Chapter 3

This chapter provides information on the softwares and utilities inside the support CD

Software support

3.1 Control Center

The Control Center utility is a
management software that launches
applications and configures network
settings. The Control Center starts
automatically when the system boots and displays the Control Center icon
in the Windows® taskbar. The Control Center icon serves as an application
launcher, and indicator of signal quality and Internet connection.

3.1.1 Control Center icons

The Control Center icon indicates the quality of link to the access point
and connection to the Internet. Refer to the table below for icon
indications.

**Infrastructure network** (wireless LAN adapter to an access point)

	Excellent link quality and connected to the Internet		Excellent link quality but not connected to the Internet
	Good link quality and connected to the Internet		Good link quality but not connected to the Internet
	Fair link quality and connected to the Internet		Fair link quality but not connected to the Internet
	Poor link quality but connected to the Internet		Poor link quality and not connected to the Internet
	Not linked but connected to the Internet		Not linked and not connected to the Internet

Ad-hoc network (wireless LAN adapter to other Wi-Fi device)

|	
	Linked
	Not Linked
	Connected to the Internet

3.1.2 Control Center right-click menu

Right-clicking the Control Center icon displays the softwares and utilities the ASUS USB Wireless LAN Adapter supports. Refer to the succeeding sections for details on these utilities and softwares.
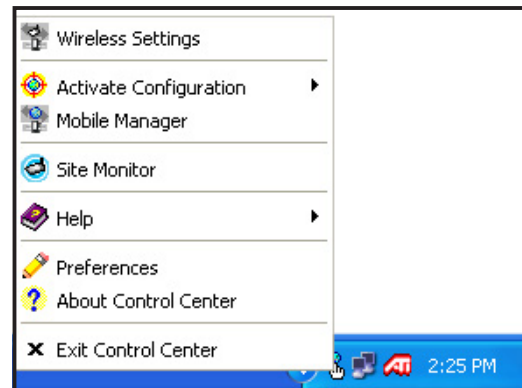
3.1.3 Control Center left-click menu

Left-clicking the Control Center icon displays the left-click menu.
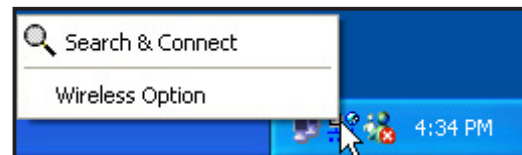
**Search & Connect** – View available wireless networks within range.

Wireless Option – Sets your Windows® XP wireless networking environment. The **Wireless Option** window appears when you select this option. Select **"Only use ASUS utilities and disable XP wireless function"** to avail all ASUS USB wireless LAN adapter features. Click **OK**.
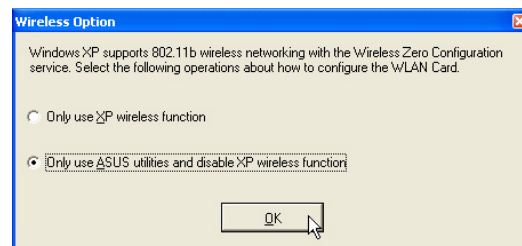
3.2 Wireless Settings

The Wireless Settings is the main interface that allows you to control the ASUS USB wireless LAN adapter. Use the Wireless Settings to view the operational and connection status, or to modify the wireless LAN adapter configuration.

Tabbed property sheets

Property window

The Wireless Settings window is composed of the property window and tabbed property sheets. Click the icons in the property window to display their tabbed property sheets.
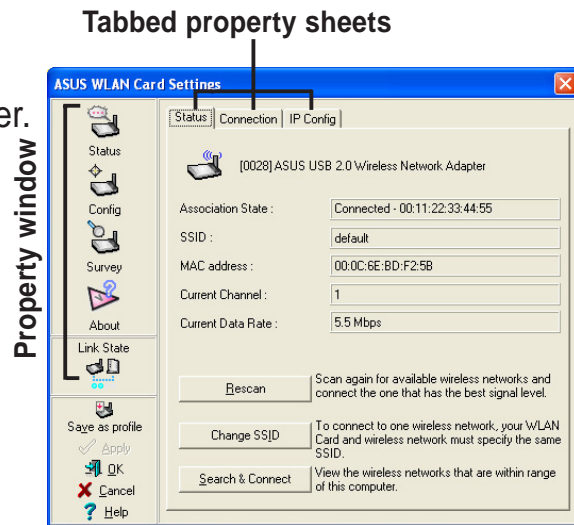
3.2.1 Status

Status tab

The Status tab provides general information on the wireless LAN adapter.

Association State. This field displays the connection status and MAC address of the network where the system is connected.

Service Set Identifier (SSID). This field displays the SSID of the network to which the card is associated or is intending to join. The **SSID** is a group name shared by every member of a wireless network. Only client PCs with the same SSID are allowed to establish a connection.

The **MAC Address** field displays the hardware address of a device connected to a network.

The **Current Channel** field displays the radio channel that the card is currently tuned. The channel changes as wireless LAN adapter scans the available channels.

The **Current Data Rate** field displays the data transfer rate between the wireless LAN adapter and the access point.
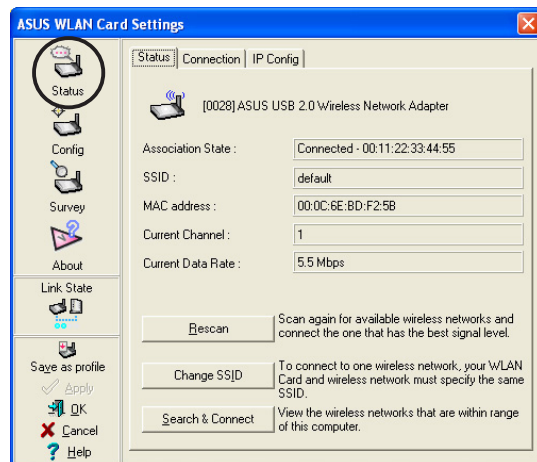
Rescan button - Click to allow wireless LAN adapter to scan available wireless networks and to connect to the network with the best signal quality.

Change SSID button - Click to change the SSID. Clicking this button opens the Config-Basic window. See "Basic tab" on page 3-7.

