# Software Guide

## HP Compaq Notebook Series

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This guide provides settings and procedures for managing notebook power and security. It also provides instructions for obtaining system information and using setup utilities to help detect, solve, and prevent problems.

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# 1

# Setup

## Setting Up the Software

A prompt asking you to set up your software is displayed on the screen when the notebook is turned on for the first time. Before responding to the prompt and proceeding through the online instructions, read the following caution and other installation information contained in this chapter.

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**CAUTION:** To prevent file corruption and ensure that the correct device drivers are installed, follow these guidelines during software setup:

- Do not unplug the notebook from the electrical outlet.
- Do not shut down the notebook.
- Do not remove or insert a drive.

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- After you begin the software setup, you must complete the entire process without interruption. Setup time varies.
- If you are prompted to select a language, choose carefully. The languages you do not choose are deleted from the system and cannot be restored after the setup process has begun.
- If you are prompted to accept the End User License Agreement, you must choose Accept to continue the software setup.
- *Preloaded* software applications are included with the notebook but must be installed through the Software Setup utility. *Preinstalled* software applications have already been installed on the notebook and require no further installation procedures.

- This guide does not take into account any variation that might result from the notebook being connected to a network.
- This guide includes instructions based on the Microsoft® Windows® XP and Windows 2000 operating systems. Any other operating systems installed on this notebook after purchase might not match the descriptions and procedures provided in this guide.
- This guide includes instructions based on the category view that is used by default in Windows XP. If your notebook is set to classic view, you might notice discrepancies between your notebook and this documentation. For information on switching views, see Windows XP Help and Support.

# Installing Optional Software

You can install third-party software or preloaded utilities anytime after initial setup is complete.

- To install third-party software, refer to the documentation included with the software.
- To install a preloaded utility:
  - ❑ **In Windows 2000,** select Start > Programs > Software Setup.
  - ❑ **In Windows XP,** select Start > All Programs > Software Setup.

  A setup wizard loads, and a list of applications is displayed. Select the application you want to install, and follow the instructions on the screen.

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To view the descriptions and space requirements of preloaded HP utilities without installing them:

- Select Start > (All) Programs > Software Setup.

After viewing the utility information, select Cancel.

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## Selecting Regional Settings

Keyboard language and other regional preferences, such as time, date, and currency format, are set in the operating system. To access these settings:

- **In Windows 2000,** select Start > Settings > Control Panel > Date/Time, or select Start > Settings > Control Panel > Regional Options.
- **In Windows XP,** select Start > Control Panel > Date, Time, Language, and Regional Options > Date and Time, or select Start > Control Panel > Date, Time, Language, and Regional Options > Regional and Language Options.

For information about selecting regional settings, open the Regional Options window, then use context-sensitive Help. To use context-sensitive Help, select the question mark button in the upper right corner of the window, and then select an item. A definition, explanation, or procedure is displayed.

## Selecting Screen Settings

If you would like to see more items on your screen or to see the items on your screen displayed larger, change the screen resolution setting in your operating system. To access the screen resolution settings:

- **In Windows 2000,** select Start > Settings > Control Panel > Display > Settings tab.
- **In Windows XP,** select Start > Control Panel > Appearance and Themes > Display > Settings tab.

## Setting Up Wireless LAN and Bluetooth

If your notebook is equipped with optional wireless LAN (WLAN) or with a Bluetooth® device, you must configure these devices before using them.

For information on configuring and using your WLAN device, refer to the *Startup Guide* included with your notebook. The *Startup Guide* contains information to help you set up your WLAN and locate the correct documentation.

For information on configuring and using Bluetooth, refer to the *Bluetooth Documentation Library* CD included with your notebook, if applicable.

WLAN and Bluetooth options are not supported in all countries.

# Safeguarding the Notebook

## Turning Off the Notebook

Whenever possible, shut down the notebook by following the appropriate Windows shutdown procedure:

- **In Windows 2000,** select Start > Shut Down > Shut Down, then select the OK button.
- **In Windows XP,** select Start > Turn off computer > Turn off.

# Protecting the Notebook from Power Surges

To protect the notebook from the power surges that might be caused by an uncertain power supply or an electrical storm:

- Plug the notebook power cord into an optional, high-quality surge protector. Surge protectors are available from most computer or electronics retailers.
- Provide surge protection on the cable that connects a modem to the telephone line.
- Run the notebook on battery power or shut down the notebook and disconnect the power cord.

# Protecting the Notebook Against Viruses

When you use the notebook for email, network, or Internet access, you expose the notebook to computer viruses. Computer viruses can disable the operating system, your applications, or your utilities, or cause them to function abnormally.

Antivirus software can detect most viruses, destroy them, and repair damage they have caused.

# 2

# Power

## Selecting a Power Source

The notebook can run on internal power or on external power. The following table indicates the best power sources for common tasks.

| Task | Power Source |
|---|---|
| Work in most software applications | ■ Charged battery pack<br>■ External power supplied through one of the following devices:<br>❒ AC adapter<br>❒ Optional Port Replicator<br>❒ Optional Aircraft Adapter<br>❒ Optional Automobile Power Adapter/Charger |
| Charge or calibrate a battery pack in the notebook | External power supplied through:<br>■ AC adapter<br>■ Optional Automobile Power Adapter/Charger |
| Install or modify system software<br>Write to a CD | External power supplied through:<br>■ AC adapter<br>■ Optional HP Port Replicator or HP Advanced Port Replicator |

# Understanding Standby and Hibernation

Standby and Hibernation are energy-saving features that conserve power and reduce startup time. They can be initiated by you or by the system. Refer in this chapter to the "Choosing Standby, Hibernation or Shutdown" section for details about when to use each setting.

## Standby

Standby reduces power to system components that are not in use. When Standby is initiated, your work is saved in random access memory (RAM) and the screen is cleared. When you resume from Standby, your work returns to the screen where you left off.

## Hibernation

**CAUTION:** If the configuration of the notebook is changed during Hibernation, resuming from Hibernation may not be possible. When the notebook is in Hibernation:

- Do not dock the notebook in or undock the notebook from a Port Replicator or Advanced Port Replicator.
- Do not add or remove memory modules.
- Do not insert or remove the hard drive.
- Do not connect or disconnect external devices.
- Do not insert or remove a PC Card or a Secure Digital (SD®) Memory Card.

Hibernation saves your work to a hibernation file on the hard drive, then shuts down the notebook. When you resume from Hibernation, your work returns to the screen where you left off. If a power-on password has been set, the password must be entered to resume from Hibernation. You can disable Hibernation. However, if Hibernation is disabled, the system does not automatically save your work if the notebook reaches a critical low-battery condition while power is on or in Standby.

In the Power Options window, Hibernation is not displayed as an option if it has been disabled. Enable Hibernation in order to select it in the Power Options window. To verify that Hibernation is enabled:

- **In Windows 2000,** select Start > Settings > Control Panel > Power Options icon > Hibernate tab. Make sure that the Enable Hibernate Support check box is selected.
- **In Windows XP,** select Start > Control Panel > Power Options icon > Hibernate tab. If Hibernation is enabled, the Enable Hibernation check box is selected.

# Choosing Standby, Hibernation or Shutdown

The following sections describe when to initiate Standby or Hibernation and when to shut down your notebook.

## When You Leave Your Work

Initiating Standby clears the screen and uses less power than leaving the notebook on. Your work returns instantly to the screen when you resume from Standby.

Initiating Hibernation clears the screen, saves your work to the hard drive, and uses much less power than Standby.

Shutting down the notebook and removing the battery pack is recommended to extend the life of the battery pack, when the notebook will be disconnected from external power for an extended period. For details on battery pack storage, refer to the "Battery Packs" chapter in the *Hardware Guide* on this CD.

## When the Power Supply Is Uncertain

Make sure that Hibernation remains enabled, especially if you are operating the notebook on battery power and do not have access to an external power supply. If the battery pack fails, Hibernation saves your work to a hibernation file and shuts down the notebook.

It is recommended that if you pause your work when the power supply is uncertain, initiate Hibernation, shut down the notebook, or save your work and then initiate Standby.

## When Using Infrared or Drive Media

Standby and Hibernation interfere with the use of infrared communication and drive media:

- If the notebook is in Standby or Hibernation, you cannot initiate an infrared transmission.

**CAUTION:** To prevent possible video and audio degradation and loss of audio or video playback functionality, do not initiate Standby or Hibernation while using drive media.

- If Standby or Hibernation is accidentally initiated while a drive medium (such as a diskette, CD, or DVD) is in use:
  - ❏ Your playback may be interrupted.
  - ❏ You may see a warning message: “Putting the computer into Hibernation or Standby may stop the playback. Do you want to continue?” Select No.
  - ❏ Resume from Hibernation or Standby by pressing the power button.
  - ❏ Audio and video may resume or you may need to restart the drive medium.

# Using the Default Power Settings

The following tables describe the factory power settings on the notebook. You can change many of these settings according to your preference. For more information on changing the default settings, refer in this chapter to the "Setting Power Management Options" section.

## Turning the Notebook On or Off

| Task | Procedure | Result |
|---|---|---|
| Turning on the notebook | Press the power button. Pressing the power button returns the notebook to "on" from any power mode: Standby, Hibernation, or shutdown. | ■ The power light turns on.<br>■ The operating system loads. |
| Shutting down the notebook* | Save your work and close all open applications. Then:<br>■ Press the power button and follow the on-screen directions for shutting down the notebook.<br>■ Shut down the notebook through the operating system:<br>❒ **In Windows 2000,** select Start > Shut Down > What do you want the computer to do? > Shut Down, then select the OK button.<br>❒ **In Windows XP,** select Start > Turn Off computer > Turn Off. | ■ The power light turns off.<br>■ The operating system shuts down.<br>■ The notebook turns off. |

* If the system is unresponsive and you are unable to shut down the notebook with these procedures, refer in this chapter to the "Using Emergency Shutdown Procedures" section.

