Wireless Network Adapter

User's Manual

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Contents of Package:

- Wireless network Cardbus/PCI adapter
- Manual, Drivers and Utility on CD
- Quick Installation Guide

If any of the above items are missing, please contact your reseller.

Before you begin

You must have at least the following:

- A laptop computer/desktop PC with an available 32-bit Cardbus/PCI slot
- At least a 300MHz processor and 32MB of memory
- Windows 98SE, ME, 2000, XP
- A CD-ROM Drive
- Cardbus/PCI controller properly installed and working in the laptop computer
- An 802.11g or 802.11b Access Point (for infrastructure Mode) or another 802.11g or 802.11b wireless adapter (for Ad-Hoc; Peer-to-Peer networking mode.)

Chapter 1 Introduction

1.1 Welcome

The Wireless Network Adapter is a powerful 32-bit Cardbus/PCI Adapter that installs quickly and easily into PCs. The Adapter can be used in Ad-Hoc mode to connect directly with other cards for peer-to-peer file sharing or in Infrastructure mode to connect with a wireless access point or router for access to the Internet in your office or home network.
The Wireless Cardbus/PCI Adapter connects you with 802.11g networks at up to an incredible 54Mbps! And for added versatility, it can also interoperate with all the up to 11Mbps 802.11b products found in homes, businesses, and public wireless hotspots around the country. And in either mode, your wireless communications are protected by industrial-strength WPA, so your data stays secure.

1.2 About This Guide

This User Manual contains information on how to install and configure your Wireless Broadband Router to get your network started accessing the Internet. It will guide you through the correct configuration steps to get your device up and running.

Note and **Caution** in this manual are highlighted with graphics as below to indicate important information.


Note Contains related information that corresponds to a topic.


Caution Represents essential steps, actions, or messages that should not be ignored.

1.3 Copyright statement

Chapter 2 Hardware Description

The wireless Cardbus/PCI Adapter supports up to 54 Mbps connections. This card is fully compliant with the specifications defined in IEEE802.11g standard. It is designed to complement PCI Local Bus computers and supports Windows 98SE/Me/2000/XP.

2.1 Cardbus adapter

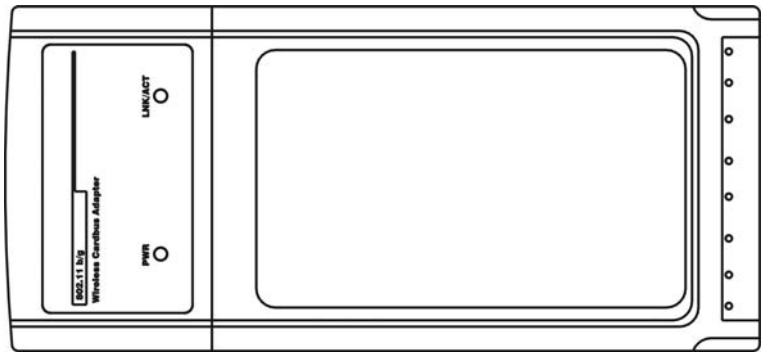

Figure 1-1

LEDs

The two status LED indicators of the Cardbus wireless adapter are described in the following figure and table.

LED	Status	Description
PWR	ON (Green)	Indicates the Adapter is ready
Lnk/Act	ON (Green)	Indicates a valid connection
	Flashing	Indicates the the Adapter is transmitting or receiving data.

2.2 PCI adapter

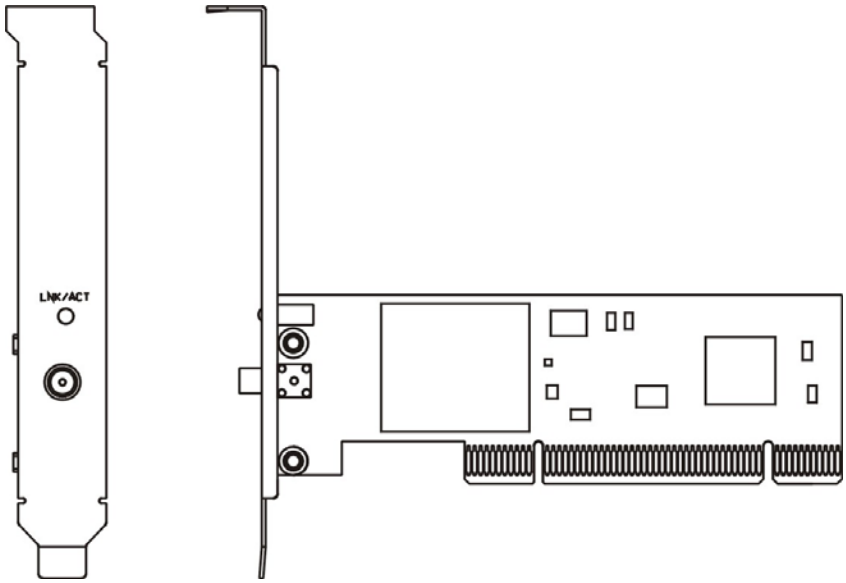

Figure 1-2

LEDs

The Wireless PCI Adapter includes a status LED indicators, as described in the following table.

LED	Status	Description
Lnk/Act	ON (Green)	Indicates a valid connection
	Flashing	Indicates the the Adapter is transmitting

		or receiving data.

Chapter 3 Hardware Installation

3.1 Before you begin

You must have at least the following:

- ✓ A laptop computer/desktop PC with an available 32-bit Cardbus/PCI slot
- ✓ At least a 300MHz processor and 32MB of memory
- ✓ Cardbus/PCI controller properly installed and working in the computer
- ✓ A CD-ROM Drive
- ✓ An 802.11g or 802.11b Access Point (for infrastructure Mode) or another 802.11g or 802.11b wireless adapter (for Ad-Hoc; Peer-to-Peer networking mode.)

