8*  
**Display Properties**  
**(Extended Desktop)**





# Appendix C: Specifications



## Latest Specification Information

The specifications listed in this Appendix are correct at the time of going to press. Certain items (particularly processor types/speeds and CD/DVD device types) may be changed, delayed or updated due to the manufacturer's release schedule. Check with your service center for details.

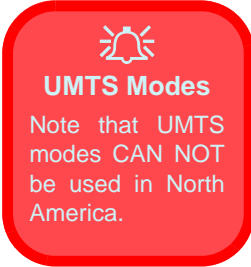
## Specifications

Feature	Specification	
<b>Processor</b>	Intel® Core™2 Duo Processor (478-pin) Micro-FC-PGA Package - Socket-P <b>T7100</b>	65nm (65 Nanometer) Process Technology 2MB On-die L2 Cache & 800MHz FSB 1.8 GHz
	Intel® Core™2 Duo Processor (478-pin) Micro-FC-PGA Package - Socket-P <b>T7300/ T7500/ T7700</b>	65nm (65 Nanometer) Process Technology 4MB On-die L2 Cache & 800MHz FSB 2.0/ 2.2/ 2.4 GHz
<b>Core Logic</b>	Intel GM965+ICH8M Chipset	
<b>LCD</b>	12.1" WXGA (1280 * 800) Glare / Non Glare TFT LCD	
<b>Memory</b>	Dual Channel 64-bit Wide DDRII (DDR2) Two 200 Pin SO-DIMM Sockets Supporting <b>DDRII (DDR2) 533MHz - 512MB RAM Modules OR 667MHz - 512MB/1024MB RAM Modules</b> Memory Expandable up to 2GB (512/1024 MB <b>DDRII</b> Modules)	
<b>Video Adapter</b>	<b>Intel GM965 Integrated Video</b> High Preference 3D/2D Graphic Accelerator Supports Dynamic Video Memory Technology DVMT (up to <b>256MB</b> dynamically allocated from system memory where needed) Supports DirectX 9 3D Graphics Engine Accelerator	
<b>Security</b>	Security (Kensington® Type) Lock Slot Fingerprint ID Reader Module ( <b>Factory Option</b> )	BIOS Password Trusted Platform Module V1.2 ( <b>Factory Option</b> )
<b>BIOS</b>	One 8Mb SPI Flash ROM	Phoenix™ BIOS

## C - 2 Specifications

Feature	Specification	
<b>Storage</b>	One Changeable 12.7mm(h) Optical Device (CD/DVD) Type Drive (see <i>“Optional” on page C - 5</i> ) Easy Changeable 2.5" 9.5 mm (h) <b>SATA</b> (Serial) HDD	
<b>Audio</b>	High Definition Audio (HDA) Compliant with Microsoft UAA (Universal Audio Architecture) Direct Sound 3D™ Compatible EAX™ 1.0 & 2.0 Compatible	A3D™ Compatible S/PDIF Digital Output 2 * Built-In Speakers Built-In Microphone
<b>Keyboard &amp; Pointing Device</b>	Winkey Keyboard	Built-In TouchPad with Scrolling Function
<b>Interface</b>	Three USB 2.0 Ports One Headphone-Out Jack One Microphone-In Jack One S/PDIF Out Jack One Internal Microphone	One RJ-11 Modem Jack One RJ-45 LAN Jack One DC-In Jack One External Monitor Port One IEEE1394 Port
<b>Card Reader</b>	Embedded 7-in-1 Card Reader (MS/ MS Pro/ SD/ Mini SD/ MMC/ RS MMC/ MS Duo) <b>Note:</b> MS Duo/ Mini SD/ RS MMC Cards require a PC adapter	
<b>ExpressCard Slot</b>	One ExpressCard/34(54) Slot	