Search and Connect button - Click to view all wireless networks within the range of your system. Clicking this button opens the Site Survey window. See page 3-9.
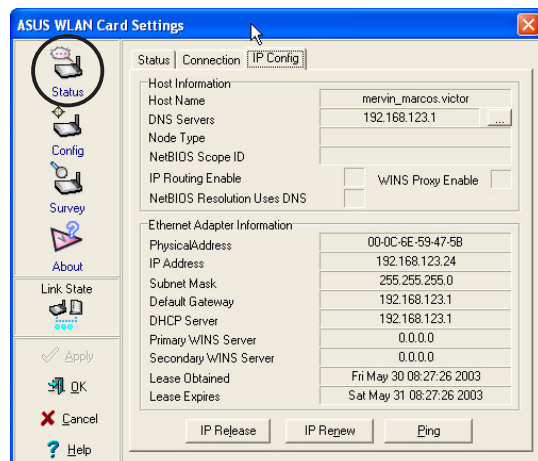
Connection tab

The Connection tab provides real-time information on connection throughput, frame errors, signal strength, link quality and overall connection quality in graphical representation.
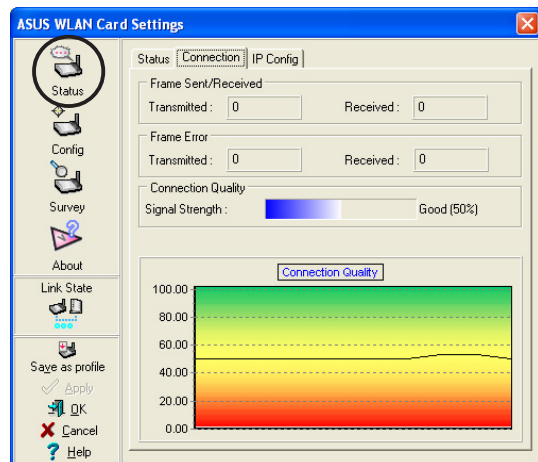
IP Config tab

The IP Config tab displays the current host and Ethernet adapter configurations. IP Config displays TCP/IP information including the IP address, subnet mask, default gateway, DNS and Windows Internet Naming Service (WINS) configurations.

Use the IP Config Tab to verify your network settings.

IP Release. Click to release the DHCP IP address for the wireless LAN adapter.

IP Renew. Click to renew the DHCP IP address for the wireless LAN adapter.

Ping. Click to display the Ping tab. Use ping to verify a connection to a particular host name or IP address.

The IP Release and IP Renew buttons may only be used on a DHCP-configured wireless LAN adapter.

Ping tab

The Ping tab allows you to verify the connection of your computer with another computer in a network. To ping a connection:

1. Type the IP address of the connection you want to verify in the **IP Address** field.

2. Configure the ping session by assigning the size and count of packet to send, and the time limit for a ping session to continue (in milliseconds).

3. Click the **Ping** button.

During the ping session, the **Ping** button toggles into a **Stop** button. Click **Stop** anytime to cancel the ping session.

The session field displays information on the verified connection including the roundtrip time (minimum, maximum, and average) and packets sent, received, and lost after a ping session.

Click the **Clear** button to clear the session field.
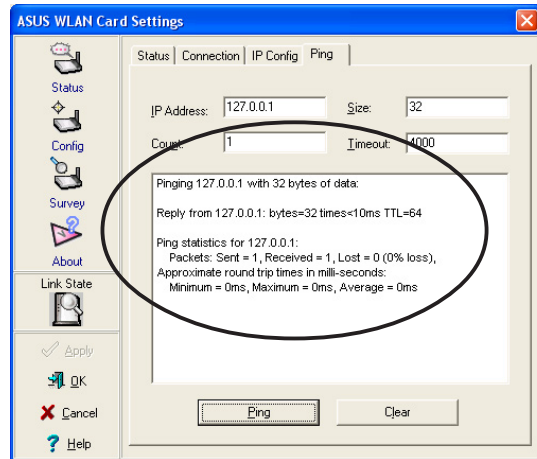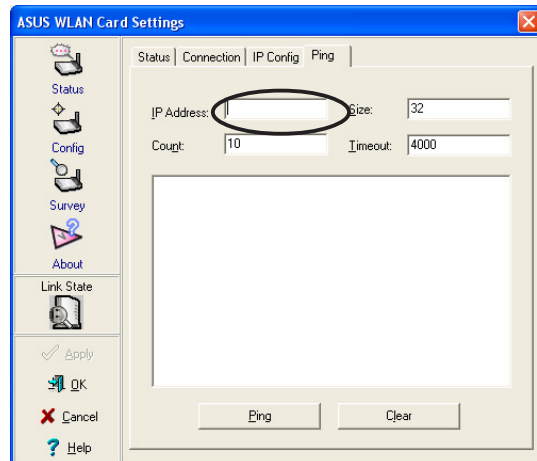
3.2.2   Configuration

Basic tab

The **Basic** tab provides general information on network types and other configurations.

Network Type. Select the type of network that you wish to use. Select *Infrastructure* mode to establish a connection with an access point (AP). In this mode, your system can access wireless LAN and wired LAN (Ethernet) via the AP. Select the *Ad Hoc* mode to communicate directly with other mobile clients within the wireless LAN adapter range.
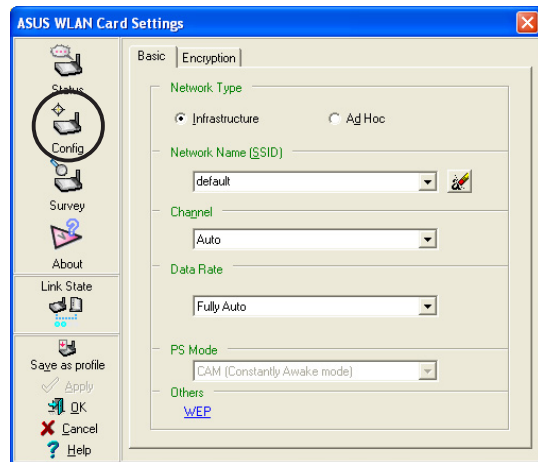
Network Name - Displays the network SSID. The network SSID is a string use to identify a wireless LAN. Assign different SSIDs to segment the wireless LAN and increase network security. Set the SSID to a null string to allow your station to connect to any available access point. Null string may not be used in Ad-hoc mode.

Channel. In Infrastructure mode, wireless LAN adapter automatically tunes in to the access point channel. In Ad-hoc mode, select a channel that is allowed for use in your country/region.

Data Rate. Sets the data transmission rate to Fix or Auto. Select *Fully Auto* to allow the device to adjust to the most suitable connection. You may also fix data transfer rates to 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2 and 1 Mbps.