3.2 Cardbus Adapter:

- Power on your notebook, let the operating system boot up completely, and log in as needed.
- Hold the dapter with the LOGO facing up and insert it into a Cardbus slot. After a short delay, the Found New Hardware Wizard displays.

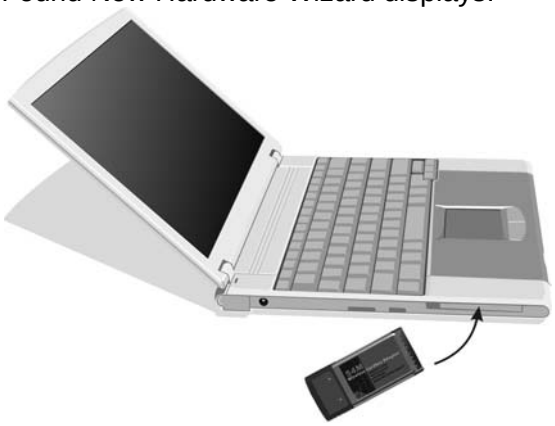

Figure 1-1

3.3 PCI Adapter:

- Turn off your desktop PC.
- Open your PC case and locate an available PCI on the motherboard.
- Slide the PCI Adapter into the PCI slot. Make sure that all of its pins are touching the slot's contacts. You may have to apply a bit of pressure to slide the adapter

all the way in. after the adapter is firmly in place, secure its fastening tab to your PC's chassis with a mounting screw. Then close your PC.

- Attach the external antenna to the adapter's antenna port.
- Power on your desktop PC.

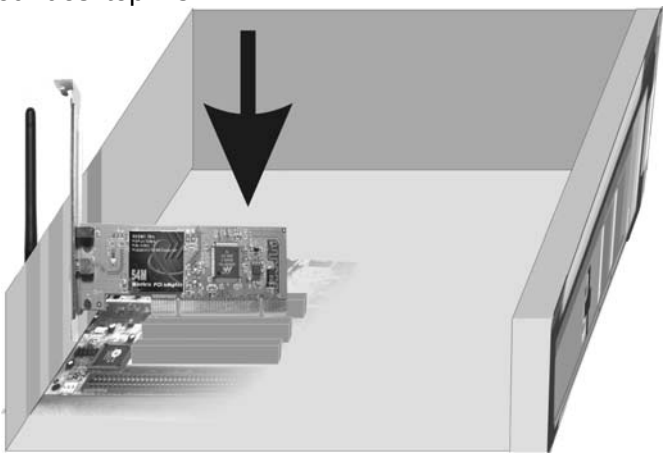

Figure 1-2

You have now completed the hardware installation for the Adapter.

Chapter 4 Install Driver

4.1 Windows 98SE, Me and 2000

Please follow the steps below to install driver:

1. Windows will automatically detect the Adapter. The screen in Figure 2-1 should appear. Then click the **Next** button.

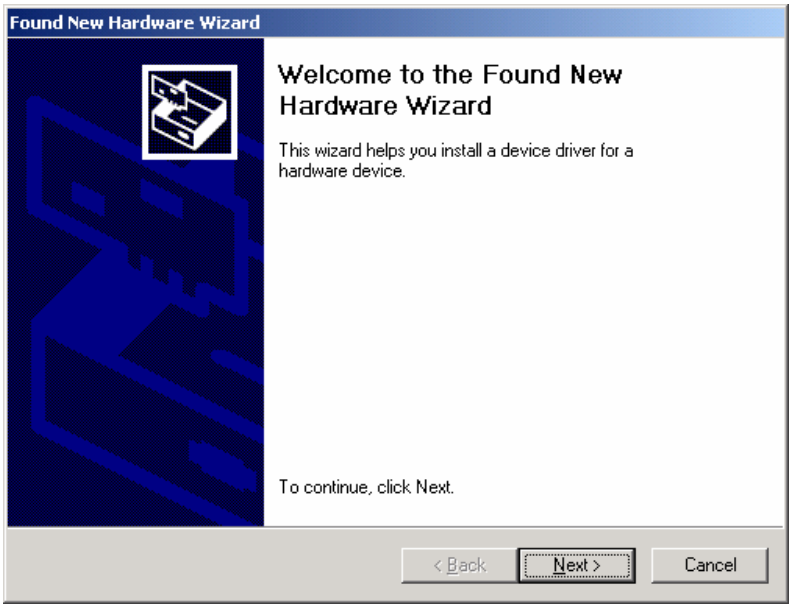

Figure 2-1

2. Click the radio button **Search for suitable driver for my device(recommended).** Then click the **Next** button.

Figure 2-2-

3. Insert the **Driver and Utility CD-ROM** into the CD-ROM drive.
4. Choose the **CD-ROM drives**, Then click the **Next** button.