## Specifications


Feature	Specification												
<b>Communication</b> *Note: The <b>Bluetooth</b> and <b>3.5G Optional Modules</b> cannot coexist. If one of these factory options is included in your purchase option, then the other is <b>unavailable</b> .	10M/100Mb Base-T Ethernet LAN 56K MDC Modem V.90 & V.92 Compliant 802.11 a/b/g <b>OR</b> 802.11 a/g/n USB Wireless LAN Module ( <b>Option</b> ) 1.3M or 2.0M Pixel USB PC Camera Module ( <b>Factory Option</b> )  <b><u>Bluetooth OR 3.5G Module Options:</u></b> *Bluetooth 2.0 + EDR (Enhanced Data Rate) Module ( <b>Factory Option</b> ) <b>OR</b> *UMTS/HSPDA-based 3.5G Module with Mini Card Interface ( <b>Factory Option</b> ) Quad-band GSM/GPRS (850 MHz, 900 MHz, 1800 MHz, 1900 MHz) UMTS WCDMA FDD (2100 MHz)												
	 <p><b>UMTS Modes</b> Note that UMTS modes <b>CAN NOT</b> be used in North America.</p>												
<b>Power Management</b>	Supports ACPI 3.0  Supports Wake on LAN Supports Wake on USB Supports Resume from Modem Ring												
<b>Power</b>	Full Range AC/DC Adapter AC input 100 - 240V, 50 - 60Hz, DC Output 19V, 3.42A ( <b>65 Watts</b> )												
<b>Battery</b>	4 Cell Smart Lithium-Ion Battery Pack, 14.8V/2.4AH 8 Cell Smart Lithium-Ion Battery Pack, 14.8V/4.4AH ( <b>Option</b> ) RTC Battery												
<b>Environmental Spec</b>	<table border="0"> <tr> <td>Temperature</td> <td></td> <td>Relative Humidity</td> <td></td> </tr> <tr> <td>  Operating:</td> <td>5°C ~ 35°C</td> <td>  Operating:</td> <td>20% ~ 80%</td> </tr> <tr> <td>  Non-Operating:</td> <td>-20°C ~ 60°C</td> <td>  Non-Operating:</td> <td>10% ~ 90%</td> </tr> </table>	Temperature		Relative Humidity		Operating:	5°C ~ 35°C	Operating:	20% ~ 80%	Non-Operating:	-20°C ~ 60°C	Non-Operating:	10% ~ 90%
Temperature		Relative Humidity											
Operating:	5°C ~ 35°C	Operating:	20% ~ 80%										
Non-Operating:	-20°C ~ 60°C	Non-Operating:	10% ~ 90%										



### C - 4 Specifications

## Specifications

Feature	Specification	
<b>Dimensions &amp; Weight</b>	299mm (w) * 219mm (d) * 26.5-35.7mm (h)	1.88 kg With 4 Cell Battery and ODD
<b>Optional</b> *Note: The <b>Bluetooth</b> and <b>3.5G Optional Modules</b> cannot coexist. If one of these factory options is included in your purchase option, then the other is <b>unavailable</b> .	<b>Optical Drive Module Options:</b> DVD/CD-RW Combo Drive Module DVD Dual Drive Module Super Multi Drive Module  USB Floppy Disk Drive  802.11a/b/g USB Wireless LAN Module 802.11a/g/n USB Wireless LAN Module  8 Cell Smart Lithium-Ion Battery Pack  Trusted Platform Module V1.2 ( <b>Factory Option</b> )  1.3M or 2.0M Pixel USB PC Camera Module ( <b>Factory Option</b> )  Fingerprint ID Reader Module ( <b>Factory Option</b> )	*Bluetooth 2.0 + EDR (Enhanced Data Rate) Module ( <b>Factory Option</b> ) <b>OR</b> *UMTS/HSPDA-based 3.5G Module with Mini Card Interface ( <b>Factory Option</b> ) Quad-band GSM/GPRS (850 MHz, 900 MHz, 1800 MHz, 1900 MHz) UMTS WCDMA FDD (2100 MHz)



**UMTS Modes**

Note that UMTS modes CAN NOT be used in North America.

## Specifications

C

# Appendix D: Windows XP Information

This Appendix contains information (including control panel information, driver installation etc.) for users of the *Windows XP OS*.

# DVD Regional Codes



## Changing DVD Regional Codes

Go to the **Control Panel** and double-click **System > Hardware** (tab), click **Device Manager**, then click the **+** next to **DVD/CD-ROM drives**. Double-click on the DVD-ROM device to bring up the **Properties** dialogue box, and select the **DVD Region** (tab) to bring up the control panel to allow you to adjust the regional code.

DVD region detection is device dependent, not OS-dependent. You can select your module's region code **5** times. The fifth selection is permanent. This cannot be altered even if you change your operating system or you use the module in another computer.

Region	Geographical Location
1	USA, Canada
2	Western Europe, Japan, South Africa, Middle East & Egypt
3	South-East Asia, Taiwan, South Korea, The Philippines, Indonesia, Hong Kong
4	South & Central America, Mexico, Australia, New Zealand
5	N Korea, Russia, Eastern Europe, India & Most of Africa
6	China

Table D - 1 - DVD Region Codes

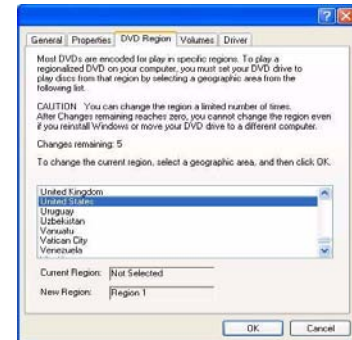


Figure D - 1 - DVD Regions



## Windows XP Start Menu & Control Panel

Most of the control panels, utilities and programs within *Windows XP* (and most other *Windows* versions) are accessed from the **Start** menu. When you install programs and utilities they will be installed on your hard disk drive, and a shortcut will usually be placed in the **Start** menu and/or the desktop. You can customize the look of the **Start** menu by right-clicking the **Start** menu and selecting **Properties** from the menu.