> **Note:** Operating the device at very high data rates reduces the operating range. When the "Data Rate" is changed, the adapter will survey available APs and connect to the AP with the strongest signal.

Others. Click the *WEP* or *Advanced* link to open the Encryption or Advanced property tab sheet.

Encryption tab

Wireless data transmissions between your wireless LAN adapter and the AP are secured using the Wired Equivalent Privacy (WEP) encryption. Check the *Data encryption (WEP enabled)* option to assign the WEP keys.

Check the *Network Authentication (Shared Mode)* option if you wish to use a network key to authenticate a preferred wireless network. Unchecking this option allows the network to operate on an Open System mode.

Key Format allows you to set a hexadecimal digit or ASCII character WEP key.

Key Length allows you to choose a 64-bit or a 128-bit WEP key. A 64-bit encryption contains 10 hexadecimal digits or 5 ASCII characters. A 128-bit encryption contains 26 hexadecimal digits or 13 ASCII characters.

> All wireless clients in a network must have identical WEP keys to communicate with each other or with an access point.
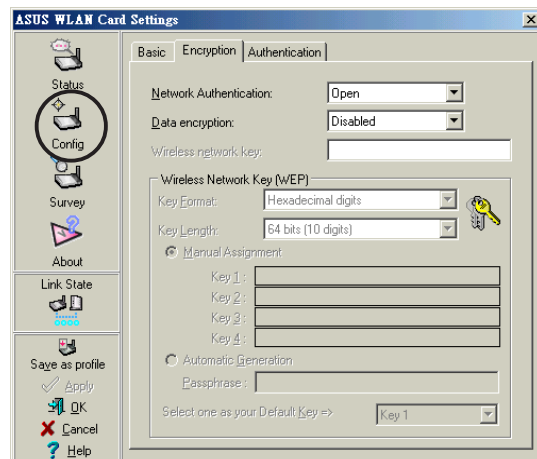
Two ways to assign WEP keys

Manual Assignment. For a 64-bit encryption, enter 10 hexadecimal digits (0~9, a~f, A~F) or 5 ASCII characters in each of the four WEP keys. For 128-bit encryption enter 26 hexadecimal digits (0~9, a~f, A~F) or 13 ASCII characters in each of the four WEP keys.

Automatic Generation. Type a combination of up to 64 letters, numbers, or symbols in the Passphrase field. The Wireless Settings utility uses an algorithm to generate four WEP keys based on the typed combination.

- 64-bit and 40-bit WEP keys use the same encryption method and can interoperate on wireless networks. This lower level of WEP encryption uses a 40-bit (10 hexadecimal digits assigned by the user) secret key and a 24-bit Initialization Vector assigned by the wireless LAN adapter. 104-bit and 128-bit WEP keys use the same encryption method.

- After assigning the WEP keys, click **APPLY** to save and activate the encryption. Manually assigned encryptions are more secure than automatically generated encryptions.

- Use Manual Assignment instead of Automatic Generation if you are not sure whether other wireless clients use the same algorithm as that of wireless LAN adapter.

- Keep a record of the WEP encryption keys.

3.2.3   Site Survey

The **Site Survey** window displays the available networks within the wireless LAN adapter range and the following network settings.

BSSID - The IEEE MAC address of the available wireless networks.

**SSID** - SSID (service set identifier) of the network.

CH - Direct sequence channel used by the network.

RSSI - Received Signal Strength Indicator (RSSI) in dBm.

Type - wireless network mode. AP indicates an Infrastructure network type. STA indicates an Ad-hoc network type.
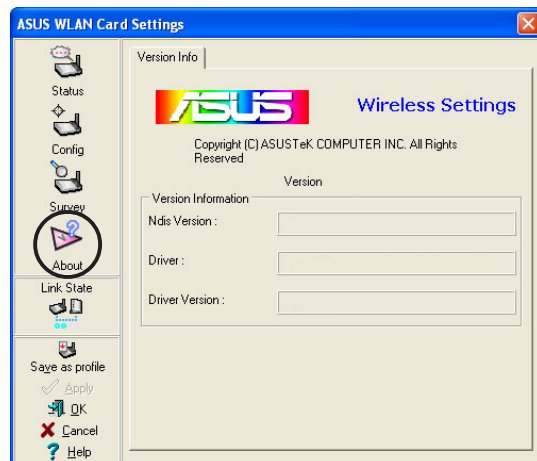
WEP - shows whether a network has an enabled (On) or disabled (Off) WEP encryption.

Select an available network and click **Connect** to establish connection. Click **Search** to rescan available networks.
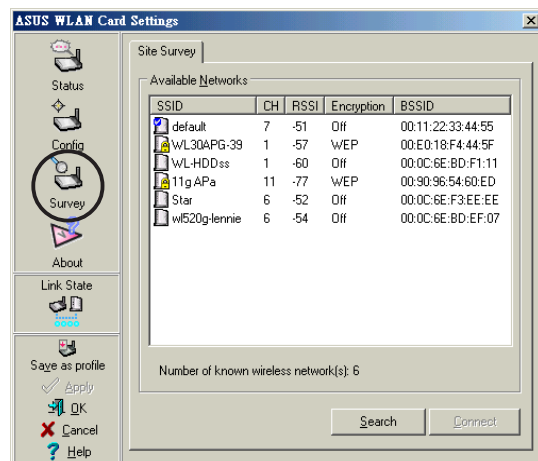
3.2.4   About Wireless Settings

Click the **About** icon to view the software version, driver version, and copyright information.

3.2.5   Link State

Displays the current connection status of the wireless LAN adapter to the AP or to other Wi-Fi devices. An icons represents the Link State for easy identification. Refer to the table below for icon indications.

Table of Icon Indications

|			
	Excellent link quality (Infrastructure)		Not linked (Infrastructure)
	Good link quality (Infrastructure)		Linked (Ad-hoc)
	Fair link quality (Infrastructure)		Not linked (Ad-hoc)
	Poor link quality (Infrastructure)		Scanning

3.2.6 Command icons

Apply. Click to apply the changes made on the Wireless Settings utility.

OK. Click to close the Wireless Settings utility window.

Cancel. Click to cancel any changes made on the Wireless Settings utility. Clicking **Cancel** closes the Wireless Settings utility window.