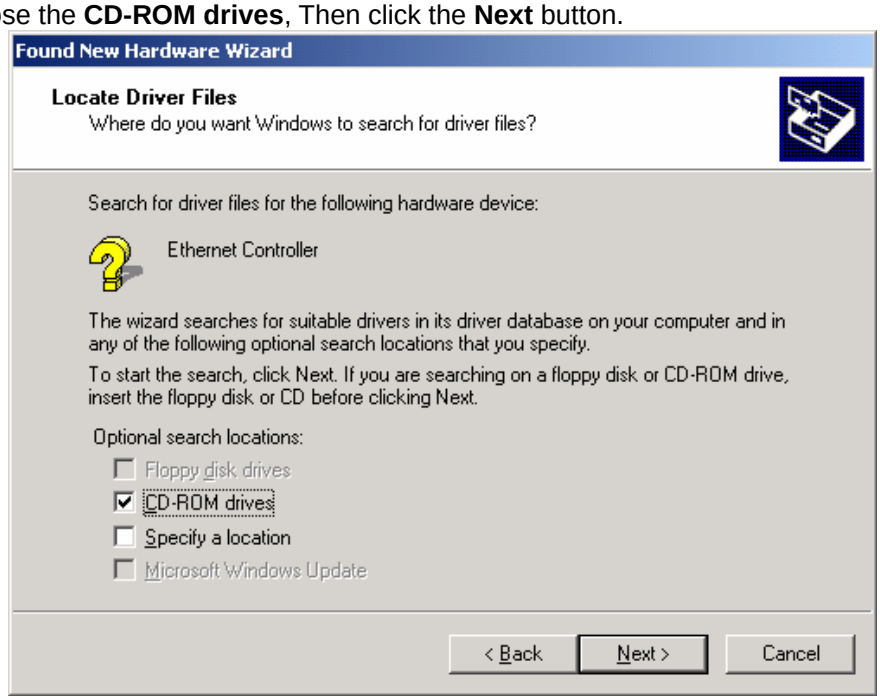

Figure 2-3

5. Windows find the adapter drivers, then click the **Next** button.

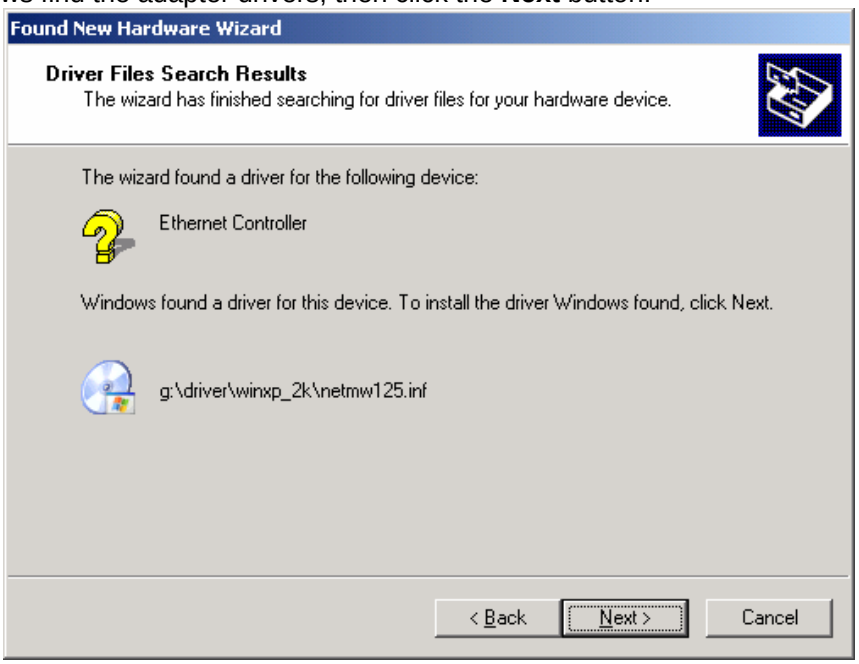

Figure 2-4-

6. click the **Finish** button, You have now completed the driver installation for the adapter.

Figure 2-5

4.2 Windows XP

Please follow the steps below to install your adapter driver:

1. Windows XP will automatically detect the Adapter. The screen in Figure 2-6 should appear. Click the radio button next **install from a list or specific location (Advanced).** Then click the **Next** button.

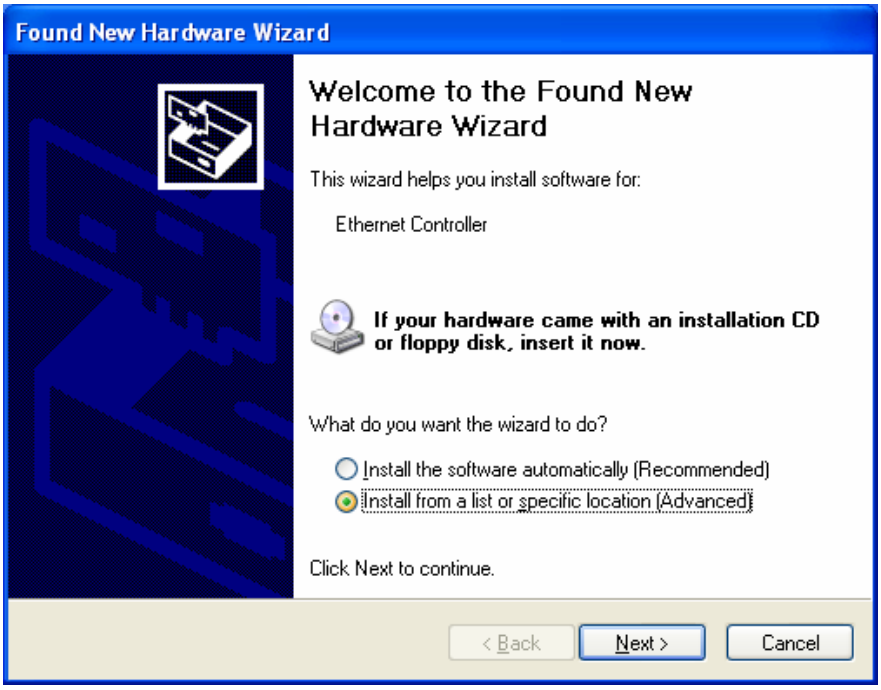

Figure 2-6

2. Insert the **Driver and Utility CD-ROM** into the CD-ROM drive.
3. Choose **Search removable media (floppy, CD-ROM…),** then click the **Next** button.