Figure D - 2 - Start Menu & Control Panel

In many instances throughout this manual you will see an instruction to open the **Control Panel**. The **Control Panel** is accessed from the **Start** menu, and it allows you to configure the settings for most of the key features in *Windows* (e.g. power, video, network, audio etc.). *Windows XP* provides basic controls for many of the features, however many new controls are added (or existing ones are enhanced) when you install the drivers. To see all controls it may be necessary to toggle off Category View.

# TouchPad and Buttons/Mouse

The TouchPad is an alternative to the mouse; however, you can also add a mouse to your computer through one of the USB ports. The TouchPad buttons function in much the same way as a two-button mouse.

Once you have installed the TouchPad driver (see *“TouchPad” on page D - 31*) you can configure the functions by double-clicking the TouchPad driver icon  on the **taskbar**. You may then configure the TouchPad tapping, buttons, scrolling, pointer motion and sensitivity options to your preferences. You will find further information at [www.synaptics.com](http://www.synaptics.com).



### Mouse Driver

If you are using an external mouse your operating system may be able to auto-configure your mouse during its installation or only enable its basic functions. Be sure to check the device's user documentation for details.

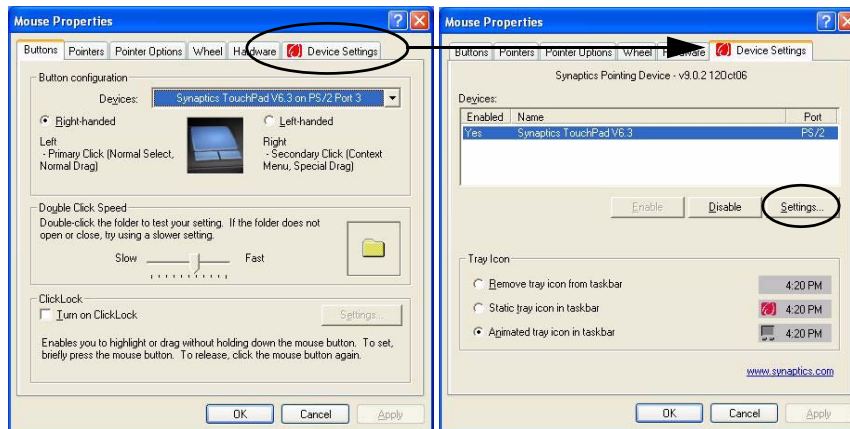



Figure D - 3 - Mouse Properties

# Function Keys

The **function keys** (F1 - F12 etc.) will act as **hot keys** when pressed while the **Fn** key is held down. In addition to the basic function key combinations; visual indicators are available when the hot key utility is installed (see *“Hot Key” on page D - 31*). When the driver is installed, an icon  will appear in the taskbar.




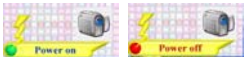
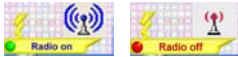








Keys	Function	Keys	Function
Fn + ~	Play/Pause (in Audio/Video Programs)	Fn + F7	Display Toggle
Fn + 	3.5G Module Power Toggle	Fn + F8/F9	Brightness Decrease/Increase 
Fn + F1	TouchPad Toggle 	Fn + F10	PC Camera Power Toggle 
Fn + F2	Turn LCD Backlight Off (Press a key to or use TouchPad to turn on)	Fn + F11	WLAN Module Power Toggle 
Fn + F3	Mute Toggle 	Fn + F12	Bluetooth Module Power Toggle 
Fn + F4	Sleep Toggle		*Silent Mode Toggle 
Fn + F5/F6	Volume Decrease/Increase 	*When enabled, <b>Silent Mode</b> will reduce fan noise and save power consumption. Note this may reduce computer performance.	

Table D - 2 - Hot Key Functions & Indicators


# Audio Features

You can configure the audio options on your computer from the **Sounds and Audio Devices**  *Windows* control panel, or from the **Realtek HD Audio Manager**  icon in the taskbar/control panel (this will bring up the Realtek Audio Configuration menus). The volume may also be adjusted by means of the **Fn + F5/F6** key combination.



### Sound Volume Adjustment

How high the sound volume can be set depends on the setting of the volume control within *Windows* (and the volume control function keys on the computer). Click the Volume icon on the taskbar to check the setting.