*(Continued)*

| Task | Procedure | Result |
|---|---|---|
| Turning off the display if the notebook is closed while the power is on | There is no action required. | Closing the notebook activates the display switch, which turns off the display. |

# Initiating or Resuming from Hibernation

| Task | Procedure | Result |
|---|---|---|
| User-initiated Hibernation | ■ **In Windows 2000,** select Start > Shut down > Hibernate, then select the OK button.<br>■ **In Windows XP,** select Start > Turn Off the Computer > Hibernate. (If the Hibernate option is not displayed, press the **shift** key.) | ■ The power light turns off.<br>■ The screen clears. |
| System-initiated Hibernation (with Hibernation enabled) | ■ If the notebook is attached to AC power, the system will not initiate Hibernation.<br>■ If the notebook is running on battery power, the system initiates Hibernation after 30 minutes of notebook inactivity.<br>■ Power settings and timeouts can be changed in the Power Options window. | ■ The power light turns off.<br>■ The screen clears. |
| Resume from user-initiated or system-initiated Hibernation | Press the power button. | ■ The power light turns on.<br>■ Your work returns to the screen. |

# Initiating or Resuming from Standby

| Task | Procedure | Result |
|---|---|---|
| User-initiated Standby | ■ With the notebook on, press **Fn+F3.**<br>■ Through the operating system:<br>❒ **In Windows 2000,** select Start > Shut Down > Standby, then select the OK button.<br>❒ **In Windows XP,** select Start > Turn Off the Computer > Standby. (If the Standby option is not displayed, press the **shift** key.) | ■ The power light blinks.<br>■ The screen clears. |
| System-initiated Standby | ■ If the notebook is attached to AC power, the system will not initiate Standby.<br>■ If the notebook is running on battery power, the system initiates Standby by default after 10 minutes of notebook inactivity.<br>■ Power settings and timeouts can be changed in the Power Options window. | ■ The power light blinks.<br>■ The screen clears. |
| Resume from user-initiated or system-initiated Standby | Press the power button. | ■ The power light turns on.<br>■ Your work returns to the screen. |

## Using Emergency Shutdown Procedures

If the notebook is unresponsive and you are unable to use normal Windows shutdown procedures, try the following emergency procedures:

- Press **ctrl+alt+delete.** Select Shutdown.
- Press and hold the power button for at least 5 seconds.
- If you are unable to shut down the notebook with the power button, disconnect the notebook from external power and remove the battery pack.

**CAUTION:** Emergency shutdown procedures result in the loss of unsaved data.

# Setting Power Management Options

Many of the default power settings, such as timeouts, alarms, and power button settings, can be changed in the Power Options window. For example, you can set an audio alert to warn you when the battery pack reaches a low-power condition, or you can change the default settings for the power button.

## Accessing the Power Options Window

To access the Power Options Window:

- **In Windows 2000,** select Start > Settings > Control Panel > Power Options icon.
- **In Windows XP,** select Start > Control Panel > Power Options icon.
- **In Windows 2000 or XP,** double-click the Power Meter icon on the taskbar.

## Displaying the Power Meter Icon

The Power Meter icon is on your taskbar by default. The icon changes shape to indicate whether the notebook is running on a battery pack or external AC power. Double-click the icon to display the Power Options window.

To hide or show the Power Meter icon on the taskbar:

1. Access the Power Options window.
2. Select the Advanced tab.
3. Select or clear the Always Show Icon on the Task Bar check box.
4. Select the OK button.

If you cannot see an icon you have placed on the taskbar, the icon may be hidden. Select the arrow or vertical bar on the taskbar and expand it to view icons.

## Setting or Changing a Power Scheme

The Power Schemes tab in the Power Options window assigns power levels to system components. You can assign different schemes depending on whether the notebook is running on a battery pack or AC power.

You can also set a Power Scheme that initiates Standby or turns off the display or hard drive after a time interval (timeout) that you specify.

To set a Power Scheme, access the Power Options window > Power Schemes tab. Select options from the lists, name the new Power Scheme, and select Save As.

## Using a Security Password

You can add a security feature that prompts you for a password when the notebook turns on or resumes from Standby or Hibernation.

To set a password prompt, access the Power Options window > Advanced tab. Select the check box for Prompt For Password When the Computer Goes Off Standby, and select OK.

For more information about using security passwords, refer to "Setting Power-On Passwords."

# Processor Performance Controls (Select Models Only)

Windows 2000 and Windows XP provide different software that enables the user to control processor performance. The central processing unit (CPU) speed can be set for optimal performance or for optimal power conservation.

For example, the software can be set to trigger an automatic change in processor speed when the power source changes between AC power and battery pack power, or when the notebook use changes between active and idle.

Processor performance controls vary depending on the operating system.

## Windows 2000 Processor Controls

Windows 2000 notebooks having the Mobile Intel® Pentium® 4 Processor-M with SpeedStep technology enable the user to adjust the processor speed. Intel SpeedStep functions independently from the power management settings available through the operating system. You must install SpeedStep separately.

### Installing Intel SpeedStep

To install Intel SpeedStep technology, select Start > Software Setup. A setup wizard loads and displays a list of available applications. Select Intel SpeedStep and follow the instructions on the screen. You will be prompted to reboot.

After you install SpeedStep, a tab is added to the Power Options window, an icon is added to the taskbar, and the feature is automatically enabled on mobile processors.

The default SpeedStep settings are Maximum Performance for AC Power and Battery Optimized mode for battery power. (For details on each setting, refer to "Choosing a Performance Mode."

To access the utility after installation, select the SpeedStep icon on the taskbar or Start > Settings > Control Panel > Power Options icon > Intel SpeedStep technology tab.

The SpeedStep icon on the taskbar indicates which SpeedStep mode is active. Rest the pointer over the icon to display the current performance mode. Right-click the icon to change the performance mode.

## Choosing a Performance Mode

The SpeedStep technology offers 3 preset performance modes:

- **In Maximum Performance mode,** the processor runs at full speed to provide maximum performance.
- **In Automatic mode,** the processor speed increases while the notebook is being used and decreases when the notebook is idle.
- **In Battery Optimized mode,** the processor runs at a reduced speed to provide an optimal balance between energy conservation and performance.

The notebook can run in any of the performance modes while it is operating on AC power or on battery power.

## Setting SpeedStep Preferences

SpeedStep settings can be accessed from the SpeedStep window or the SpeedStep icon. SpeedStep can be enabled or disabled in Computer Setup.

If the SpeedStep window and icon are not accessible, they can be enabled in Computer Setup. To enable the window and icon (and other settings in the SpeedStep window), refer to "Enabling SpeedStep in Computer Setup."

## Using the SpeedStep Window

To open the SpeedStep window select Start > Settings > Control Panel > Power Management icon > Intel SpeedStep technology tab. Then set your preferences according to the following table.

| Preference | Procedure |
|---|---|
| Assign a performance mode that applies when the notebook is running on battery power. | Select a performance mode from the Running on Batteries list, then select OK. |
| Assign a performance mode that applies when the notebook is running on AC power. | Select a performance mode from the Plugged In list, then select OK. |
| Set the notebook to remain in the same performance mode even if the power source changes. | Select the same performance mode from the Running on Batteries and Plugged In lists, then select OK. |
| Remove the SpeedStep icon from the taskbar. | 1. Select the check box for Remove Icon from Taskbar.<br>2. Select OK in the Advanced window.<br>3. Select OK or Apply in the main SpeedStep window. |

## Enabling SpeedStep in Computer Setup

Computer Setup, a non-Windows utility, includes settings to enable or disable SpeedStep. For more information about Computer Setup, refer to Chapter 7, "Computer Setup" in this guide.

Access the SpeedStep settings in Computer Setup.

1. To open Computer Setup, turn on or restart the notebook. Press **F10** while the F10 = ROM Based Setup message is displayed in the lower left of the screen.
   - ❏ To change the language, press **F2.**
   - ❏ For navigation instructions, press **F1.**

2. Use the arrow keys to select Advanced > Device Options. Under Intel SpeedStep Technology:
   - ❏ Select Automatic to enable all SpeedStep settings in the SpeedStep window.
   - ❏ Select Disable to set the notebook to run in Battery Optimized mode and disable all SpeedStep settings in the SpeedStep window.
3. To save your preferences, use the arrow keys to select File > Save Changes and Exit, then follow the instructions on the screen.

   Your preferences are set as you exit Computer Setup and are in effect when the notebook restarts.

# Windows XP Processor Controls

In Windows XP, processor performance controls are included with the operating system and managed in the Power Options window.

## Accessing XP Processor Controls

To access Windows XP processor performance controls, select Start > Control Panel > Performance and Maintenance > Power Options > Power Schemes tab.

You can set the desired Power Scheme that sets the processor controls. Each Power Scheme for AC power or battery power equates to one of the following processor levels:

- Constant: Always runs at the lowest performance state.
- Adaptive: Performance state is selected based on CPU demand.
- Degrade: Starts at lowest performance state, then uses linear performance reduction (stop clock throttling) as the battery discharges.
- None: Always runs at the highest performance state.

When you choose a Power Scheme, you are setting the AC power and battery power modes shown in the following table. No other user intervention is required to control the performance of your notebook processor.

| Power Scheme | Processor Performance while on External Power | Processor Performance while on Battery Power |
|---|---|---|
| Home/Office Desk | Always runs at the highest performance state. | Performance state is determined based on CPU demand. |
| Portable/Laptop | Performance state is determined based on CPU demand. | Performance state is determined based on CPU demand. |
| Presentation | Performance state is determined based on CPU demand. | Starts at lowest performance state, then uses linear performance reduction (stop-clock throttling) as the battery discharges. |
| Always On | Always runs at the highest performance state. | Always runs at the highest performance state. |
| Minimal Power Management | Performance state is determined based on CPU demand. | Performance state is determined based on CPU demand. |

# 3

# Security

## Security Features Quick Reference

The purpose of security solutions is to act as a deterrent. These solutions do not prevent the product from being mishandled or stolen.