Help. Click to display the help menu.
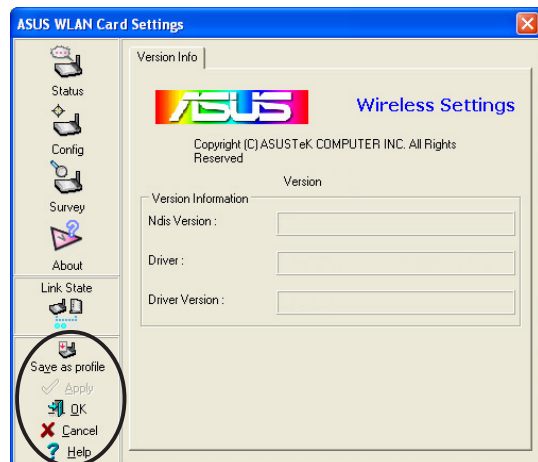
3.2.7 Other right-click options

Activate Configuration

This option allows you to select the wireless profile to use.

Mobile Manager

Click this button to launch the Mobile Manager utility. See section 3.2 "Mobile Manager" for details.

Site Monitor

Click this button to launch the Site Monitor utility. See section 3.3 "Site Monitor" for details.

Help Menu

The Control Center utility has a Help menu to guide you in using the Control Center and Wireless Settings utilities. Right-click the Control Center icon, then select **Help**. Select a utility to display the help window.

Preferences

The **Preferences** window allows you to customize the Control Center Utility settings.
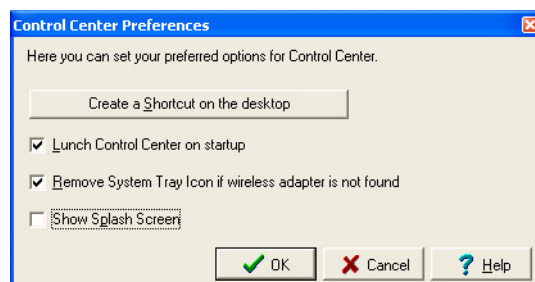
About Control Center

Select the **About Control Center**
option to display the Control Center
software version and copyright
information.

3.3   Mobile Manager

The Mobile Manager is a convenient tool to setup and manage network location settings. This utility allows users to configure multiple alternative configurations for different locations. You need to set up this utility once so you can easily switch configurations when you change your location.

To launch the Mobile Manager utility:

1. Click the Windows® **Start** button. Select **Programs** > **ASUS Utility** > **WLAN Card** > **Mobile Manager**, or right-click the **Control Center** icon on the Windows® taskbar, then select **Mobile Manager.**

2. The Mobile Manager main window appears.
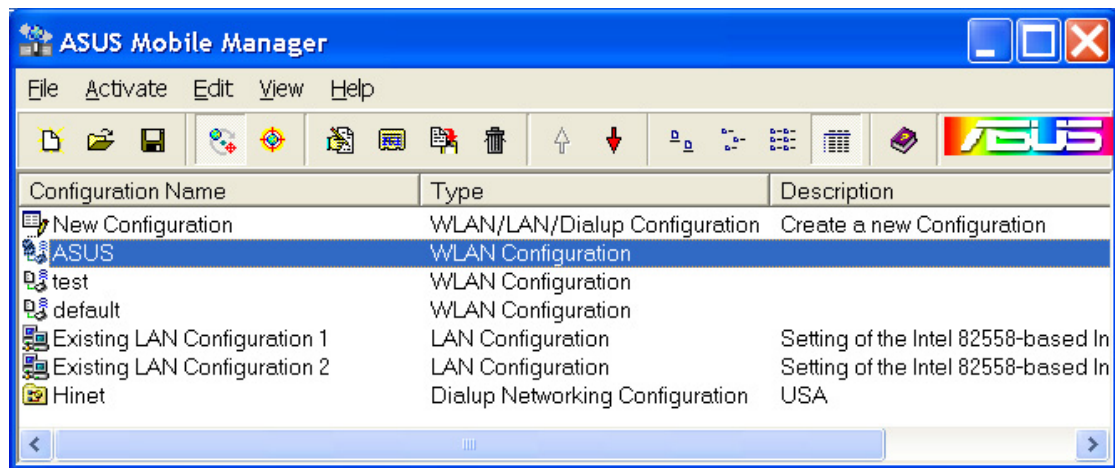
You may use the Mobile Manager utility main window to create, edit, or activate a configuration. The main window displays the menu bar, tool bar, and existing configurations.

The toolbar buttons allow quick access to some common commands in the Mobile Manager utility. All toolbar button commands are also available from the menu bar.

File menu

New Configuration 🗋 – Select this option to launch the New Configuration Wizard. See the next section for details.

Import Configuration 📂 – Select this option to load a configuration from an INI File.

Export Configuration 💾 – Save the selected configuration (containing Wireless Settings, TCP/IP Settings, Network Settings, etc.) to an INI file. The INI file may be saved on a floppy disk, and may be imported by other computers with the Mobile Manager utility. You may also use this file as backup.

Exit ☒ – Select to close the Mobile Manager utility.

Mobilize menu

Auto Roaming 🗺 – Activating this option allows the ASUS USB Wireless LAN Adapter to switch to another association you have specified when changes to an existing association occured. If no associations are made, Auto Roaming automatically connects to a wireless network based on your specified configurations.

Activate Configuration ◎ – Applies the configuration you selected from the list. Follow the screens instructions to activate a configuration.

> 📝 Activating a configuration requires system restart when you are using Windows® 98/ME OS. Windows® 2000/XP OS does not require system restart after you activate a configuration.

Edit menu

Edit Configuration 📝 – The Edit Configuration option allows you to edit selected configuration items. See the "Editing a Configuration" section on page 3-19 for details.

Rename 🖼 – Changes the name of the selected configuration.

Copy 📑 – Duplicates the selected configuration.

Delete 🗑 – Discards the selected configuration.

Up   – Raises the position of a selected wireless network configuration in the preferred network list.

**Down** – Lowers the position of the selected wireless network configuration in the preferred network list.

> Edit menu commands appear when you right-click a configuration in the Mobile Manager window.

View menu

Large Icons – Displays large icons for each configuration.

Small Icons – Displays small icons for each configuration.

List – Shows a list of available configurations.

Details – Displays the name, type, and description of a selected configuration.

Help menu

Contents – Displays the WinHelp window for online help.

About Mobile Manager – Displays the Mobile Manager version number and copyright information. Click on the ASUS logo to open the ASUS website.