The image shows a Windows XP volume control slider. It has a vertical track with a slider knob in the middle. Below the track is a 'Mute' checkbox which is currently unchecked. The slider is set to approximately 50% volume.




Figure D - 4 - Realtek Audio Configuration Menus

## Video Features

Your computer has built-in **Intel (Intel GM965)** video. You can switch display devices, and configure display options, from the **Display Properties** control panel in *Windows* as long as the appropriate **video driver** is installed.

To access Display Properties in *Windows*:

1. Click **Start**, point to **Settings** and click **Control Panel** (or just click **Control Panel**).
2. Double-click **Display** (icon) - In the **Appearances and Themes** category.
3. Click **Settings** (tab) in the **Display Properties** dialog box.
4. Move the slider to the preferred setting in **Screen resolution** ❶ (*Figure D - 5 on page D - 8*).
5. Click the arrow, and scroll to the preferred setting in **Color quality** ❷ (*Figure D - 5 on page D - 8*).
6. You can also access **Display Properties** by right-clicking the desktop and scrolling down and clicking **Properties**. Click **Settings** (tab) and adjust as above.
7. Open the **Display Properties** control panel, and click **Advanced** (button) ❸ (*Figure D - 5 on page D - 8*) to bring up the Advanced properties tabs.
8. Click the **Intel(R) Graphics Media Accelerator Driver for Mobile** tab, and click **Graphics Properties** (button) to make any video adjustments you require.
9. You can also access **Graphics Properties** from the *Windows Intel(R) GMA Driver for Mobile* control panel, or from the taskbar icon .

### Dynamic Video Memory Technology

Intel<sup>®</sup> DVMT automatically and dynamically allocates as much (up to **256MB**) system memory (RAM) as needed to the video system (**the video driver must be installed**). DVMT returns whatever memory is no longer needed to the operating system.

## Windows XP Information

### Display & Graphics Properties



#### Taskbar Icon

You can also access the controller properties from the taskbar. Click on the icon to bring up the menu and scroll to **Graphics Properties**.

If you cannot see the tray icon go to the **Intel(R) Graphics Media Accelerator Driver for Mobile** tab and click the **"Show Tray Icon"** tickbox. Alternatively right-click the desktop and select **Graphics Options > Tray Icon > Enable**.

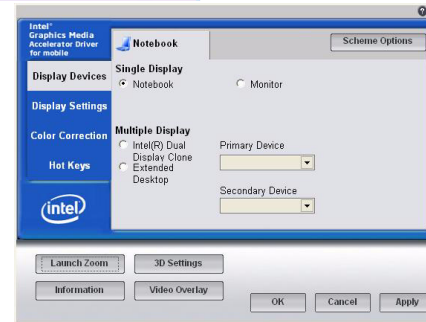
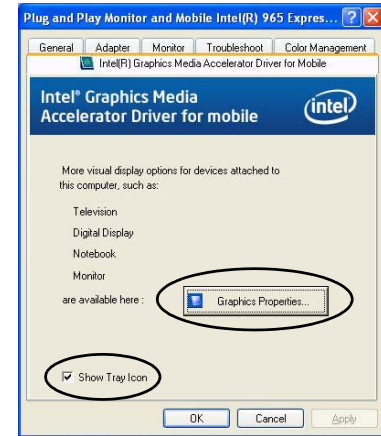
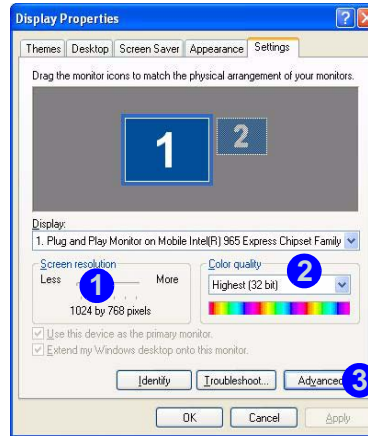


Figure D - 5 - Display & Graphics Properties

You may make changes to the devices, color, schemes, **Hot Keys** etc. by clicking the appropriate menu item or button. Click **Information** (button) to obtain useful information about the graphics properties of the computer, and see the **Support** tab in **Information** to get weblinks to the latest information on the Intel Website.