In addition to the Windows operating system security measures, the notebook provides the following security features, most of which can be configured in Computer Setup. For more information, refer to Chapter 7, "Computer Setup" in this guide.

| To Protect Against | Use This Security Feature |
|---|---|
| Unauthorized use of the notebook | Power-on password |
| Unauthorized access to the Computer Setup utility (**F10**) | HP Administrator password |
| Unauthorized access to the contents of a hard drive | DriveLock |

*(Continued)*

| To Protect Against | Use This Security Feature |
|---|---|
| Unauthorized access to a Windows user account | Optional Smart Cards<br>An enabled Smart Card can store the Windows User and Windows Administrator passwords; therefore, both the password and the Smart Card are required to access the account.<br>✎ This feature is supported on only certain Smart Card Readers. For more information on Smart Cards, refer to "Using the Smart Card Reader." |
| Unauthorized access of data | Embedded Security Chip<br>✎ This feature is available on only select notebook models. For more information, refer to the *HP ProtectTools Embedded Security Getting Started* guide, included with notebooks containing this chip. |
| Unauthorized access to the processor serial number and other system identification information | HP Administrator password, which protects the system information in Computer Setup |
| Unauthorized removal of the notebook | Security cable slot (used with an optional cable lock)<br>For more information on the security cable slot, refer to the "External Devices" chapter in the *Hardware Guide* on the *Documentation Library* CD. |

# Setting Security Preferences in Computer Setup

Most security preferences are set in Computer Setup. Because Computer Setup is a non-Windows utility, it does not support the pointing devices on your notebook. When using Computer Setup, you must use the keys on your notebook to navigate and make selections.

Refer to Chapter 7, “Computer Setup” in this guide for details.

# Using Passwords

Most security features use passwords. Whenever you set a password, write down the password and store it in a secure location away from the notebook.

- If you forget your power-on or HP Administrator password, you cannot start up the notebook or resume from Hibernation until an authorized service provider resets the notebook. Refer to the *Worldwide Telephone Numbers* booklet included with the notebook to contact an HP Customer Care Center.
- If you forget the DriveLock user password but know your DriveLock master password, you can remove DriveLock protection from the drive. For instructions, refer to “Understanding DriveLock.”

**CAUTION:** If you forget both your DriveLock user and DriveLock master passwords, the hard drive is permanently locked and can no longer be used.

# Understanding HP and Windows Passwords

HP security features and Windows operating system security features work independently from one another. For example, a device disabled in Computer Setup cannot be enabled in Windows.

HP passwords and Windows passwords are also independent of one another. The following table lists the different passwords used by HP and Windows and describes their functions.

| HP passwords* | Function |
|---|---|
| HP Administrator password | Used to access Computer Setup. |
| Power-on password | Used to access the notebook during Startup. |
| DriveLock user password | Used by the day-to-day user to access drives protected by DriveLock at startup. |
| DriveLock master password | Used by the HP administrator to access drives protected by DriveLock and to remove DriveLock protection from the drive. |
| Smart Card password | Stores the Windows Administrator and User passwords and is used to access Windows during startup on notebooks.<br>Power-on and HP Administrator passwords can be stored on Smart Cards if the Smart Card Reader supports this functionality. |

*HP Passwords must be enabled in Computer Setup. For more information, refer to Chapter 7, “Computer Setup” in this guide.

*(Continued)*

| Windows passwords | |
|---|---|
| Administrator password | Used to log on to the notebook as the Windows Administrator after Windows has been configured to prompt for a password at startup. |
| User password | Used to log on to the notebook as a user after Windows has been configured to prompt for a password at startup. |

## HP and Windows Password Guidelines

HP and Windows passwords are not interchangeable. You must use an HP password at an HP password prompt and a Windows password at a Windows password prompt. For example:

- If a power-on password is set, the power-on password (not a Windows password) must be entered when the notebook starts up or resumes from Hibernation.
- If you set Windows to prompt for a password before resuming from Standby, a Windows password (not a power-on password) must be entered to resume from Standby.

The same word or series of letters, numbers, or slashes used for an HP password can be used for another HP password or for a Windows password, with these considerations:

- HP passwords can be any combination of up to 32 letters and numbers and are not case-sensitive.
- An HP password must be set and entered with the same type of keys. For example, an HP password set with keyboard number keys will not be recognized if it is entered with embedded numeric keypad number keys. (For information about the embedded numeric keypad, refer to the "Pointing Devices and Keyboard" chapter in the *Hardware Guide* on the *Documentation Library* CD.)

# Understanding Power-On Passwords

A power-on password prevents unauthorized use of the notebook. Once set, a power-on password must be entered each time the notebook is turned on or restarted. A power-on password:

- Does not display as it is set, entered, changed, or deleted.
- Must be set and entered with the same keys. For example, a power-on password set with keyboard number keys will not be recognized if you enter it with keypad number keys.
- Can include any combination of up to 32 letters and numbers and is not case-sensitive.

## Setting Power-On Passwords

A power-on password is set, changed, or deleted in Computer Setup. To manage the password:

1. Open Computer Setup by turning on or restarting the notebook. Press **F10** while the F10 = ROM Based Setup message is displayed in the lower left of the screen.
   - ❏ To change the language, press **F2.**
   - ❏ For navigation instructions, press **F1.**

2. Use the arrow keys to select Security > Power-On password, then press **enter.** Then:

   - ❏ To set a power-on password, type the password in the New Password field, then in the Verify New Password field, then press **F10.**
   - ❏ To change a power-on password, type the current password in the Old Password field, type the new password in the New Password and Verify New Password fields, then press **F10.**
   - ❏ To delete a power-on password, type the current password in the Old Password field, then press **F10.**

3. To save your preferences, use the arrow keys to select File > Save Changes and Exit, then follow the instructions on the screen.

Your preferences are set when you exit Computer Setup and take effect when the notebook restarts.

## Entering Power-On Passwords

At the power-on password prompt, type your password, then press **enter.** After 3 unsuccessful attempts to enter the password, you must restart the notebook and try again.

# Understanding HP Administrator Passwords

The HP Administrator password protects the configuration settings and system identification information in Computer Setup. After it is set, this password must be entered to access Computer Setup. The HP Administrator password:

- Is not interchangeable with a Windows Administrator password, although both can use the same word or series of letters, numbers, or slashes.
- Does not display as it is set, entered, changed, or deleted.
- Must be set and entered with the same keys. For example, an HP Administrator password set with keyboard number keys will not be recognized if you enter it with embedded numeric keypad number keys.
- Can include any combination of up to 32 letters and numbers and is not case-sensitive.

## Setting HP Administrator Passwords

An HP Administrator password is set, changed, or deleted in Computer Setup. To manage the password:

1. Open Computer Setup by turning on or restarting the notebook. Press **F10** while the F10 = ROM Based Setup message is displayed in the lower left of the screen.
   - ❏ To change the language, press **F2.**
   - ❏ For navigation instructions, press **F1.**
2. Use the arrow keys to select the Security menu > Administrator Password, then press **enter.** Then:
   - ❏ To set an HP Administrator password, type your password in the New Password and Verify New Password fields, then press **F10.**
   - ❏ To change an HP Administrator password, type your current password in the Old Password field, type the new password in the New Password and Verify New Password fields, then press **F10.**
   - ❏ To delete an HP Administrator password, type your current password in the Old Password field, then press **F10.**
3. To save your preferences and exit Computer Setup, use the arrow keys to select File > Save Changes and Exit, then follow the instructions on the screen.

   Your preferences are set when you exit Computer Setup and take effect when the notebook restarts.

## Entering HP Administrator Passwords

At the Computer Setup prompt, type your Administrator Password (using the same type of keys you used to set the password), then press **enter.** After 3 unsuccessful attempts to enter the HP Administrator password, you must restart the notebook and try again.

# Understanding DriveLock

**CAUTION:** If you forget the DriveLock user and DriveLock master passwords, the hard drive is permanently unusable.

DriveLock prevents unauthorized access to the contents of a hard drive. After DriveLock protection is applied to a drive, a password must be entered to access the drive. The drive must be inserted into the notebook, not an optional Port Replicator or External MultiBay, in order for it to be accessed by the DriveLock passwords.

DriveLock involves a user password and a master password:

- A hard drive protected by DriveLock can be accessed with either the user or the master password.
- You can delete a user password or master password only by removing DriveLock protection from the drive. DriveLock protection can be removed from the drive only with the master password.
- The owner of the user password should be the day-to-day user of the protected hard drive. The owner of the master password may be a system administrator or the day-to-day user.
- A user password and a master password can be the same word.

When you start the notebook from a hard drive protected with DriveLock, and your power-on and DriveLock passwords are identical, you will be prompted to enter only a power-on password instead of both a power-on and a DriveLock password.

# Setting DriveLock Passwords

**CAUTION:** If you forget the DriveLock user and the DriveLock master passwords, the hard drive is permanently unusable.

**CAUTION:** To prevent loss of work and damage to the notebook and the hard drive, shut down the notebook before inserting or removing a primary hard drive. (The primary hard drive is any hard drive used in the hard drive bay.)

To access the DriveLock settings in Computer Setup, you must shut down, then turn on the notebook. If you open Computer Setup from a Windows restart, DriveLock settings are not accessible.