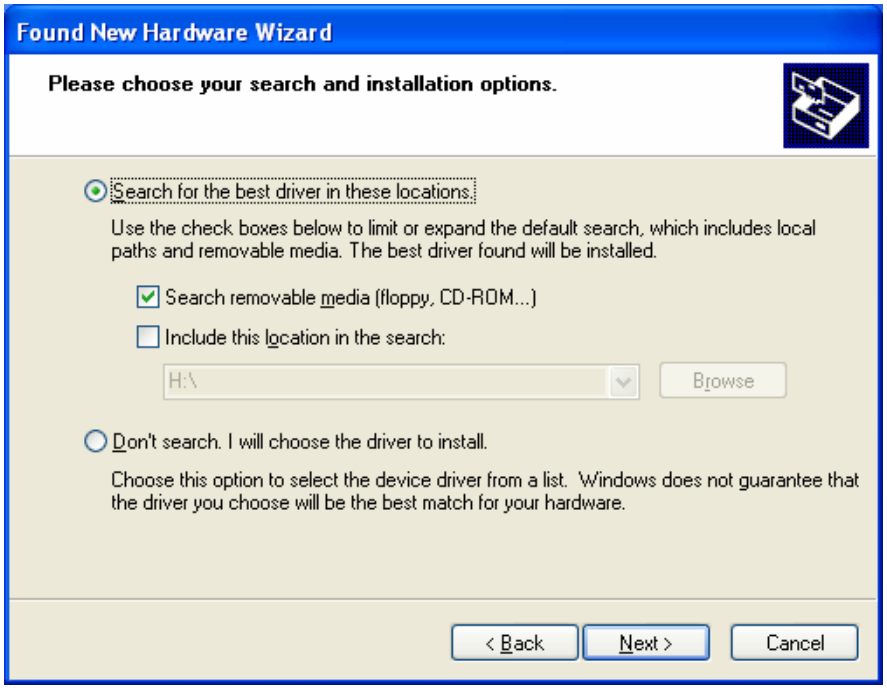

Figure 2-7

4. Windows find the driver from the CD-ROM, then click the **Next** button.

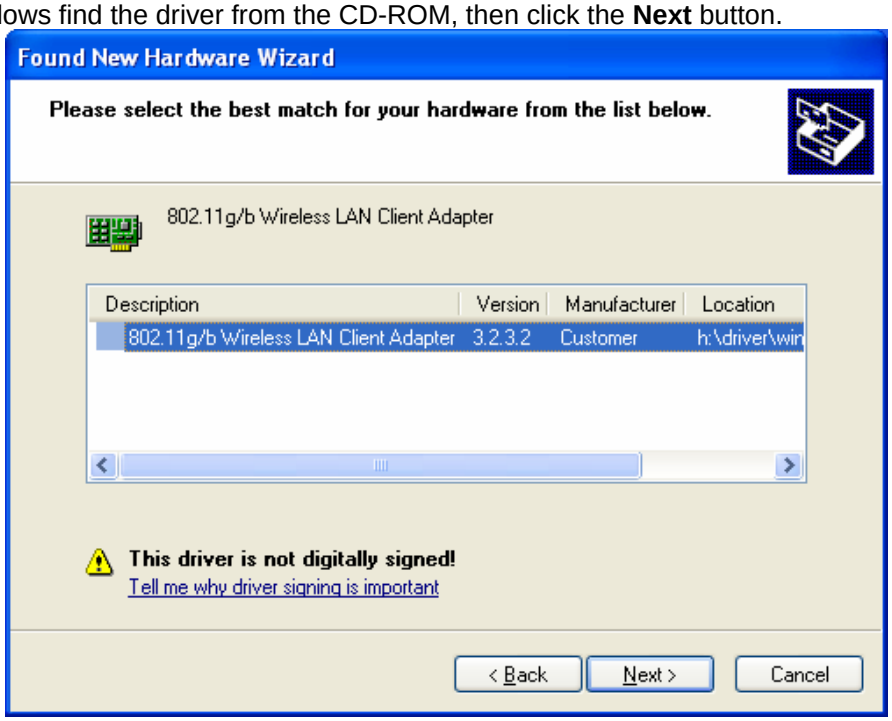

Figure 2-8

5. Then click **Finish.** You have now completed the driver installation for the adapter.

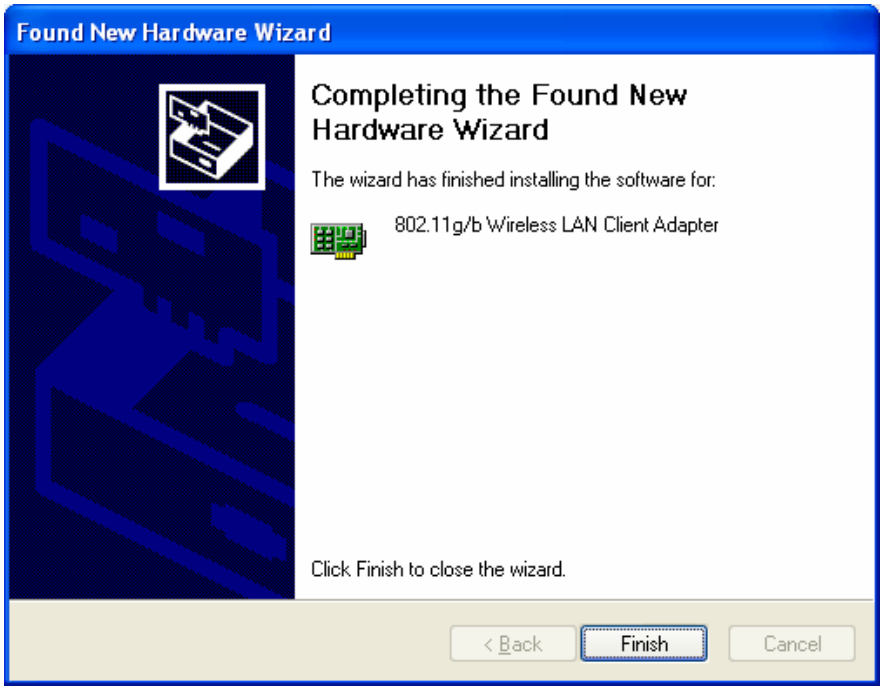

Figure 2-9

Chapter 5 Install Driver Install Utility

1. insert the **Driver and Utility CD-ROM** into the CD-ROM drive.
2. The Wizard should run automatically, and Figure 3-1 should appear. If it dose not, click the **Start** button and choose **Run.** In the field that appears, enter **D:\autorun.exe (**if ''D'' is the letter of your CD-ROM drive**).**