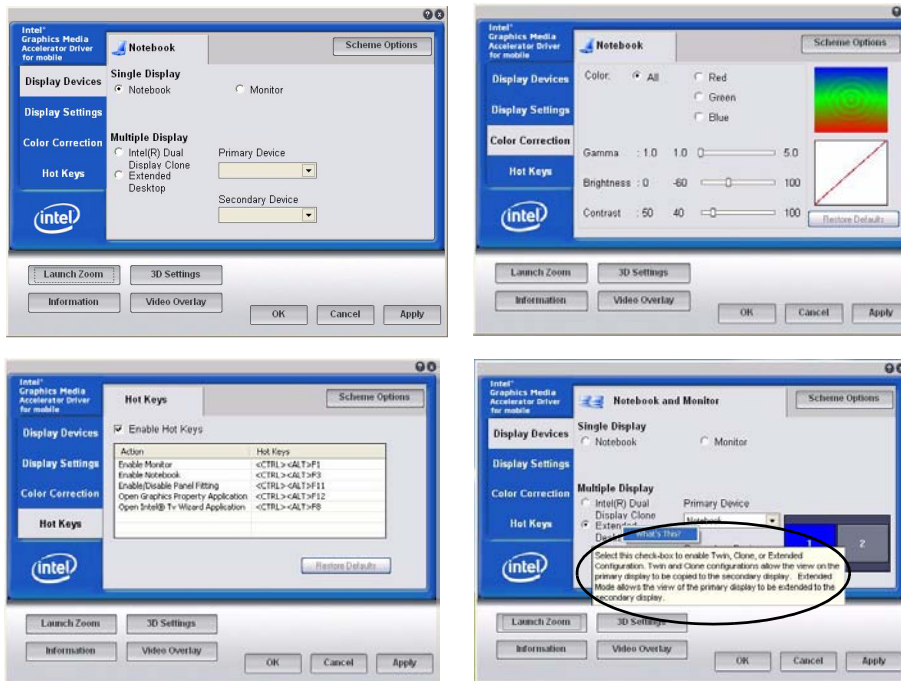


Figure D - 6 - Intel GMA Driver for Mobile



### Function Key Combination

You can use the **Fn + F7** key combination to toggle through the display options:

- Notebook Only
- External Display Only
- Notebook + External Display

Make sure you give the displays enough time to refresh.

### Intel Display Note

Note that the notebook is the default Primary display device and may not be changed.

### Display Devices & Options

Besides the built-in LCD, you can also use an **external VGA monitor** (CRT) or **external Flat Panel Display** as your display device. A VGA monitor/Flat Panel Display connects to the external monitor port. The following display modes are available.

Intel Display Mode	Description
Single Display	One of the connected displays is used as the display device
Multiple Display - Intel(R) Dual Display Clone	Both connected displays output the same view and may be configured independently
Multiple Display - Extended Desktop	Both connected displays are treated as separate devices, and act as a virtual desktop

*Figure D - 7 - Display Options*



#### Switching Modes When Using the Power DVD Application

Switch display modes **before playing** any DVD in the **Power DVD Application** it is not be possible to switch display modes while a DVD is playing (you will be required to stop the DVD playing, switch display modes, then start the DVD playing again).



## Attaching Other Displays

If you prefer to use a monitor or flat panel display, connect it to the external monitor port at the rear of the computer.

1. Attach your external display to the external monitor port, and turn it on.
2. Go to the **Intel GMA Graphics Properties** control panel and click **Display Devices**.
3. Click to choose the display option from the **Multiple/Single Display** menu.
4. Click **Apply**, and **OK** to confirm the settings change.

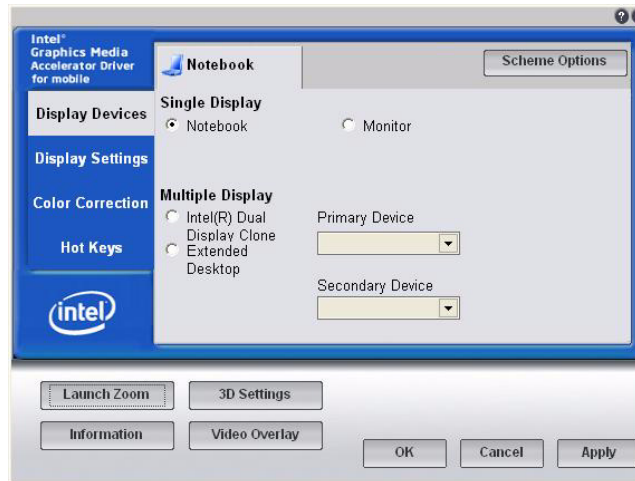


Figure D - 8 - Display Devices

## Windows XP Information

### To Enable Intel(R) Dual Display Clone (Intel GMA)

1. Attach your external display to the external monitor port, and turn it on.
2. Go to the **Intel GMA Graphics Properties** control panel and click **Display Devices**.
3. Click to choose **Intel(R) Dual Display Clone (Multiple Display)**.
4. Click **Apply**, and **OK** to confirm the settings change.
5. Click **Display Settings** to adjust the settings for the attached devices.