1. Save your work, exit all applications, and shut down the notebook. If you are not sure whether the notebook is off or in Hibernation, briefly press the power button. If your work returns to the screen, save your work, exit all applications, and then shut down the notebook.
2. Insert the hard drive into the notebook (not an optional Port Replicator or External MultiBay).
3. Open Computer Setup by turning on (not restarting) the notebook. Press **F10** while the F10 = ROM Based Setup message is displayed in the lower left of the screen.
   - ❏ To change the language, press **F2.**
   - ❏ For navigation instructions, press **F1.**
4. Use the arrow keys to select the Security menu > DriveLock passwords, then press **enter**.
5. Select the location of the hard drive, then press **F10.**
6. Toggle the Protection field to Enable.
7. Read the warning. To continue, press **F10**.
8. Type your user password in the New Password and Verify New Password fields, then press **F10.**

9. Type your master password in the New Password and Verify New Password fields, then press **F10.**
10. To confirm DriveLock protection on the drive you have selected, type DriveLock in the confirmation field, then press **F10.**
11. To save your DriveLock settings, select File > Save Changes and Exit, then follow the instructions on the screen.

    Your preferences are set when you exit Computer Setup and take effect when the notebook restarts.

## Entering DriveLock Passwords

1. Be sure that the drive is inserted into the notebook (not an optional Port Replicator or External MultiBay).
2. When prompted for a DriveLock password, type your user or master password (using the same type of keys you used to set the password), then press **enter.**
3. After 2 attempts to enter the password incorrectly, you must restart the notebook and try again.

## Changing DriveLock Passwords

**CAUTION:** To prevent loss of work and damage to the notebook and the hard drive, shut down the notebook before inserting or removing a primary hard drive. (The primary hard drive is any hard drive used in the hard drive bay.)

To access the DriveLock settings in Computer Setup, you must shut down, then turn on the notebook. If you open Computer Setup from a Windows restart, DriveLock settings are not accessible.

1. Save your work, exit all applications, and shut down the notebook. If you are not sure whether the notebook is off or in Hibernation, briefly press the power button. If your work returns to the screen, save your work, exit all applications, and then shut down the notebook.
2. Be sure that the hard drive is inserted into the notebook (not an optional Port Replicator or External MultiBay).
3. Open Computer Setup by turning on (not restarting) the notebook. Press **F10** while the F10 = ROM Based Setup message is displayed in the lower left of the screen.
   - ❏ To change the language, press **F2.**
   - ❏ For navigation instructions, press **F1.**
4. Use the arrow keys to select the Security Menu > DriveLock passwords, then press **enter.**
5. Use the arrow keys to select the location of the hard drive, then press **F10.**
6. Use the arrow keys to select the field for the password you want to change, type your current password in the Old Password field, type the new password in the New Password and Verify New Password fields, then press **F10.**
7. To save your preferences, use arrow keys to select File > Save Changes and Exit, then follow the instructions on the screen.

   Your preferences are set when you exit Computer Setup and take effect when the notebook restarts.

# Removing DriveLock Protection

To access the DriveLock settings in Computer Setup, you must shut down, then turn on the notebook. If you open Computer Setup from a Windows restart, DriveLock settings are not accessible.

1. Save your work, exit all applications, and shut down the notebook. If you are not sure whether the notebook is off or in Hibernation, briefly press the power button. If your work returns to the screen, save your work, exit all applications, and then shut down the notebook.
2. Be sure that the hard drive is inserted into the notebook (not an optional Port Replicator or External MultiBay).
3. Open Computer Setup by turning on (not restarting) the notebook. Press **F10** while the F10 = ROM Based Setup message is displayed in the lower left of the screen.
   - ❏ To change the language, press **F2.**
   - ❏ For navigation instructions, press **F1.**
4. Use the arrow keys to select the Security Menu > DriveLock passwords, then press **enter.**
5. Use the arrow keys to select the location of the hard drive, then press **F10.**
6. Toggle the Protection field to Disable, then press **F10.**
7. Type your master password in the Old Password field, then press **F10.**
8. To save your preferences, use arrow keys to select File > Save Changes and Exit, then follow the instructions on the screen.

   Your preferences are set when you exit Computer Setup and take effect when the notebook restarts.

## Disabling a Device

From the Computer Setup Device Security menu, you can disable or partially disable most ports and drives.

1. Open Computer Setup by turning on or restarting the notebook. Press **F10** while the F10 = ROM Based Setup message is displayed in the lower left of the screen.
   - ❏ To change the language, press **F2.**
   - ❏ For navigation instructions, press **F1.**
2. Select the Security menu > Device Security, then enter your preferences.
3. To confirm your preferences, press **F10.**
4. To save your preferences, select File > Save Changes and Exit, then follow the instructions on the screen.

Your preferences are set when you exit Computer Setup and take effect when the notebook restarts.

# Using HP ProtectTools Embedded Security Manager

HP ProtectTools Embedded Security Manager is the interface that allows you to configure settings for the optional Embedded Security Chip that is available on select notebooks. HP ProtectTools Embedded Security Manager is not provided in all languages.

In order to use HP ProtectTools Embedded Security Manager, the Embedded Security Chip must first be enabled and the appropriate software and drivers must be installed. For information on installing software and drivers, enabling the Embedded Security Chip, and using Embedded Security, refer to the *HP ProtectTools Embedded Security Getting Started* guide, included with notebooks containing the Embedded Security Chip. (This guide is not provided in all languages.)

# Using System Information

System information provides details about your notebook and battery pack. The following sections explain how to prevent other users from viewing system information and how to configure system information options in Computer Setup.

System Information options allow you to:

- Display or enter the notebook serial number, asset tag, and ownership tag.
- Display a battery pack serial number.

To prevent unauthorized access to this information, you must create an HP Administrator password. For instructions, see "Setting HP Administrator Passwords," earlier in this chapter.

## Setting System Information Options

1. To open Computer Setup, turn on or restart the notebook. Press **F10** while the F10 = ROM Based Setup message is displayed in the lower left of the screen.
   - ❏ To change the language, press **F2.**
   - ❏ For navigation instructions, press **F1.**
2. Access or set your preferences by following these directions:
   - ❏ To view general system information, select the File menu > System Information.
   - ❏ To view or enter identification values for system components, select the Security menu > System IDs.
3. To confirm the information or your preferences, press **F10.**
4. To save your information or preferences, use the arrow keys to select File > Save Changes and Exit, then follow the instructions on the screen.

   Your preferences are set when you exit Computer Setup and take effect when the notebook restarts.

# Using the Smart Card Reader

Select notebooks models are equipped with an embedded Smart Card Reader. On these models, the driver for your Smart Card Reader is preinstalled. No action is necessary to install the driver.

The Smart Card Reader is used with industry-standard Smart Cards designed to work with Windows 2000 and Windows XP Professional operating systems.

Smart Cards are available from a variety of manufacturers and service providers. Smart Cards can provide functions such as protecting a Windows user account and securing online transactions. Card capabilities depend on the Smart Card itself as well as the Smart Card application being used.

In addition, you can use a personal digital certificate with the Smart Card Reader. To do so, ensure that the personal digital certificate and software you purchase are compliant with the Microsoft PC/SC Smart Card standard.

## Safeguarding your Smart Card Reader

The HP ProtectTools Smart Card Manager utility can be used with selected notebooks to provide a way to safeguard your Smart Card Reader. This utility allows you to restrict unauthorized access to your Smart Card and Smart Card Reader. To download this utility and find out more about ProtectTools, visit the HP Web site at http://www.hp.com/products/security.

For instructions on using HP ProtectTools Smart Card Manager, refer to the Help menu in the utility. This utility and Web site are available in English only.

# 4

# Optical Drive Software

## Using CDs and DVDs

This chapter provides guidelines for playing CDs and DVDs using software that has been preloaded, preinstalled, or provided on an installation CD for select notebooks. This software supports optical drives in an optional External MultiBay and an optional Advanced Port Replicator with built-in MultiBay.

## Protecting Playback

**CAUTION:** Do not insert or remove a device while running multimedia applications, because the application might pause or stop playing.

**CAUTION:** To prevent possible video and audio degradation and loss of audio or video playback functionality, do not initiate Standby or Hibernation while using drive media.

If Hibernation or Standby is accidentally initiated while an audio or video disc is in use:

- Your playback might be interrupted.
- You might see a warning message: "Putting the computer into Hibernation or Standby may stop the playback. Do you want to continue?" Select No.

Resume from Hibernation or Standby by pressing the power button. Audio and video might resume automatically or you might need to restart the media.

- If your system includes an optional Advanced Port Replicator, dock or undock the notebook *before or after* playing a disc (not *while* playing a disc).
- For best playback quality, save all files and close all open applications before playing a disc.
- If a DVD displays a "Playback Of Content From This Region Is Not Permitted" error message, change the region setting as described in the next section, then restart the DVD.

After you insert a disc, a short pause is normal before Autorun opens the disc and the associated player application.

## Protecting the CD and DVD Write Process

To prevent loss of work and damage to an optical disc:

- Before writing to a disc, connect the notebook to a reliable external power source. Do not write to a disc while the notebook is running on battery power.
- Before writing to a disc, close all open applications (including screen savers and antivirus software) except the CD or DVD software you are using.
- Do not copy directly from a source disc to destination disc or from a network drive to a destination disc. Instead, copy from a source disc or network drive to your hard drive, then copy from your hard drive to the destination disc.
- Do not use the notebook keyboard or move the notebook while the notebook is writing to a disc. The write process is sensitive to vibration.

## Observing the Copyright Warning

It is a criminal offense, under applicable copyright laws, to make unauthorized copies of copyright-protected material, including computer programs, films, broadcasts, and sound recordings. This notebook should not be used for such purposes.

# Using CD and DVD Software

## Selecting Software

The following software is supported for use with the notebook:

- Windows Media Player—Plays audio CDs and DVDs and copies audio and data CDs. This software is included with the Windows operating system.
- Roxio Easy CD & DVD Creator—Enables you to create or copy optical drive media. Before you can create CDs, you must install this application using the installation CD provided with your notebook.
- InterVideo WinDVD—Plays video CDs and DVD movies. This software is preinstalled on select notebooks. You can also obtain this software by any of the following methods:
  - ❏ Install WinDVD from the *Driver Recovery* CD provided with most HP notebooks.
  - ❏ If you do not have the *Driver Recovery* CD, see the *Worldwide Telephone Numbers* booklet included with your notebook to contact an HP Customer Care Center for a copy of the Restore solution for your notebook.
  - ❏ Download the software from the HP Web site: http://www.hp.com.
- InterVideo WinDVD Creator—Provides the ability to create, edit, and burn movies to a DVD or video CD. This software is located on the *InterVideo WinDVD Creator* CD, included with select notebooks.