3.3.2   Creating a new configuration

To create a new configuration:

1. Launch the New Configuration Wizard by clicking **File** from the menu bar, then select **New Configuration** from the drop-down menu, or double-clicking the **New Configuration** icon on the Mobile Manager toolbar. The New Configuration Wizard dialog box appears.

2. Choose the type of configuration you want to create. The configuration types are described below. Click **Next** when done.

- **ASUS Wireless Local Area Network Configuration.** Select this option if you have an installed ASUS USB Wireless LAN Adapter in your computer.

- **Wired Local Area Network Configuration.** Select this if your computer has an installed network interface card other than ASUS USB Wireless LAN Adapter.

- **Dialup Networking Configuration.** Select this option if your computer has an installed modem.

3. Enter the name and description of the configuration you wish to create, then click **Next**.
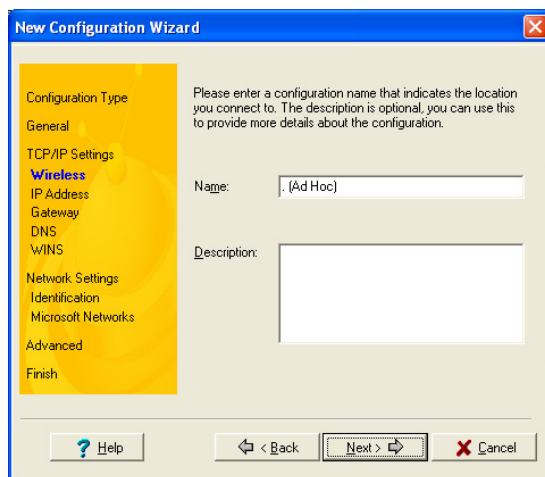
4. Configure the wireless settings including the network type, SSID, channel and WEP encryption. Click **Next** when done.
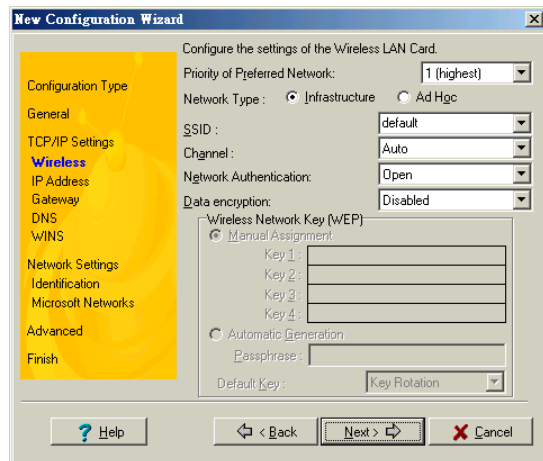
5. Set the IP address of the configuration using this window. Specify the IP address using the DHCP server (automatic) or manual assignment. The wizard auto-detects and displays the current system settings.

   Click **Next** when done.
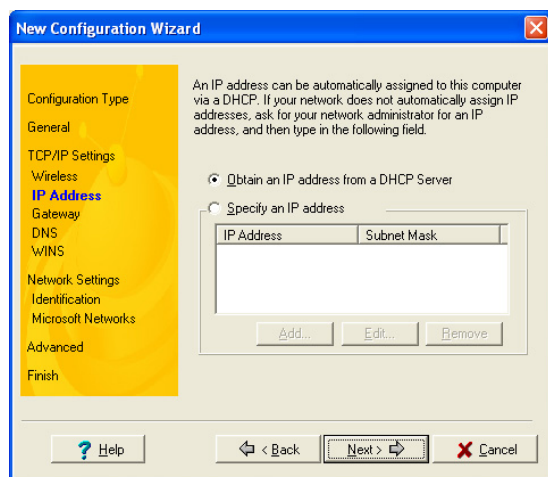
6. Enter the computer name, then click **Next**.
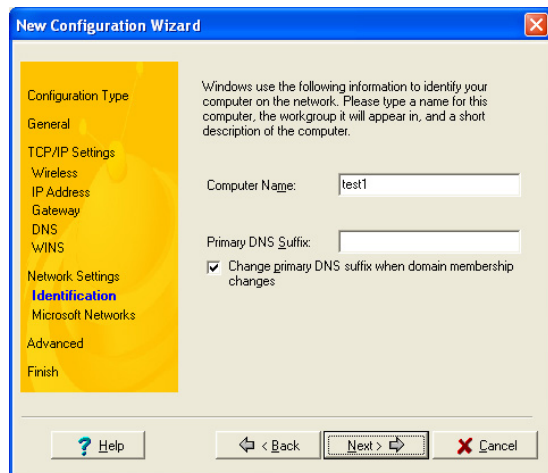
7. Use this window to set the proxy server and printer sharing.

    Click **Advanced** to display the proxy server and printer sharing options.

    Click **Next** when finished.
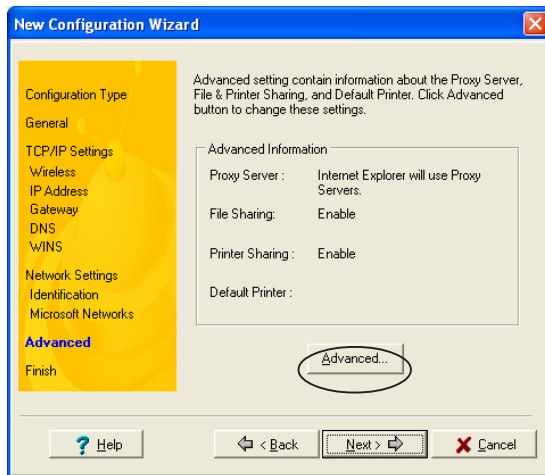
8. Check the **Activate Configuration Now** option to start using the created configuration. The Mobile Manager window displays the created configuration when it is not activated. Click **Finish** to close the wizard.
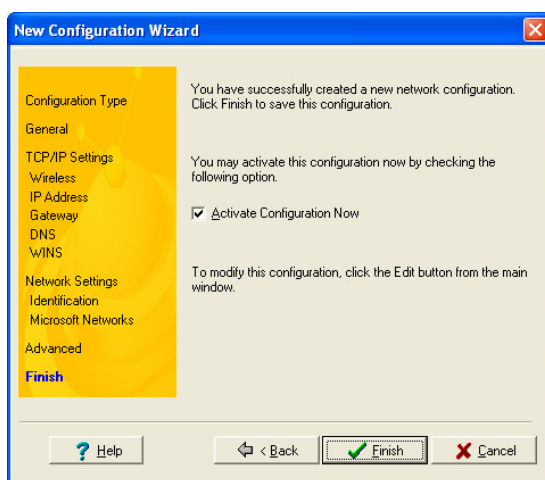
3.3.3   Editing a configuration