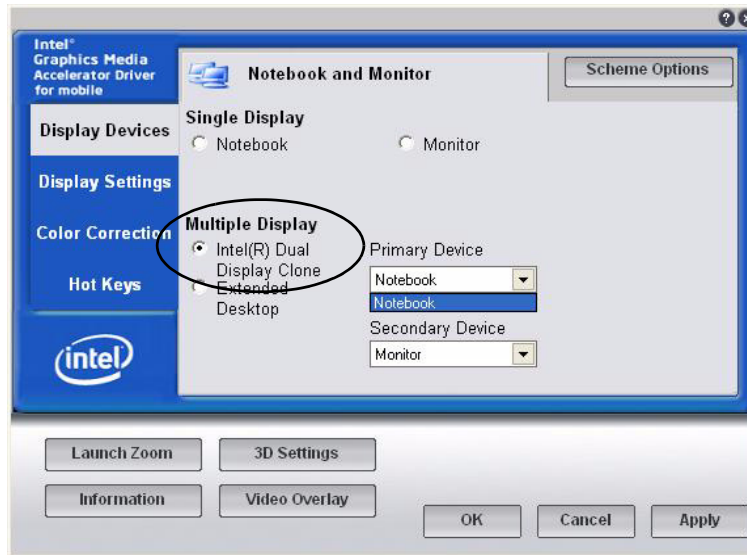


Figure D - 9 - Display Devices - Intel(R) Dual Display Clone

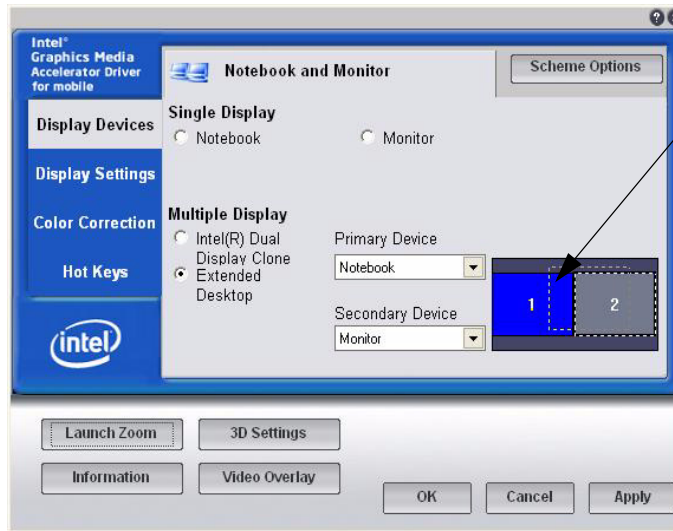
## To Enable Extended Desktop (Intel GMA)

1. Attach your external display to the external monitor port, and turn it on.
2. Go to the **Intel GMA Graphics Properties** control panel and click **Display Devices**.
3. Click to choose **Extended Desktop (Multiple Display)**.
4. Click **Apply**, and **OK** to confirm the settings change.
5. Click **Display Settings** to adjust the settings for the attached devices.

### Display Settings Extended Desktop

You can have different Colors, Screen Area and Monitor Refresh Rates for each display device **provided your monitor can support them**.

You can drag the monitor icons to match the physical layout of your displays. Icons and programs may also be dragged between the displays.



Click the appropriate monitor icon and drag it to match the physical arrangement you wish to use (e.g. the secondary display may be extended left/right/above/below the primary display).

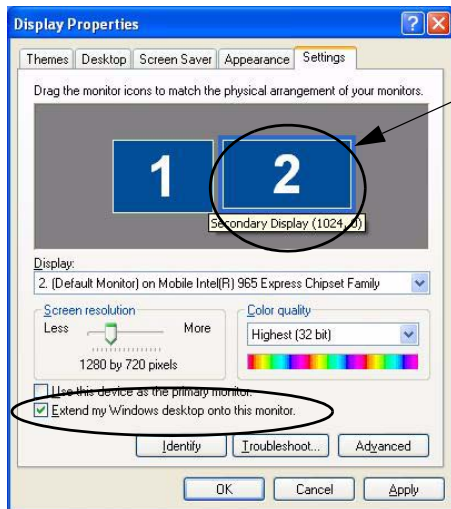
Click Display Settings to make any adjustments required.

Figure D - 10 - Display Devices - Extended Desktop

## Windows XP Information

### To Enable Extended Desktop (Windows Display Properties)

1. Attach your external monitor to the external monitor port, and turn it on.
2. Click **Start**, point to **Settings** (or click **Control Panel**) and click **Control Panel** (if you are in **Category View** choose **Appearance and Themes**).
3. Double-click **Display** (icon).
4. In the **Display Properties** dialog box, click **Settings** (tab).
5. Click the monitor icon (e.g. **2**), and make sure you have checked “**Extend my Windows desktop onto this monitor.**” and click **Apply**.