Some CDs and DVDs contain player software such as PCFriendly. If you insert a disc that contains player software provided by a company other than HP, you are prompted to install that player software. If you prefer to install player software supported by HP, decline the installation and close the installation window.

# Installing Software

To install software included with the notebook from a CD, follow these steps:

1. Insert an appropriate optical drive into an External MultiBay connected to the notebook as described in the "External Devices" chapter of the *Hardware Guide* on the *Documentation Library* CD.
2. Connect the notebook to a reliable electrical outlet.
3. Close any open applications.
4. Insert a software CD into the optical drive.
   - ❏ If Autorun is enabled, an Installation Wizard is displayed.
   - ❏ If Autorun is disabled, select Start > Run. Enter:

     x:\setup.exe

     (where x is your CD drive designation), then select the OK button.
5. When the Installation Wizard is displayed, follow the installation instructions on the screen.
6. Restart the notebook if prompted.

Repeat the installation procedure for all software you want to install.

WinDVD Creator has special drive requirements for proper installation. To install WinDVD Creator, see the instructions provided with the *InterVideo WinDVD Creator* CD.

## Enabling AutoPlay

AutoPlay is an option in Windows that turns the Autorun feature on or off. Autorun starts a program on a CD-ROM or plays a title on a disc as soon as the disc is inserted into the drive and the drive door is closed. By default, AutoPlay is enabled on the notebook.

To disable AutoPlay or to enable AutoPlay if the feature has been turned off, see your operating system documentation or visit the Microsoft Web site at http://www.microsoft.com.

## Installing the Universal Disk Format Reader

Some CDs or DVDs created with "drag and drop" software might not initially run in the notebook you are using. The first time you insert a CD or DVD formatted for "drag and drop" software into the optical drive, you might be prompted to install the Universal Disk Format (UDF) Reader. Discs formatted for "drag and drop" software or created using "drag and drop" software contain a copy of the UDF Reader.

To install the UDF Reader:

1. Insert the CD or DVD created with the "drag and drop" software into the optical drive attached to the notebook.
2. Select Start > Run. Enter:

   x:\udfinst.exe

   (where x is the CD/DVD drive designation).
3. Select OK.
4. Follow the installation instructions on the screen.

# Playing Audio and Video CDs with Windows Media Player

The Windows Media Player application is a program included with the operating system.

## Playing a CD

To play a CD, follow these steps:

1. Insert the CD into the drive, then close the tray. Wait several seconds. Then:
   - ❏ If Autorun is enabled, Windows Media Player opens. Proceed to step 2.
   - ❏ If Windows Media Player does not open:
     - ◆ **In Windows 2000,** select Start > Programs > Accessories > Entertainment > Windows Media Player.
     - ◆ **In Windows XP,** select Start > All Programs > Windows Media Player.
2. Select the Play button to play the CD.

## Accessing Windows Media Player Help

To open Windows Media Player Help:

1. Select the Windows Media Player icon on the taskbar, or:
   - ❏ **In Windows 2000,** select Start > Programs > Accessories > Entertainment > Windows Media Player.
   - ❏ **In Windows XP,** select Start > All Programs > Windows Media Player.
2. Select Help on the Windows Media Player menu bar.

# Playing Video CDs and DVDs with Intervideo WinDVD

InterVideo WinDVD is an application that enables you to play video CDs and DVD movies. WinDVD is preloaded, but not preinstalled, on the notebook.

## Installing WinDVD

HP recommends that you install WinDVD from the Software Setup utility before inserting a DVD.

This application will not install successfully unless your notebook is equipped with an optical drive (integrated or attached through the MultiBay or an optional Advanced Port Replicator) that has DVD+R capability.

To install WinDVD, open the Software Setup utility:

- **In Windows 2000,** select Start > Programs > Software Setup.
- **In Windows XP,** select Start > All Programs > Software Setup.

A setup wizard loads, and a list of applications is displayed. Select WinDVD and follow the instructions on the screen.

Some DVDs contain third-party DVD player programs such as PCFriendly. If you insert a DVD that contains a non-HP player program *before you have installed WinDVD,* you are prompted to install the non-HP player program and not WinDVD. If you prefer to install WinDVD, decline the non-HP player installation, then close the installation window.

To open the WinDVD application if Autorun has been disabled:

- **In Windows 2000,** select Start > Programs > InterVideo WinDVD > InterVideo WinDVD.
- **In Windows XP,** select Start > All Programs > InterVideo WinDVD > InterVideo WinDVD.

For more information about using WinDVD, select Help on the WinDVD menu bar.

## Playing Video CDs and DVDs

In addition to the instructions in the WinDVD Player Help file, the following tips may be useful:

- If your system includes an optional Advanced Port Replicator, dock or undock the notebook *before* playing a DVD (not *while* playing a DVD).
- For best playback quality, save your files and close all open applications before playing a DVD.
- If the DVD displays a "Playback Of Content From This Region Is Not Permitted" error message, change the region setting as described in the next section, then restart the DVD.

After you insert a DVD, a short pause is normal before Autorun opens the DVD and WinDVD Player.

# Creating CDs with Roxio Easy CD & DVD Creator

Roxio Easy CD & DVD Creator is a data transfer utility that enables you to create or copy optical drive media. Before you can create CDs, you must install this application using the installation CD provided with your notebook.

If your optical drive has DVD+RW capability, DVDs can be used with Easy CD and DVD Creator to store large amounts of data on a disc. To build DVDs containing movies, refer to "Creating DVDs Using InterVideo WinDVD Creator."

When Easy CD & DVD Creator is installed on your notebook model, a Roxio Easy CD and DVD Creator icon is displayed at the following location:

- **In Windows 2000,** Start > Programs > Roxio Easy CD and DVD Creator.
- **In Windows XP,** Start > All Programs > Roxio Easy CD and DVD Creator.

# Easy CD & DVD Creator Features

Easy CD & DVD Creator includes the following 4 applications:

Additional applications that appear in the Roxio Easy CD & DVD Creator online User's Guide are not available on this notebook model, as purchased.

| Application | Allows you to |
|---|---|
| Disc Copier | Create backup copies of personal discs. |
| Creator Classic | Create CD backups or archives of files on your hard drive. |
| Drag-to-Disc | "Drag and drop" files to a CD or DVD and automatically record data as you would with a floppy disk. Drag-to-Disc does not copy and burn audio files. |
| Roxio Label Creator | Create personalized labels for your discs. |

These applications can be accessed through the Start menu or through the Home window. To open the Home window:

- **In Windows 2000,** select Start > Programs > Roxio Easy CD and DVD Creator > Home.
- **In Windows XP,** select Start > All Programs > Roxio Easy CD and DVD Creator > Home.

For a more information concerning Easy CD & DVD Creator applications, features, or use, refer to the Roxio Easy CD & DVD Creator online User's Guide. To access the guide:

- **In Windows 2000,** select Start > Programs > Roxio Easy CD and DVD Creator > User's Guide.
- **In Windows XP,** select Start > All Programs > Roxio Easy CD and DVD Creator > User's Guide.

# Preparing to Use Easy CD & DVD Creator

**CAUTION:** To prevent loss of work and damage to a CD or DVD:

- Before writing to a CD, connect the notebook to a reliable external power source. Do not write to a CD while the notebook is running on battery power.
- Before writing to a CD, close all open applications (including screen savers and antivirus software) except Easy CD and DVD Creator.
- Do not copy directly from a CD to another CD or from a network drive to a CD. Instead, copy from a CD or network drive to your hard drive, then copy from your hard drive to the CD.
- Do not type on the notebook keyboard or move the notebook while the notebook is writing to a CD. The write process is sensitive to vibration.

## Choosing Recording Media

HP recommends using high-quality media that correspond to the maximum speed of the optical drive. The notebook can write or copy to CDs that provide one-time, non-erasable recording (CD-R) or to CDs that provide erasable recording (CD-RW).

In order to write data to a CD, you must use a blank CD-R disc or a CD-RW disc on which the format has not been finalized. For more information about choosing media for use with Easy CD & DVD Creator, refer to the Roxio Easy CD & DVD Creator online User's Guide.

# Creating CDs

Refer to the Roxio Easy CD and DVD Creator online User's Guide for details on burning CDs.

# Erasing Recorded Media with Roxio Easy CD & DVD Creator

You cannot erase data from a CD-R or DVD+R disc. Only CD-RW or DVD+RW discs can be used in the following process.

Erasing recorded media in Drag-to-Disc or Creator Classic may take up to 45 minutes to complete.

## Erasing Recorded Media with Drag-to-Disc

To erase recorded media created with Drag-to-Disc:

1. Insert the CD into the optical drive.
2. Open the Drag-to-Disc window:
   - ❑ **In Windows 2000,** select Start > Programs > Roxio Easy CD and DVD Creator > Drag-to-Disc.
   - ❑ **In Windows XP**, select Start > All Programs > Roxio Easy CD Creator > Drag-to-Disc.
3. Open the Drag-to-Disc menu.
4. Select Erase Disc.
5. Select OK.

## Erasing Recorded Media with Creator Classic

To erase recorded media formatted with Creator Classic:

1. Insert the CD into the optical drive.
2. Open the Creator Classic window:
   - ❑ **In Windows 2000,** select Start > Programs > Roxio Easy CD and DVD Creator > Creator Classic.
   - ❑ **In Windows XP,** select Start > All Programs > Roxio Easy CD and DVD Creator > Creator Classic.
3. In the Source window, select the optical drive containing the disc you wish to erase.
4. On the Creator Classic menu bar, select Disc > Erase Disc.