To edit a configuration:

1. Select a configuration from the Mobile Manager window.

2. Click **Edit** from the menu bar, then select **Edit Configuration**.

The **Edit Configuration** dialog box appears. Navigate through the windows by clicking the buttons on the left.
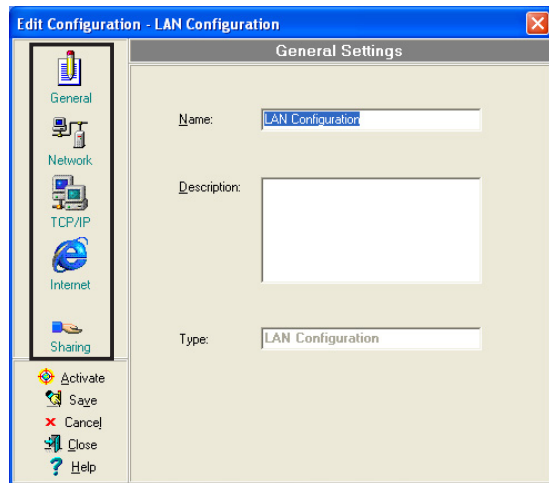
General settings

Name – The configuration name indicates the location from where you are dialing or connecting to a network. For example, name your configuration "Work-Meeting Room" if you are using this connection at your workplace meeting room.

Description – Enter additional details of the configuration in this field. This field is optional.

Network settings -Wireless tab

Priority of Preferred Network – This field allows you to select the priority of the preferred network.

Network Type

Infrastructure – Select the Infrastructure mode to establish connection to an access point.

Ad-hoc – Select the Ad-hoc mode to communicate directly with other WLAN devices without using an access point.
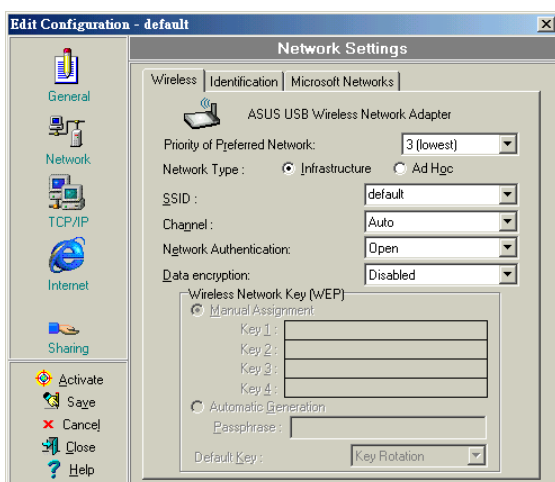
SSID – SSID stands for Service Set Identifier, a string used to identify a wireless LAN. You can only connect with an Access Point, that has the same SSID. Use different SSIDs to segment the wireless LAN and add security.

Channel – The Channel field allow you to select the radio channel for the ASUS USB Wireless LAN Adapter. In an Infrastructure network, your wireless LAN adapter automatically selects the correct frequency channel required to communicate with an Access Point.

WEP – This option allows you to disable or enable (64-bit or 128-bit) WEP encryption. The WEP Key is a 64-bit (5 byte) or 128-bit (13 byte) hexadecimal digit use to encrypt transmitted data packets and decrypt received data packets.

Network settings -Identification tab

Computer name – Assign your computer a unique name of up to 15 characters. The computer name allows other users in a network to recognize your computer. The computer name is generally the same with the DNS hostname.

Avoid using spaces or symbols in your computer name.
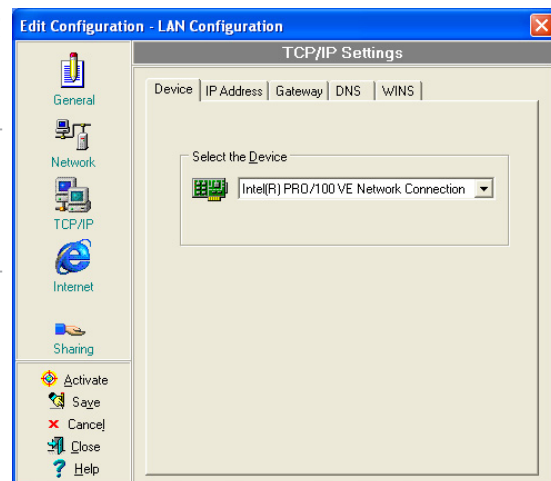
TCP/IP settings-Device tab

Select the network adapter you want to use for this configuration.

This item appears only when you are edtiting a wired LAN configuration.

TCP/IP settings-IP Address tab

Obtain an IP address from a DHCP server – The Dynamic Host Configuration Protocol (DHCP) server assigns IP addresses automatically within a specified range of devices.

Specify an IP address – Ask your network administrator for the IP address and subnet mask you should use. Type in the IP Address and Subnet Mask manually.

TCP/IP settings-Gateway tab

Specify the gateways. You may specify more than one gateway. Set up the primary gateway first.

Add – Click this button to add a new TCP/IP gateway address. The added gateway appears in the **Default gateways** list. Repeat the process to add another gateway. The value in each gateway field must be between 0 and 255. You can have up to eight IP addresses for gateways.

Edit – Click this button to edit a selected gateway address.

Remove – Click this button to delete a selected gateway address.

TCP/IP settings-DNS tab

The DNS tab allows you to configure the DNS settings of the selected configuration. This tab also allows you to add a DNS server and arrange them in order of their use. You may also assign a DNS suffix for a specified DNS server.

TCP/IP settings-WINS tab

The WINS tab allows you to configure the WINS settings of the selected configuration. This tab allows you to add WINS addresses and arrange them in order of their use. This tab also allows you to enable or import LMHOST lookup and adjust the NetBIOS settings.

Internet settings

A proxy server acts as a security barrier between your internal network (Intranet) and the Internet. A proxy server restricts other people on the Internet from gaining access to confidential information on your internal network or your computer.