Click the appropriate monitor icon (e.g. **2**) to be able to select the option to extend the desktop on to it.

In this example the Primary monitor **1** is on the left, the secondary display **2** is on the right.

### Display Settings Extended Desktop

Use the control panel to drag the monitors to match the physical arrangement you wish to use.

You can drag any icons or windows across to either display desktop, which makes it possible to have one program visible in one of the displays, and a different program visible in the other display.

Figure D - 11 - Display Properties (Extended Desktop)

## Power Management Features

To conserve power, especially when using the battery, your computer uses the ACPI power management system. Power management conserves power by controlling individual components of the computer (the monitor and hard disk drive) or the whole system.

The **Power Options** control panel icon in *Windows* (see page [D - 3](#)) allows you to configure power management features for your computer. You may conserve power through individual components such as the monitor or hard disk, or you may use either **Stand by** or **Hibernate** mode to conserve power throughout the system.

### Advanced Configuration and Power Interface

The **ACPI** interface provides the computer with enhanced power saving techniques and gives the operating system (OS) direct control over the power and thermal states of devices and processors. For example, it enables the OS to set devices into low-power states based on user settings and information from applications. ACPI is fully supported in *Windows XP*.



#### OS Note

Power management functions will vary slightly depending on your operating system. For more information it is best to refer to the user's manual of your operating system.

(**Note:** All pictures used on the following pages are from the *Windows XP* OS.)

# The Power Sources

The computer can be powered by either an AC/DC adapter or a battery pack.

## AC/DC Adapter

Use only the AC/DC adapter that comes with your computer. The wrong type of AC/DC adapter will damage the computer and its components.

1. Attach the AC/DC adapter to the DC-in jack at the rear of the computer.
2. Plug the AC power cord into an outlet, and then connect the AC power cord to the AC/DC adapter.
3. Raise the lid/LCD to a comfortable viewing angle.
4. Press the power button to turn “On”.

## Battery

The battery allows you to use your computer while you are on the road or when an electrical outlet is unavailable. Battery life varies depending on the applications and the configuration you're using. **To increase battery life, let the battery discharge completely before recharging** (see *“How do I completely discharge the battery?” on page D - 26*).

We recommend that you do not remove the battery. For more information on the battery, please refer to *“Battery Information” on page D - 23*.

## Turning on the Computer

Now you are ready to begin using your computer. To turn it on simply press the power button on the front panel.

When the computer is on, you can use the power button as a Stand by/Hibernate/Shutdown hot-key button when it is pressed for less than **4 seconds** (pressing and holding the power button for longer than this will shut the computer down). Use **Power Options** in the *Windows* control panel to configure this feature.



### Forced Off

If the system “hangs”, and the **Ctrl + Alt + Del** key combination doesn’t work, press the power button for **4 seconds**, or longer, to force the system to turn itself off.

### Power Button as Stand by or Hibernate Button

If you are using a fully ACPI-compliant OS, (such as Windows XP) you can use the OS’s “Power Options” control panel to set the power button to send the system into Stand by or Hibernate mode (see your OS’s documentation, or [“Configuring the Power Button” on page D - 22](#) for details).



### Shutdown

Note that you should always shut your computer down by choosing the **Turn Off Computer** command from the **Start** menu in *Windows*. This will help prevent hard disk or system problems.



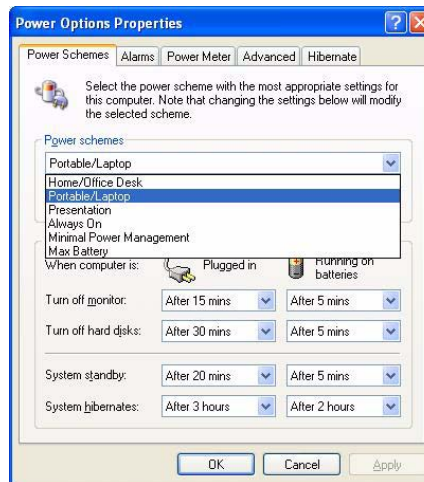
### Resuming Operation

Press a key on the keyboard, or move the mouse/TouchPad to resume from Monitor or Hard Disk Stand by.

## Power Schemes

You can set your computer to conserve power through individual components by means of **Power Schemes**. You can also adjust the settings for each scheme to set the monitor to turn off after a specified time, and the computer's hard disk motor to turn off if the hard disk drive has not been accessed for a specified period of time (if the system reads or writes data, the hard disk motor will be turned back on). The schemes may also be set to set a specified time for the system to enter **Stand by** or **Hibernate** modes (see *“System Power Options” on page D - 20*).