# Selecting Easy CD & DVD Creator Settings

To use Drag-to-Disc, Creator Classic, or Disc Copier, the default settings shown in the following table must be selected. These settings are compatible; for example, the settings for Drag-to-Disc do not conflict with the settings for Disc Copier.

| Application | Required Settings |
|---|---|
| Drag-to-Disc | Enable Auto Insert Notification* |
| Creator Classic | Disable Disc-at-Once**<br>and<br>Enable Track-at-Once** |
| Disc Copier | Disable Disc-at-Once |

*Auto Insert Notification settings are selected through the operating system.
**Disk-at-Once and Track-at-Once are recording methods that appear in the Record Setup window after you begin burning a CD.

The following table describes the Track-at-Once and Disc-at-Once recording methods.

| Option | Description |
|---|---|
| Track-at-Once | Writes data to the disc in multiple passes and allows you to copy one track or data file at a time to the disc. Additional options allow you to choose whether the session is finalized at the end of recording. |
| Disc-at-Once | Writes all information to the disc at once and finalizes both the session and the disc at the end of recording. |

For additional information about Track-at-Once or Disc-at-Once settings, refer to the Roxio Easy CD and DVD Creator online User's Guide.

# Creating DVDs Using InterVideo WinDVD Creator

InterVideo WinDVD Creator can be used to create, edit, and burn movies to a DVD or video CD. This software must be installed from the *InterVideo WinDVD Creator* CD provided with select notebooks.

WinDVD Creator must be installed using a DVD/CD-RW or a DVD+RW/R and CD-RW combo drive only. If you do not use one of these drives, WinDVD Creator installation will not occur.

# Preparing to Use InterVideo WinDVD Creator

**CAUTION:** To prevent loss of work and damage to a DVD:

- Before writing to a DVD, connect the notebook to a reliable external power source. Do not write to a DVD while the notebook is running on battery power.
- Before writing to a DVD, close all open applications (including screen savers and antivirus software) except InterVideo WinDVD Creator.
- Do not copy directly from a DVD to another DVD or from a network drive to a DVD. Instead, copy from a DVD or network drive to your hard drive, then copy from your hard drive to the DVD.
- Do not type on the notebook keyboard or move the notebook while the notebook is writing to a DVD. The write process is sensitive to vibration.

## Choosing Recording Media

HP recommends using high-quality media that correspond to the maximum speed of the optical drive. The notebook can write or copy to DVDs that provide one-time, non-erasable recording (DVD+R) or to DVDs that provide erasable recording (DVD+RW).

In order to write data to a DVD, you must use a blank DVD+R disc or a DVD+RW disc on which the format has not been finalized. For more information about choosing media for use with WinDVD Creator, select Help on the WinDVD Creator menu bar.

## Creating DVDs

To open InterVideo WinDVD Creator:

- **In Windows 2000,** select Start > Programs > InterVideo WinDVD Creator> InterVideo WinDVD Creator.
- **In Windows XP,** select Start > All Programs > InterVideo WinDVD Creator> InterVideo WinDVD Creator.

For instructions on creating DVDs, select Help on the WinDVD Creator menu bar.

# Changing DVD Region Settings

**CAUTION:** The region setting on your DVD drive can be changed only 5 times.

- The region setting you select the fifth time becomes the permanent region setting on the DVD drive.
- The number of allowable region changes remaining on the drive is displayed in the Remaining Times Until Permanent field in the WinDVD window. The number in the field includes the fifth and permanent change.

Most DVDs that contain copyrighted files also contain region codes. The region codes help protect copyrights internationally.

You can play a DVD containing a region code only if the region code on the DVD matches the region setting on your DVD drive.

If the region code on a DVD does not match the region setting on your drive, a "Playback Of Content From This Region Is Not Permitted" message is displayed when you insert the DVD. To play the DVD, you must change the region setting on your DVD drive. DVD region settings can be changed through the operating system or through some DVD players.

## Changing Settings Using the Operating System

To change settings through the operating system:

1. Open Device Manager:
   - ❏ **In Windows 2000,** select Start > Settings > Control Panel > System icon > Hardware tab > Device Manager.
   - ❏ **In Windows XP,** select Start > My Computer. Right-click in the window and select Properties > Hardware tab > Device Manager.
2. Select DVD/CD-ROM drives, right-click the DVD drive for which you want to change region settings, then select Properties.
3. Make the desired changes on the DVD Region tab.
4. Select OK.

For additional information, refer to Windows operating system Help and Support.

## Changing Settings Using WinDVD

To change the region setting on a drive using WinDVD:

1. Open WinDVD through one of the following methods:
   - ❏ Select the WinDVD Player icon on the taskbar.
   - ❏ Select Start > (All) Programs > InterVideo WinDVD > InterVideo WinDVD.
2. Right-click the WinDVD player window.
3. Select Setup.
4. Select the button for the region.
5. Select OK.

## Changing Settings Using Other DVD Software

To change region settings on a drive using a DVD player other than WinDVD, refer to the documentation provided with the player.

# 5

# MultiBoot

Bootable media and network interface cards (NICs) contain files needed by the notebook to start up and operate properly. The MultiBoot utility, disabled by default, enables you to identify these devices and control the sequence in which the system attempts to boot the devices to start up your notebook.

Bootable devices include optical drive discs such as CDs or DVDs; bootable diskettes and SuperDisks; and network interface cards (NICs).

Some devices, including USB devices and network interface cards (NICs), must be enabled in Computer Setup before they can be included in the boot sequence. For more information, refer in this chapter to the "Enabling Devices in Computer Setup" section.

## Understanding the Default Boot Sequence

By default, when more than one bootable device is in the system, the notebook chooses the startup device by searching enabled devices and locations in a predetermined sequence.

On every boot, the system looks for a bootable drive A device first. If it fails to find a bootable drive A device, it searches for bootable drive C devices. Drive A devices include CDs or DVDs, diskettes, and SuperDisks. Drive C devices include optical drive disks and hard drives.

The hard drive can boot as only drive C. A network interface card (NIC) does not have a drive letter assigned to it.

An optical drive device (CD or DVD) can boot either as drive A or drive C, depending on the format of the CD or DVD. Most bootable CDs or DVDs boot as drive A. If you have an optical drive that boots as the C drive, the system will boot the diskette drive before the optical drive.

You can change the sequence in which the notebook searches for a startup device by enabling MultiBoot and entering a new startup sequence, or *boot order*. Or, you can use MultiBoot Express to set the notebook to prompt you for a startup location each time the notebook is started or restarted.

By default, the notebook selects the startup device by searching enabled devices and locations in a predetermined sequence.

The notebook searches only once, in the order below, for a bootable device. If it does not find a bootable device in drive A, the notebook begins a search for a device that can boot as drive C.

The list below describes the order in which drive numbers are assigned. (The actual startup sequence varies by configuration.)

Sequence for devices that boot as drive A:

1. Disc in an optical drive in a Port Replicator MultiBay or in an External MultiBay that boots as drive A.
2. Diskette in a drive in a Port Replicator MultiBay or in an External MultiBay.
3. SuperDisk in a drive in a Port Replicator MultiBay or in an External MultiBay.

Sequence for devices that boot as drive C:

1. Disc in an optical drive in a Port Replicator MultiBay or in an External MultiBay that boots as drive C.
2. Hard drive in the notebook hard drive bay.
3. Hard drive in a Port Replicator MultiBay or in an External MultiBay.

Since no drive letter is associated with the NIC, changing the boot order of a NIC does not affect drive letters of the other devices.

# Enabling Devices in Computer Setup

The notebook can start up from a USB device or the NIC only if that device has been *enabled* for inclusion in MultiBoot.

To enable a device or location for inclusion in MultiBoot:

1. Turn on or restart the notebook. Press **F10** while the F10 = ROM Based Setup message is displayed in the lower left of the screen.
   - ❏ To change the language, press **F2.**
   - ❏ For navigation instructions, press **F1.**
2. Use the arrow keys to select the Advanced menu > Device Options.
   - ❏ To enable bootable media in USB drives or in drives inserted into a Port Replicator, select Enable USB legacy support.
   - ❏ To enable a NIC, select Internal Network adapter boot.
3. To save your preferences and exit Computer Setup, use the arrow keys to select File > Save Changes and Exit, then follow the instructions on the screen.

   Your preferences are set as you exit Computer Setup and are in effect when the notebook restarts.

To connect a NIC to a Preboot eXecution Environment (PXE) or Remote Program Load (RPL) server during startup without using MultiBoot, quickly press **F12** when the Network Service Boot message appears briefly in the lower right corner of the screen.

## Understanding MultiBoot Results

Before changing the startup sequence, consider the following:

- When the notebook restarts after changing the boot order, it considers only the first device of each drive type when searching for a startup device.

  For example, the notebook is connected to a Port Replicator having a diskette drive and a SuperDisk drive. In the default boot sequence, the diskette drive comes before the SuperDisk drive. But if the system fails to boot to the diskette (either because it does not contain a diskette or because the diskette is not bootable) it does not try the SuperDisk drive. Instead, it tries the first hard drive device present in the system.

- Changing the boot sequence also changes the logical drive designations. For example, if you start up from a CD-ROM drive with a disc that boots as drive C, that CD-ROM drive becomes drive C, and a hard drive in the hard drive bay becomes drive D.
- Starting up from a NIC does not affect logical drive designations because no drive letter is associated with the NIC.
- Drives in a Port Replicator are treated like external USB devices in the boot sequence and must be enabled in F10 Computer Setup.

## Setting MultiBoot Preferences

There are two ways to use MultiBoot:

- Set a new default boot sequence the notebook uses each time it starts up.
- Use variable boot sequences using MultiBoot Express. This feature prompts you for a startup device each time the notebook is started or restarted.

## Setting a New Default Boot Sequence

Use Computer Setup to set a startup sequence that the notebook uses each time it is started or restarted.