Disable Proxy Server – Allows you to disable the proxy server.
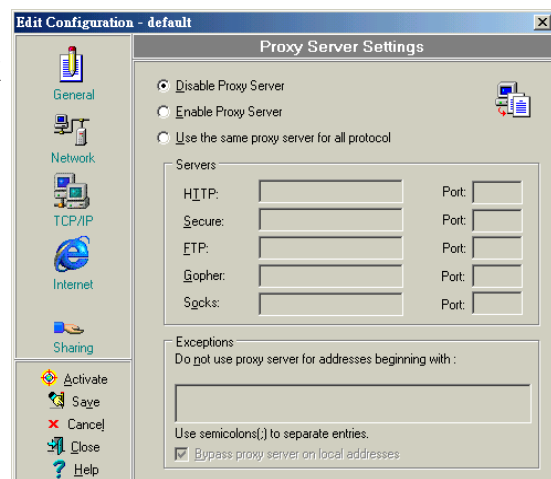
Enable Proxy Server – Use the Proxy server to access the Internet.

Use the same proxy server for all protocols – Specifies whether you want to use the same proxy server to gain access to the Internet using all protocols.

Servers field – Provides fields for you to type the address and port number of the proxy server you want to use to gain access to the Internet over HTTP, Secure, FTP, Gopher, and Socks protocol.

Exceptions field

Do not use proxy server for address beginning with – Type the Web addresses that do not need to be accessed through the proxy server. If you want to connect to a computer on your Intranet, make sure you type its address in this box. You may use wild cards to match domain and host names or addresses, for example, "*.company.com", "192.72.111.*".

Bypass proxy server for local addresses – This option allows you to use the proxy server for all local (Intranet) addresses.

> You may gain access to local addresses easier and faster if you do not use the proxy server.

Sharing settings

I want to set the default printer– Allows you to select the default printer for printer sharing.

**Default printer** – Allows you to select the default printer from a list of installed printers.

Click **New** to add a new printer using the Windows® Add Printer Wizard.

Click **Properties** to display the properties of a selected printer.

Command buttons

Use these buttons to activate, save, or cancel changes made in the configuration. Click **Close** to close the Edit Configuration window. Click **Help** to view the help files.
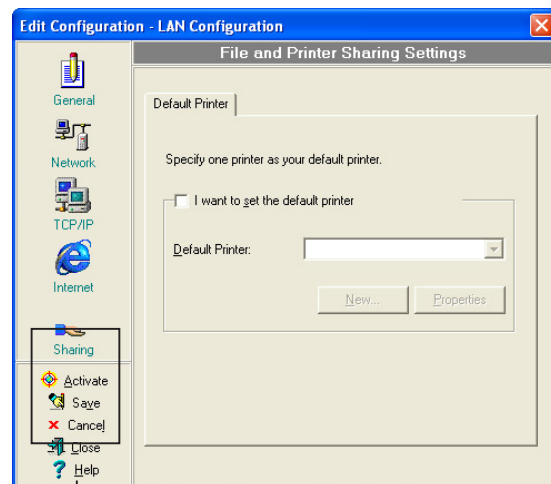
3.4   Site Monitor

The Site Monitor utility measures the signal-to-noise (SNR) values of all available wireless networks. Use this utility to determine the best placement of access points in a wireless network.

3.4.1   Launching Site Monitor

To launch the Site Monitor:

- Click the Windows® **Start** button, then select **Programs** > **ASUS Utility** > **WLAN Card** > **Site Monitor**, or

- Right-click the **Control Center** icon on the Windows taskbar, then select **Site Monitor**.
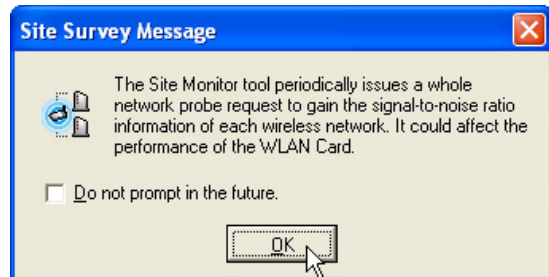
The Site Monitor survey message appears. Click **OK**.

3.4.2   Site Monitor main window

The Site Monitor main window displays the available wireless connections and the signal-to-noise (SNR) value of a selected connection.
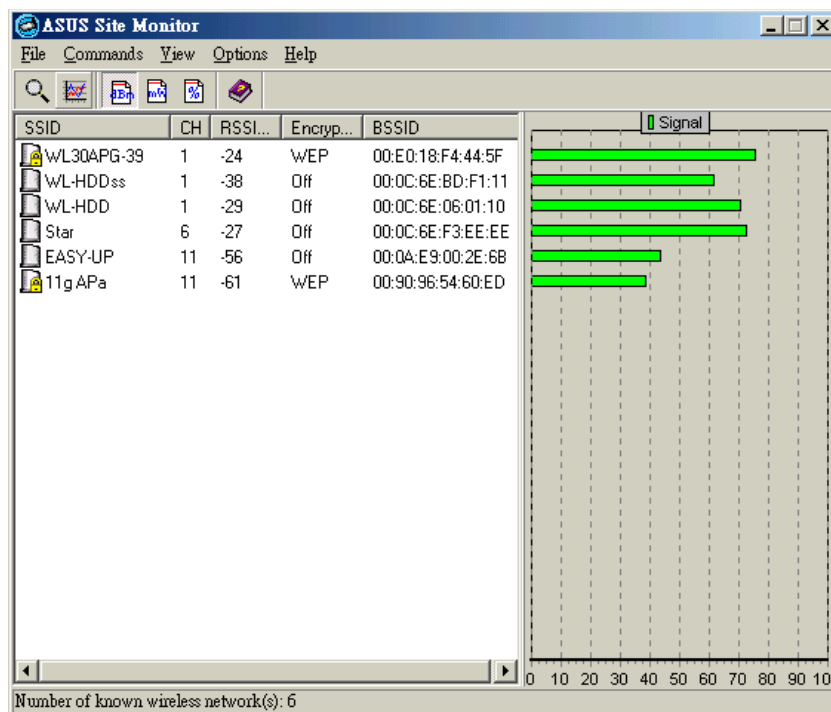
Some Access Points disable their SSID broadcasting to hide themselves from "Site Survey" or "Site Monitor". You may join these APs if you know their SSID.

3.4.3 Monitoring a connection

To monitor a connection:

1. Select the connection from the list.
2. Click Command from the menu bar, then select monitor. You may also press <Ctrl> <M> in your keyboard.

The Monitor window appears.

The following connection parameters are displayed in graphical representation.

SNR. This indicates the quality of communications within the current network. The communication quality is based on signal level and noise level measurements. The higher the SNR, the better the connection quality.