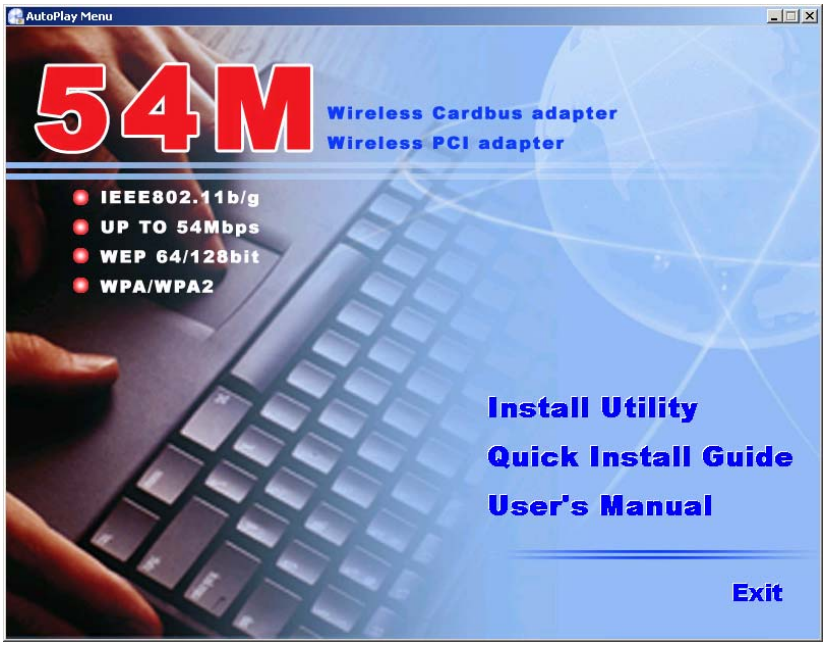

Figure 3-1

3. Click **Install Utility** on the **Wireless Client Configuration Utility** screen.

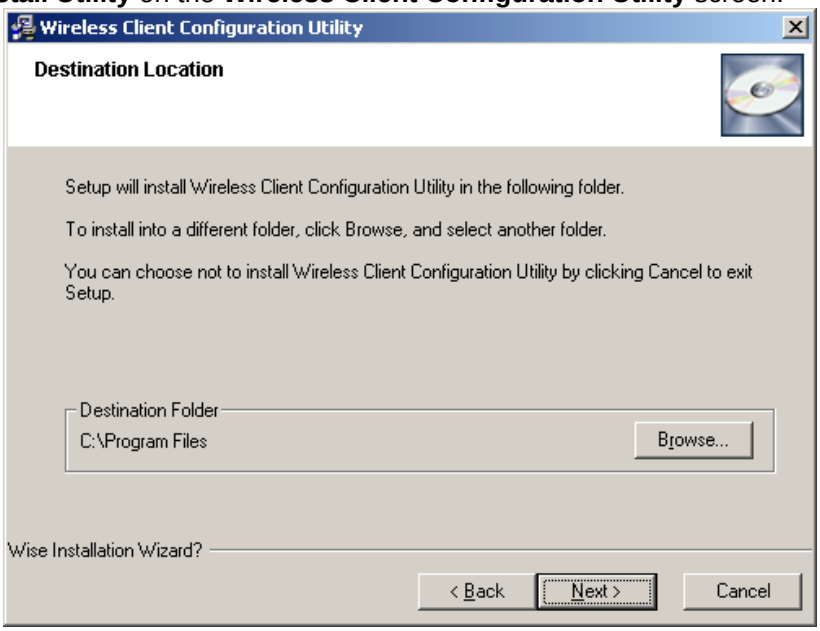

Figure 3-2

4. Follow the Install Shield Wizard steps, and click **Finish** when done.

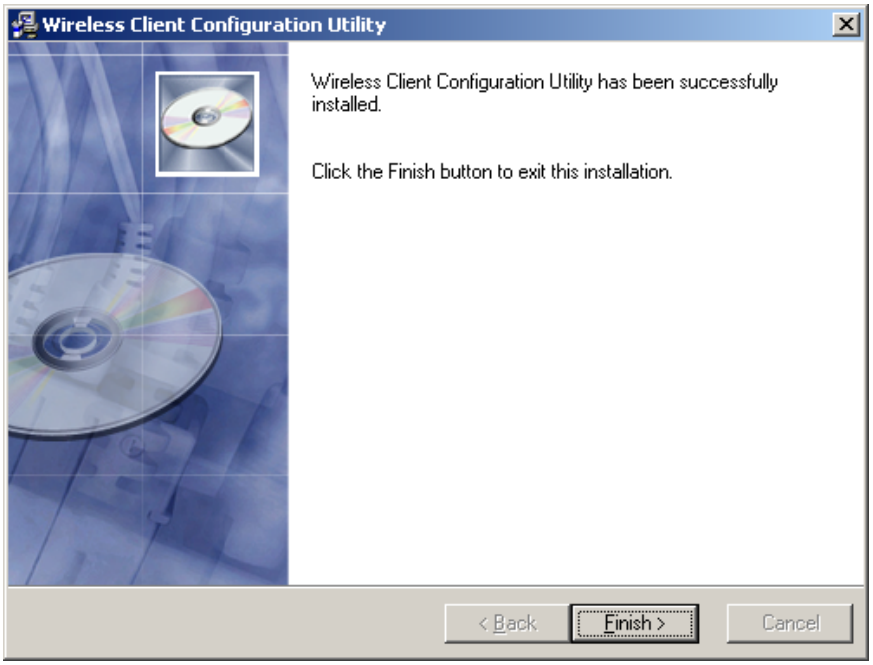

Figure 3-3

Chapter 5 Configuration your wireless adapter

1. After install the Utility **Wireless Client Configuration Utility** icon will appear in your system desktop. Double-click the icon (see Figure 4-1)