1. To open Computer Setup, turn on or restart the notebook. Press **F10** while the F10 = ROM Based Setup message is displayed in the lower left of the screen.
   - ❏ To change the language, press **F2.**
   - ❏ For navigation instructions, press **F1.**
2. Use the arrow keys to select Advanced > Boot Options, then press **enter.**
3. Toggle the MultiBoot field to Enable.
4. Toggle the Boot Order fields to the boot sequence that you prefer.
5. To save your preferences and exit Computer Setup, use the arrow keys to select File > Save Changes and Exit, then follow the instructions on the screen.

   Your preferences are set as you exit Computer Setup and are in effect when the notebook restarts.

## Setting a MultiBoot Express Prompt

Use Computer Setup to set the notebook to display the MultiBoot menu each time the notebook is started or restarted.

1. To open Computer Setup, turn on or restart the notebook. Press **F10** while the F10 = ROM Based Setup message is displayed in the lower left of the screen.
   - ❏ To change the language, press **F2.**
   - ❏ For navigation instructions, press **F1.**
2. Use the arrow keys to select Advanced > Boot Options, then press **enter.**

3. In the Express Boot Popup Delay (Sec) field, select the length of time in seconds that you want the notebook to display the Express Boot menu before it defaults to the current MultiBoot setting. (When 0 is selected, the Express Boot menu is not displayed.) This time interval is known as the timeout.
4. To save your settings and exit Computer Setup, use the arrow keys to select File > Save Changes and Exit, then follow the instructions on the screen.

   The new settings are saved when you exit Computer Setup. Changes will be in effect when the notebook restarts.

## Entering MultiBoot Express Preferences

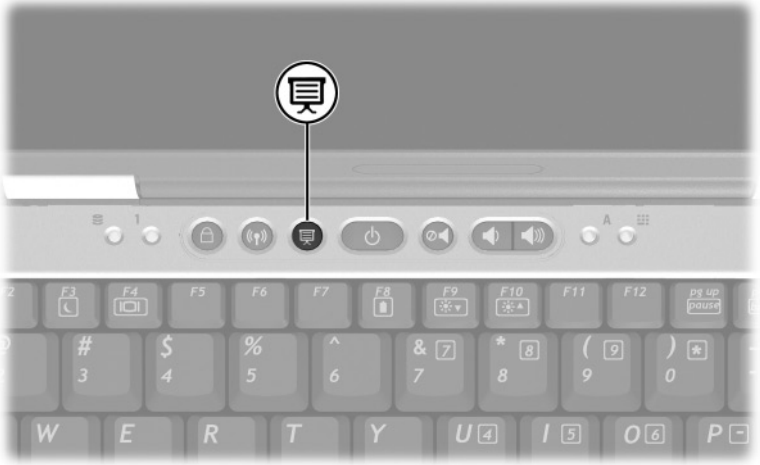
When the Express Boot menu is displayed during startup:

- To specify a startup location from the Express Boot menu, select your preference within the timeout, then press **enter.**
- To prevent the notebook from defaulting to the current MultiBoot setting, press any key within the timeout. The notebook will not start up until you select a startup location and press **enter.**
- To allow the notebook to start up according to the current MultiBoot setting, wait for the timeout to expire.

# 6

# Presentation Mode

The Presentation Mode Quick Launch button toggles presentation mode on and off. Turning presentation mode on opens an application, folder, file, or Web site that you specify. The image simultaneously displays on the notebook screen and an external device connected to the external monitor connector or S-Video-out jack on the rear panel or to connectors on an optional Port Replicator. For more information on Quick Launch buttons, refer to the "Pointing Devices and Keyboard" chapter in the *Hardware Guide* on this CD.



*Presentation Mode Quick Launch button*

You can modify the presentation mode settings using the Quick Launch Button software. Quick Launch Button software provides support for the Quick Launch buttons and the hotkeys on the

notebook keyboard and external keyboards. External keyboards can be attached to a USB connector on the notebook or to an optional Port Replicator.

# Opening Quick Launch Button Software

The first time you press the Presentation Mode button, a Presentation Mode welcome dialogue box opens. This dialogue box enables you to program the Presentation Mode button to automatically open an item and adjust the video and power settings for optimum viewing. This box also enables you to control whether the welcome box is opened each time you press the Presentation Mode button.

If you check Don't Show me this Dialog Box Again in the welcome dialog box, you must open the Quick Launch Button software to change settings. To open the Quick Launch Button software:

- **In Windows 2000,** select Start > Settings > Control Panel > Quick Launch Buttons.
- **In Windows XP,** select Start > Control Panel > Printer and Other Hardware > Quick Launch Buttons.

You can also open Quick Launch Button software using an icon in the taskbar or on the desktop. To add an icon to the system tray or desktop, open the Quick Launch Button software. Select the Advanced tab. Place a check mark next to Show icon on the taskbar to add an icon to the taskbar. You can double-click the icon to start Quick Launch Button software. You can left-click it to change the current scheme. Right-clicking the icon displays the following menu items:

- Adjust Quick Launch Buttons Properties: opens the Quick Launch Button software
- Hide Icon: removes the icon from the system tray

To place a shortcut to Quick Launch Button software on your desktop, place a check mark next to Show icon on the desktop. To open Quick Launch Button software from the desktop, double-click the shortcut.

# Changing Presentation Mode Settings

The Item to Open field enables you to indicate a file, an application, a Web site, or a folder to open when the Presentation Mode button is pressed. You can browse for an item by clicking the Browse button, or you can indicate a recently programmed item by clicking the down arrow in the Item to Open field.

The Video Mode and Power Schemes fields enable you to control the video and power properties for presentation mode. Click the down arrow to indicate a video mode. The default video settings are 800 x 600, 32bit, 60 Hertz. Click the down arrow to choose a power options profile. The Adjust Power Properties button next to the Power Scheme field launches Microsoft Power Options, where you can view or change the power scheme.

# Using Presentation Mode

To use presentation mode, press the presentation mode button. If presentation mode is on, it turns off if you:

- Log off from your user account.
- Shut down the notebook.

**CAUTION:** To prevent possible video and audio degradation and loss of audio or video playback functionality, do not initiate Standby while using drive media.

If presentation mode is on and Standby is initiated by you or the system, presentation mode remains on. Your display and power settings remain; however, depending on the application you are using, you may need to reopen your file or application.If Standby is initiated while a CD, CD-RW, or DVD is in use, your playback may be interrupted.

For more information regarding the playback function of your application or optical drive, refer to the documentation included with the product.

# 7

# Computer Setup

## Using Computer Setup

Computer Setup is a preinstalled, ROM-based utility that can be used even when the operating system is not working or will not load. If the operating system is working, the notebook restarts the operating system after you exit Computer Setup.

An external keyboard or mouse connected by USB can be used in Computer Setup only if USB legacy support is enabled. For more information about USB, refer to the "External Devices" chapter in the *Hardware Guide* on this CD.

The menu tables later in this chapter provide an overview of Computer Setup options.

## Accessing Computer Setup

The information and settings in Computer Setup are accessed from the File, Security, Tools, and Advanced menus:

1. To open Computer Setup, turn on or restart the notebook. Press **F10** while the F10 = ROM Based Setup message is displayed in the lower left of the screen.
   - ❏ To change the language, press **F2.**
   - ❏ To view navigation information, press **F1.**
   - ❏ To return to the Computer Setup menu, press **esc.**
2. Select the File, Security, Tools, or Advanced menu.

3. To exit Computer Setup:
   - ❏ To exit without saving any of the settings you may have entered, use the arrow keys to select File > Ignore Changes and Exit, then follow the instructions on the screen.
   - ❏ To exit and save all the settings you have entered, use the arrow keys to select File > Save Changes and Exit, then follow the instructions on the screen.
   - ❏ Your preferences are set as you exit Computer Setup and are in effect when the notebook restarts.

## Restoring Computer Setup Defaults

To return all settings in Computer Setup to the values that were set at the factory:

1. To open Computer Setup, turn on or restart the notebook. Press **F10** while the F10 = ROM Based Setup message is displayed in the lower left of the screen.
   - ❏ To change the language, press **F2.**
   - ❏ To view navigation information, press **F1.**
2. Use the arrow keys to select File > Restore defaults.
3. Select the Restore Defaults check box.
4. To confirm the restoration, press **F10.**
5. Select File > Save Changes and Exit, then follow the instructions on the screen.

When the computer restarts, the factory settings are restored, and any identification information you may have entered is saved.

# Selecting from the File Menu

| Select | To Do This |
|---|---|
| System information | ■ View identification information about the notebook and any battery packs in the system.<br>■ View specification information about the processor, memory and cache size, video revision, keyboard controller version, and system ROM. |
| Save to floppy | Save system configuration settings to a diskette. |
| Restore from floppy | Restore system configuration settings from a diskette. |
| Restore defaults | Replace configuration settings in Computer Setup with factory default settings. (Identification information is retained.) |
| Ignore changes and exit | Cancel changes entered during the current session, then exit and restart the notebook. |
| Save changes and exit | Save changes entered during the current session, then exit and restart the notebook. The changes you save are in effect when the notebook restarts. |

# Selecting from the Security Menu

| Select | To Do This |
|---|---|
| Administrator password | Enter, change, or delete an administrator password. |
| Power-on password | Enter, change, or delete a power-on password. |
| DriveLock passwords | Enable/disable DriveLock; change a DriveLock User or Master password.<br><br>✎ Drive Lock Settings are accessible only when you enter Computer Setup by turning on (not restarting) the notebook. |
| SmartCard password | Enable/disable support for BIOS SmartCard password. |
| Device security | ■ Enable/disable devices in the system.<br>■ Enable NIC for inclusion in MultiBoot. |
| System IDs | Enter user-defined identification values. |

# Selecting from the Tools Menu

| Select | To Do This |
|---|---|
| HDD Self Test Options | Run a quick or comprehensive self test on any hard drive in the system. |