Communication Quality. This indicates the communication quality of the Basic Service Set to which the station is connected.
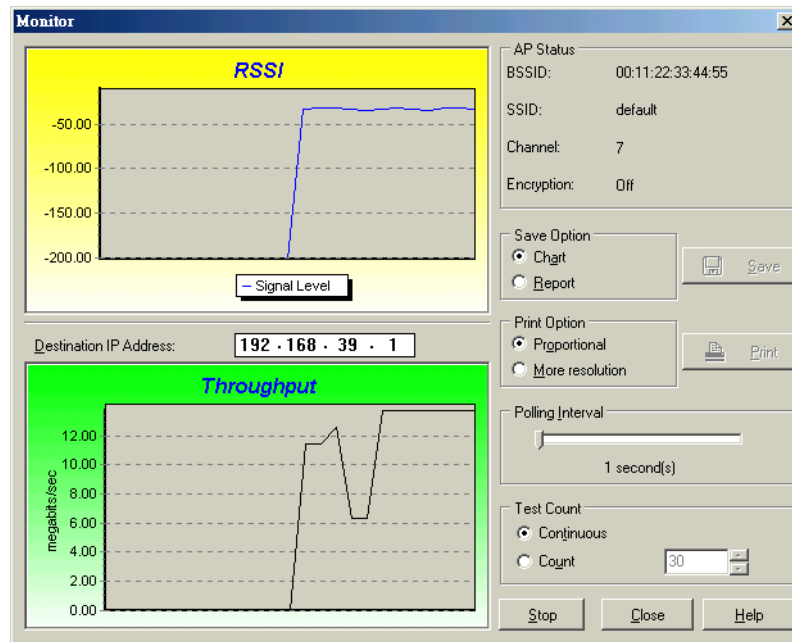
Signal Level. This line specifies the average signal level of the Basic Service Set to which the station is connected.

Noise Level. Specifies the average noise level of the Frequency Channel currently used for connection.

Throughput. The Throughput graph sends a specified number of data packets to the remote host and calculates the average transmission rate in megabytes per second.

During the test, the **Start** button toggles to **Stop**. Click **Start** button to begin the link test. Click the **Stop** button at any time to stop the test.

Chapter 4

This chapter contains a troubleshooting guide for solving common problems you may encounter when using the ASUS USB Wireless LAN Adapter.

Troubleshooting

Troubleshooting

This troubleshooting guide provides answers to some common problems which you may encounter while installing and/or using ASUS Wireless LAN card products. These problems requires simple troubleshooting that you can perform by yourself. Contact the Wireless LAN Technical Support if you encounter problems not mentioned in this section.

Problem	Action

My computer does not recognize the installed ASUS USB Wireless LAN Adapter.	Verify if the ASUS USB Wireless LAN Adapter drivers are properly installed by following these instructions:
	
	1. Open the Control Panel window from the Windows® desktop.
	
	2. Double-click on the **System** icon.
	
	3. *Windows® 98SE/Me users*: Select the **Device Manager** tab.
	
	   Windows® 2000/XP users: Select the **Hardware** tab then click the **Device Manager** button.
	
	4. Click the "+" symbol preceeding the **Network Adapters** item, then check the **ASUS 802.11 Network Adapter** item.
	
	   A yellow exclamation point or a red plus sign preceeding the network adapter means that the device driver is not properly installed. Re-install the device driver following the instructions below.

A yellow exclamation point or a red plus sign appears on the ASUS 802.11b Network Adapter or ASUS 802.11g Network Adapter item.	The device driver is not properly installed. Follow these instructions to uninstall and re-install the driver. 1. Insert the Support CD into the CD-ROM drive. 2. When the ASUS Wireless LAN installation window appears, click "**Uninstall ASUS WLAN Card Utilities/Driver**" option. 3. Restart your computer and repeat the software installation following the instructions contained in this User Guide.

Troubleshooting

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I cannot connect to an Access Point.	• Check if the **Network Type** of the device is set to **Infrastructure** mode. • Check if the device has the same **Service Set Identifier (SSID)** as that of the AP. • Check if the device and the AP have the same **Encryption**. If WEP encryption is enabled, set the same WEP keys for the device and the AP. • Check if the MAC address of the device is added in the AP Authorization Table. Inquire this with your LAN administrator. • There is poor signal reception. Shorten the distance between the device and the access point.
I can connect to an Access Point but I cannot connect to the Internet.	• Check if the device and the AP have the same **Encryption**. If WEP encryption is enabled, set the same WEP keys for the device and the AP. • Make sure the network protocol parameters (IP address, subnet mask, gateway, and DNS) of your computer are correctly set. • Check the proxy settings of the web browser.
I cannot connect to another station with a wireless LAN device.	• Check if the **Network Type** of the device is set to **Ad-hoc** mode. • Check if the device has the same **Service Set Identifier (SSID)** with that of the other station. • There is poor signal reception. Shorten the distance between the device and the station. • Check if the device and the other station have the same **Encryption**. If WEP encryption is enabled, set the same WEP keys for the device and the AP.

Troubleshooting

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I cannot connect to other computers linked via an Access Point or Ad-hoc network.	• Check if the device and the other APs and/or clients have the same **Encryption**. If you enable WEP encryption, you must set the same WEP keys for the device and the other AP/s and/or clients. • Check the TCP/IP settings (IP address, subnet mask, gateway, and DNS) of your computer. • Enable file and printer sharing in each client computer to allow file sharing.
I always have poor link quality and low signal.	Do the following to achieve better link quality and stronger signal: • Keep the device away from microwave ovens and large metal objects to avoid radio interference. • Shorten the distance between the device and the AP/station.
Why do I got the warning "Hi-Speed USB Device Plugged Into Non-Hi-Speed USB Hub" message when I connected the ASUS USB Wireless LAN Adapter to the USB port?	This warning mesage appears when you plug the ASUS USB Wireless LAN Adapter to a USB 1.1 port. • For Windows® XP users, you need to upgrade your OS to Service Pack 1 to convert your USB ports to USB 2.0. • For Windows® 2000 users, you must install Service Pack 4 in order to convert your USB ports into USB 2.0. You can download these service packs from the Windows Update website (windowsupdate.microsoft.com)

Troubleshooting

Problem	Action
When I remove the wireless adapter from my computer running Windows 98SE, my system becomes very slow and stops responding.	• This is a limitation with computers equipped with Intel/NVIDIA USB 2.0 controller and running the newest OrangeWare USB 2.0 driver.