Figure 4-1

2. The **Wireless Client Configuration Utility** screen (Figure 4-2) will appear.

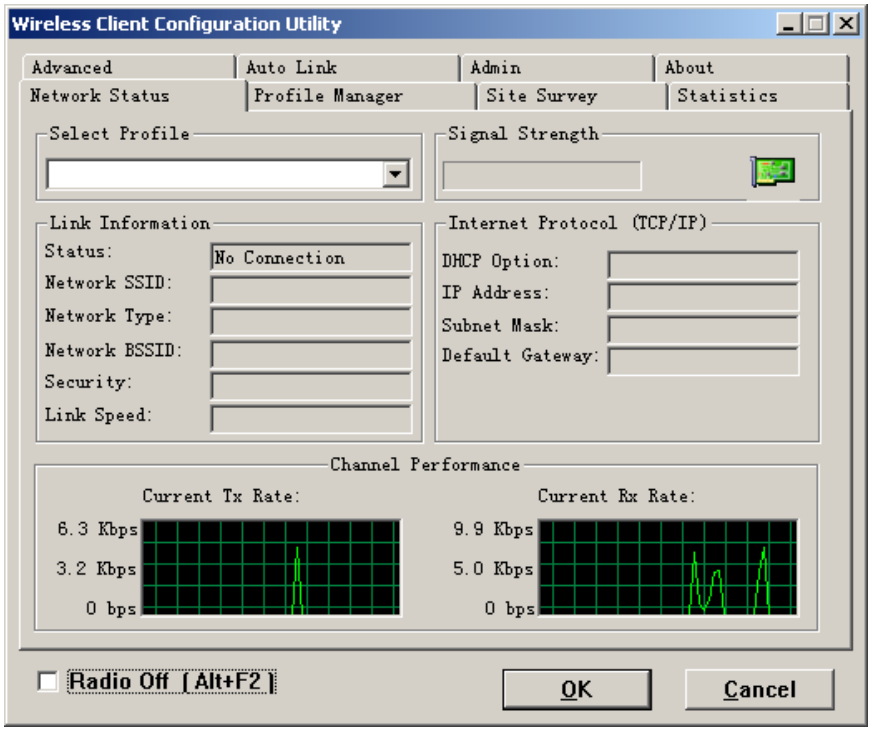

Figure 4-2

3. Click the **Site Survey** tab, then click the **Refresh** button to search for available wireless networks (Figure 4-3)

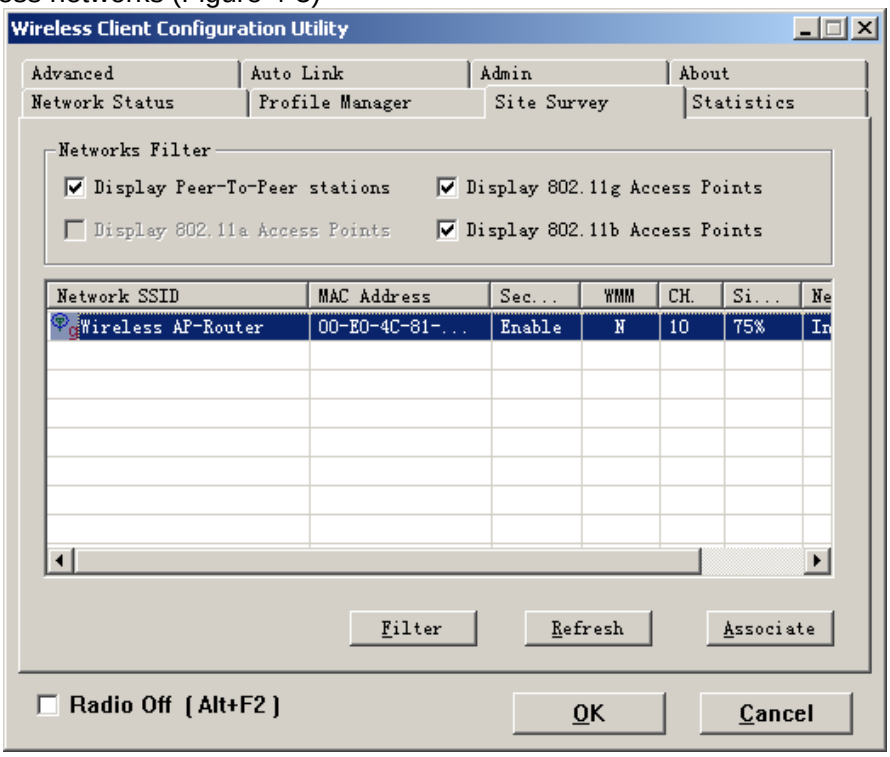

Figure 4-3

4. To connect to one of the networks on the list, select the wireless network, and click **Associate** button.

Chapter 6 Using the Wireless Client Configuration Utility

Use the ***Wireless Client Configuration Utility*** to check the link information, search for available wireless networks, or create profiles that hold different configuration settings. You can double-click the icon on your system desktop start it. Another way to start the ***Configuration Utility*** is to click on ***Start>Programs>Wireless Client Configuration Utility>WirelessCfg.***
If you are using Windows XP, you can use either the Zero Configuration Utility or the ***Wireless Client Configuration***

6.1 Network Status

The ***Network Status*** tab displays signal strength and link information, Internet Protocol (TCP/IP).