*Figure D - 12*  
**Power Schemes**





Each **Windows Power Scheme** will also adjust the processor performance of your machine in order to save power. This is worth bearing in mind if you are experiencing any reduced performance (especially under DC/battery power).

Choose the **Home/Office Desk** scheme for maximum performance when the computer is powered from an AC power source. Choose the **Max Battery** scheme (bear in mind that this scheme may slow down the overall performance of the computer in order to save power) for maximum power saving when the computer is battery (DC power) powered. **Windows** will use **Portable/Laptop** as the default scheme.



### Stand by/Hibernate or Shutdown Error

The computer may stop responding when you put it into (or resume from) Stand By or Hibernate, or when you shut down.

This error is caused by power management within **Windows XP**, when applied to a **PC Camera** attached to the internal USB hub.

Microsoft has posted a Hotfix for this error on its website (search for Hotfix KB909667).

Download and install the Hotfix to correct this error.

## System Power Options

You can use the system power options to stop the computer's operation and restart where you left off. This system features **Stand by** and **Hibernate** sleep mode levels (**Hibernate** mode will need to be enabled by clicking the option in the **Hibernate** tab in the **Power Options** control panel - see "*Hibernate*" on page **D - 21**).

### Hibernate Mode vs. Shutdown

Hibernate mode and Shutdown are the same in that the system is off and you need to press the power button to turn it on. Their main difference is:

When you come back from hibernation, you can return to where you last left off (what was on your desktop) without reopening the application(s) and file(s) you last used.

You can use either method depending on your needs.

### Stand by Mode vs. Hibernate Mode

If you want to stay away from your work for just a while, you can put the system on Stand by instead of in hibernation. It takes a longer time to wake up the system from **Hibernate** mode than from **Stand by** mode.

## Stand by

Stand by saves the least amount of power, but takes the shortest time to return to full operation. During Stand by the hard disk is turned off, and the CPU is made to idle at its slowest speed. All open applications are retained in memory. When you are not using your computer for a certain length of time, which you specify in the operating system, it will enter Stand by mode to save power.

## Hibernate

Hibernate uses no power and saves all of your information on a part of the HDD before it turns the system off. Although it saves the most power it takes the longest time to return to full operation. You can set your computer to automatically enter Hibernate mode when the battery power is almost depleted. You will need to enable Hibernate mode from the **Hibernate** tab in the Power Options control panel. **The system will resume from Hibernate mode by pressing the power button.**



### System Resume

The system can resume from Stand by mode by:

- Pressing the power button
- Pressing the **Sleep/Resume** key combination
- An incoming call received on the modem (if enabled)
- Network card (Wake On LAN) activity (if enabled)

*Figure D - 13*  
Enable Hibernation

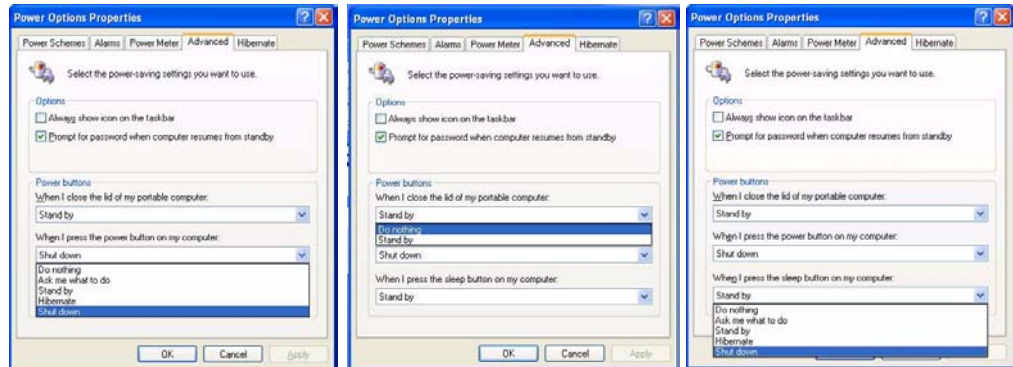


### Sleep Button

You may also configure the **Sleep/Resume** key combination (**Fn + F4**) from the menu illustrated. In **Windows** this is referred to as the **Sleep** button.

## Configuring the Power Button

The power button may be set to send the computer in to either **Stand by** or **Hibernate** mode. In **Stand by** mode, the LED  $\text{D}/\text{U}$  will blink green. In **Hibernate** mode the LED will be off (battery) or orange (AC/DC adapter). If you are in a power saving mode set to save power through individual components (e.g. hard disk, monitor), the LED will remain green.



Power Button

Lid

Sleep/Resume  
(Sleep) Button

*Figure D - 14*  
**Power Options  
(Advanced - Power  
Buttons)**