# Selecting from the Advanced Menu

| Select | To Do This |
|---|---|
| Language (or press **F2**) | Change the Computer Setup language. |
| Boot Options | ■ Enable/disable QuickBoot, which starts the notebook more quickly by eliminating some startup tests. (If you suspect a memory failure and want to test memory automatically during startup, disable QuickBoot.)<br>■ Enable/disable MultiBoot, which sets a startup sequence that can include most bootable devices in the system. For details, refer to Chapter 5, "MultiBoot."<br>■ Set the boot order. |
| Device Options | ■ Enable/disable Num lock mode at startup.<br>■ Enable/disable multiple standard pointing devices at startup. (To set the notebook to support only a single, usually nonstandard, pointing device at startup, select Disable.)<br>■ Select a parallel port mode: EPP (Enhanced Parallel Port), standard, bidirectional, or ECP (Enhanced Capabilities Port). |

*(Continued)*

| Select | To Do This |
|---|---|
| Device Options *(continued)* | ■ Enable/disable USB legacy support for a USB keyboard, mouse, and hubs. When USB legacy support is enabled:<br>❒ A USB keyboard, mouse, and hubs work even when a Windows operating system is not loaded.<br>❒ The notebook can start from a bootable hard drive, diskette drive diskette, SuperDisk drive disk, or CD or DVD inserted into a drive connected by USB to the notebook or an optional Port Replicator.<br>■ Enable/disable all settings in the SpeedStep window. (When Disable is selected, the notebook runs in Battery Optimized mode.)<br>■ Swap the functions of the **Fn** key and left **ctrl** key. |

# 8

# Software Updates and Restorations

## Preparing to Update Software

For optimal notebook performance and to make sure your notebook remains compatible with changing technologies, HP recommends that you install the latest versions of HP software as they become available.

To update HP software:

1. Prepare for any update by identifying your notebook type, series or family, and model. Prepare for a system ROM update by identifying the ROM versions currently installed on the notebook.
2. Access the updates on your local HP Web site or the *Support Software* CD.
3. Download and install the updates.

The notebook system ROM stores the BIOS. The BIOS determines how the notebook hardware interacts with the operating system and external devices and also supports such notebook services as time and date.

If your notebook connects to a network, HP recommends that you consult with your network administrator before installing any software updates, especially system ROM updates.

# Obtaining the Support Software CD

The *Support Software* CD provides HP software updates and installation instructions. The CD includes device drivers, ROM updates, and utilities.

To purchase the current *Support Software* CD or a subscription that provides both the current version and future versions of the CD, refer to the *Worldwide Telephone Numbers* booklet included with the notebook to contact an HP Customer Care Center.

# Accessing Notebook Information

To access the updates for your notebook, the following information will be needed:

- The product *category* is Notebook.
- The product *family* name and *series* number are printed in the lower left corner of the display bezel.
- More complete *model* information is provided on the serial number label on the bottom of the notebook.

To determine whether available ROM updates contain later ROM versions than those currently installed on the notebook, you need to know the version of the system ROM currently installed.

ROM version information can be displayed in Computer Setup. Computer Setup is a non-Windows utility. For general information about using Computer Setup, refer to Chapter 7, "Computer Setup."

To display ROM information in Computer Setup press **Fn+esc** or:

1. To open Computer Setup, turn on or restart the notebook. Press **F10** while the F10 = ROM Based Setup message is displayed in the lower left of the screen.
   - ❏ To change the language, press **F2.**
   - ❏ For navigation instructions, press **F1.**
2. Select the File menu > System Information. The system ROM information is displayed.
3. To exit Computer Setup without changing any settings, use the arrow keys to select File > Ignore Changes and Exit, then follow the instructions on the screen. After Computer Setup closes, the notebook restarts in Windows.

# Downloading Software from the Internet

Most software at the HP Web site is packaged in a compressed file called a SoftPaq. Some ROM updates may be packaged in a compressed file called a ROMPaq. Other ROM updates may be provided as a CPQFlash SoftPaq.

Most download packages contain a file named Readme.txt. A Readme.txt file contains information regarding installing and troubleshooting the file. The Readme.txt files included with ROMPaqs are in English only.

# Downloading System ROM

**CAUTION:** To prevent an unsuccessful installation, download and install the system ROM only while the notebook is connected to reliable external power using the AC Adapter. Do not download or install a system ROM while the notebook is running on battery power, docked in an optional Port Replicator, or connected to an optional power source. During the download and installation:

- Do not unplug the notebook from the electrical outlet.
- Do not shut down the notebook.
- Do not remove or insert a drive.

To download and install a system ROM:

1. Access the page at the HP Web site that provides software for your notebook.
2. Follow the instructions on the screen to locate the system ROM you want to download.
3. At the download area:
   a. Write down the information (date and name) of any update that is later than the system ROM currently installed on your notebook.
   b. Select the software you want and follow the downloading instructions on the Web page.
4. When the download is complete, open Windows Explorer.
5. In Windows Explorer, select My Computer > the hard drive designation (usually, drive C) > the location you specified in step 3b.
6. In the specified folder, select the name or number of the software package containing the system ROM update. The system ROM installation begins.

7. To complete the installation, follow the instructions on the screen.

After a message on the screen reports a successful installation, you can delete the download package from the specified folder.

## Downloading Other Software

To update other software:

1. Access the page at the HP Web site that provides software for your notebook.
2. Follow the instructions on the screen to find the software you want to update.
3. At the download area, select the software you want and follow the downloading instructions on the Web page.
4. When the download is complete, open Windows Explorer.
5. In Windows Explorer, select My Computer > the hard drive designation (usually, drive C) > the file location you specified in step 3.
6. In the specified folder, select the name or number of the software package containing the update.
7. Select the file that includes an .exe extension, for example, Filename.exe. The installation begins.
8. To complete the installation, follow the instructions on the screen.

After a message on the screen reports a successful installation, you can delete the download package from the specified folder.

# System Recovery

The notebook system recovery process provides several ways to recover system functionality. The *Driver Recovery* and *Operating System* CDs enable you to recover or repair your notebook without losing personal data. The *Operating System* CD also enables you to reinstall the operating system software provided with the notebook.

For best results, attempt to recover optimal notebook functionality by using the following procedures in the order described here.

## Safeguarding Your Data

Software or devices added to the notebook can cause your system to become unstable. To safeguard your documents, store personal files in the My Documents folder and periodically create a backup copy of My Documents.

## Setting System Restore Points (Windows XP Only)

Notebooks with Windows XP operating systems provide the option of setting system restore points (benchmarks) daily as you change your personal settings. The notebook can also set restore points when you add new software or devices. You should periodically set system restore points when the notebook is functioning at optimal performance and before installing new software or devices. This enables you to return to a previous configuration restore point if you encounter problems.

To set a system restore point:

1. Select Start > Help and Support. Select the task “Use Tools to view your computer information and diagnose problems.” Select System Restore. A System Restore window opens.
2. Follow the on-screen directions for setting a restore point.

To restore the notebook to a previous date and time when it was functioning optimally:

1. Select Start > Help and Support > Tools > System Restore.
2. Follow the on-screen directions for restoring the notebook.

## Repairing the Operating System

To attempt an operating system repair without deleting your personal data, use the *Operating System* CD that was shipped with the notebook:

1. Connect the notebook to external power and turn on the notebook.
2. Immediately insert the *Operating System* CD into the notebook.
3. Press and hold the power button for 5 seconds to turn off the notebook.
4. Press the power button again to start the notebook.
5. When prompted, press any key to boot from the CD. After a few minutes, the Welcome to Setup screen is displayed.
6. Press **enter** to continue. A Licensing Agreement screen is displayed.
7. Press **F8** to accept the agreement and continue. The Setup window is displayed.
8. Press **R** to repair the selected Windows installation. The repair process begins. This process might take 1 to 2 hours to complete. The notebook restarts in Windows after the process is complete.

# Reinstalling the Operating System

If other recovery efforts do not successfully repair the notebook, you can reinstall the operating system.

**CAUTION:** Personal data and software you have installed on the notebook will be lost during the operating system reinstall. To protect your data, back up your data before reinstalling your operating system. See the Windows online Help utility to learn more about backing up your files.

To reinstall the operating system:

1. Connect the notebook to external power and turn on the notebook.
2. Immediately insert the *Operating System* CD into the notebook.
3. Press and hold the power button for 5 seconds to turn off the notebook.
4. Press the power button again to start the notebook.
5. When prompted, press any key to boot from the CD. After a few minutes, the Welcome to Setup screen is displayed.
6. Press **enter** to continue. A Licensing Agreement screen is displayed.
7. Press **F8** to accept the agreement and continue. The Setup window is displayed.
8. Press **esc** to continue installing a new copy of the operating system instead of repairing it.
9. Press **enter** to set up the operating system.
10. Press **C** to continue setup using this partition.

11. Select Format the partition using the NTFS file system (Quick) and press **enter.**

**CAUTION:** Formatting this drive will delete all current files.

12. Press **F** to format the drive. The reinstallation process begins. This process might take 1 to 2 hours to complete. The notebook restarts in Windows when the process is complete.

When prompted for the product key, refer to the Microsoft Certificate of Authenticity label located on the bottom of the notebook.

## Reinstalling Device Drivers and Other Software

After the operating system installation process is complete, you must reinstall drivers.

**For Windows 2000 installations,** change the display resolution to its highest setting prior to reinstalling the drivers. To change display resolution, select Start > Settings > Control Panel > Display, and select the Settings tab.

To reinstall drivers, use the *Driver Recovery* CD included with the notebook:

1. While running Windows, insert the *Driver Recovery* CD into the optical drive.

   If you do not have Autorun enabled, select Start > Run. Then enter D:\SWSETUP\APPINSTL\SETUP.EXE (where D indicates the optical drive).

2. Follow the on-screen instructions for installing the drivers.

After the drivers are reinstalled, you must reinstall any software you added to the notebook. Follow the installation instructions provided with the software.

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