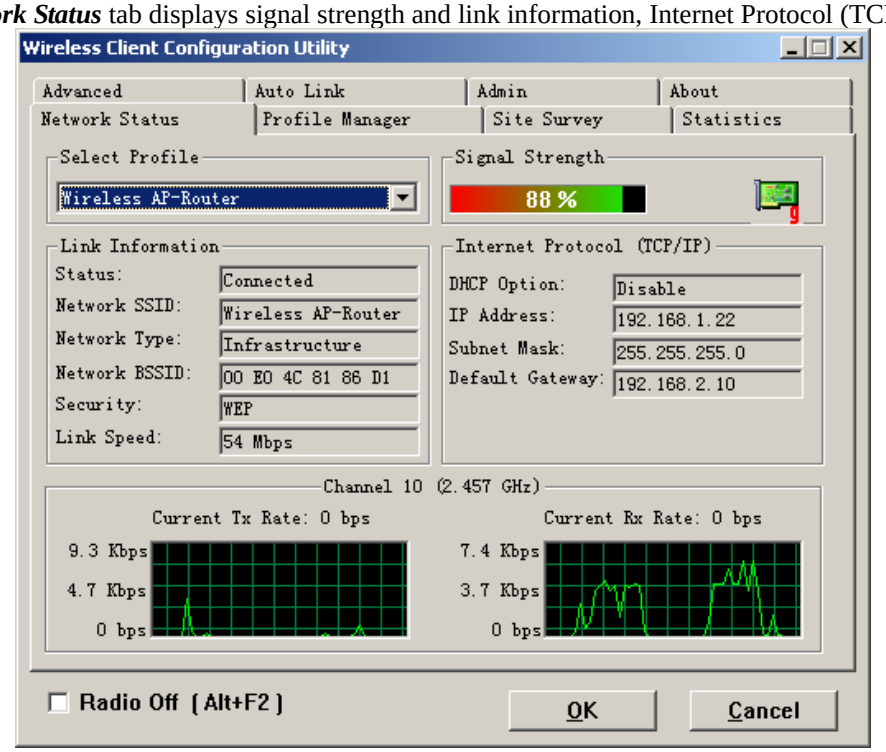

Figure 6-1

1. Link Information

- **Status:** The status of the wireless network connection.
- **Network SSID:** The unique name of the wireless network.
- **Network Type:** The mode of the wireless network currently in use.
- **Network BSSID:** The MAC address of the wireless network's access point.
- **Security:** The status of the encryption security feature.
- **Link Speed:** The data transfer rate of the current connection.
- **Channel:** The channel to which the wireless network devices are set.

2. Internet Protocol (TCP/IP)

- **DHCP Option:** The status of the DHCP client.
- **IP Address:** The IP Address of the Adapter.
- **Subnet Mask:** The Subnet Mask of the Adapter.
- **Default Gateway:** The Default Gateway address of the Adapter.

6.2 Site Survey

The ***Site Survey*** tab (Figure 6-2), displays a list of infrastructure and ad-hoc networks available for connection.

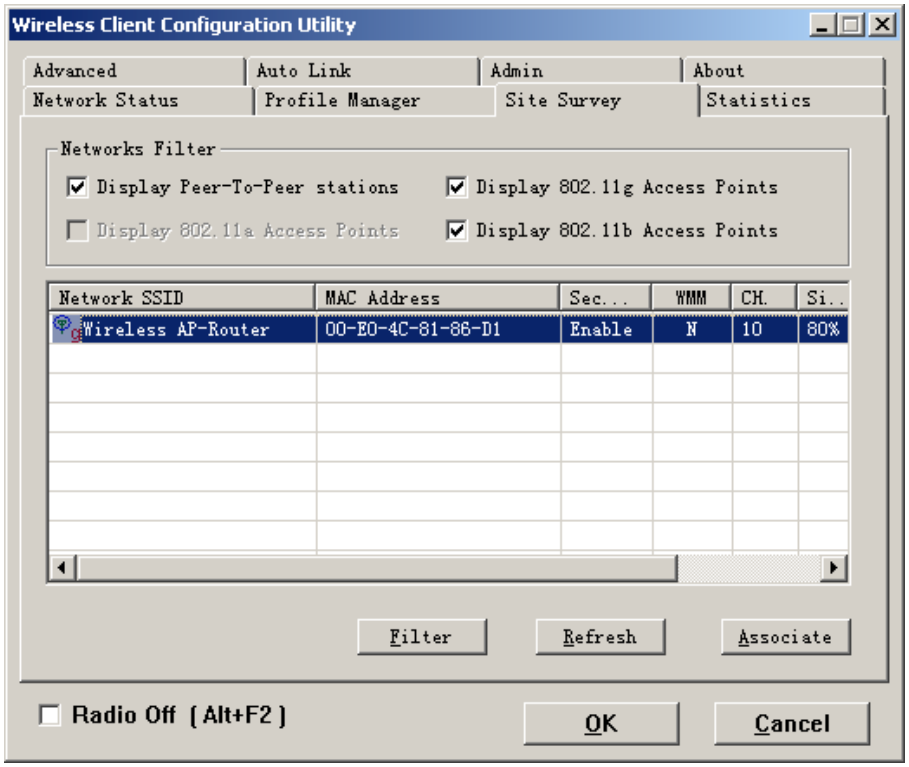

Figure 6-2

The section of the window displays the Available Networks. Highlight the network to which you wish to connect. Click on the ***Associate*** button.

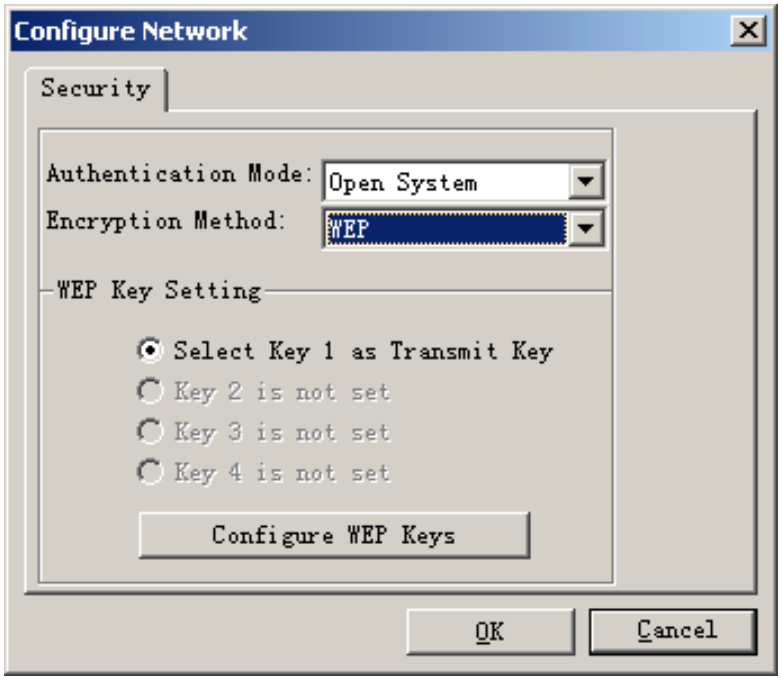

Figure 6-3

Choose the Authorization modes and Encryption modes in the drop-down box. If the wireless network uses a **Passphrase**, enter the **Passphrase** in the **Passphrase** field. If the wireless network uses a **WEP** key, enter the **WEP** key in the Key field.

Click the **OK** button to complete the network connection and return to the ***Site Survey*** screen, or click the **Cancel** button the cancel the network connection and return to the ***Site Survey*** screen.

6.3 Admin

The ***Admin*** tab screen (Figure 6-4) lets you import or export profiles.

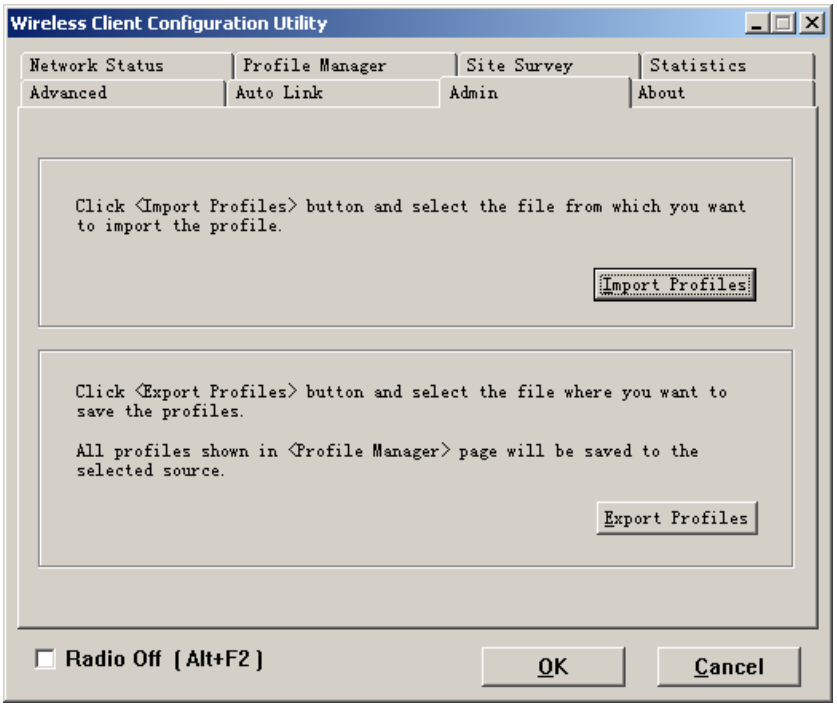

Figure 6-4

Export Profile

To save the profile(s) in a different location, click the **Export Profile** button. On the screen that appear (Figure 6-5), direct Windows to the appropriate folder and click the **OK** button.

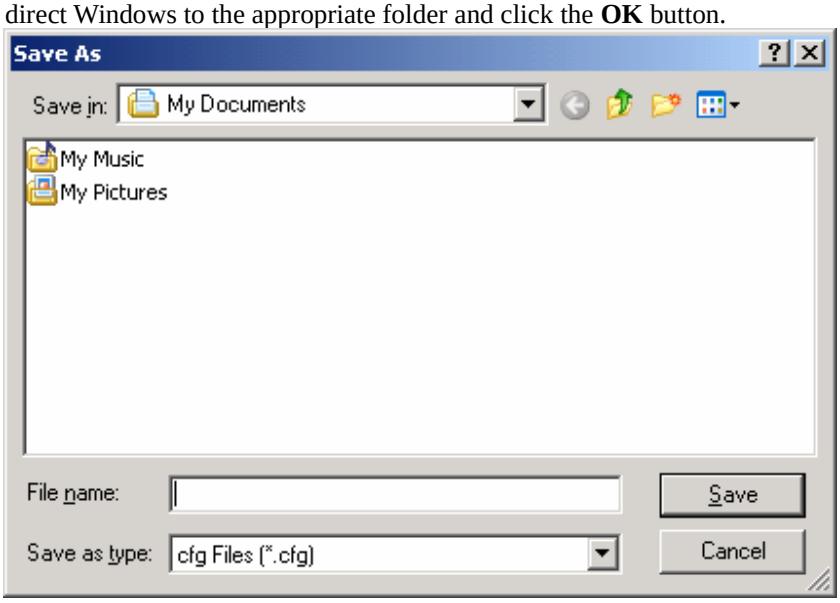

Figure 6-5

Import profile

Click the **Import Profile** button to import a profile that has been saved in another location. From the screen that appears (shown in Figure 6-6), select the appropriate file, and click the **Open** button.

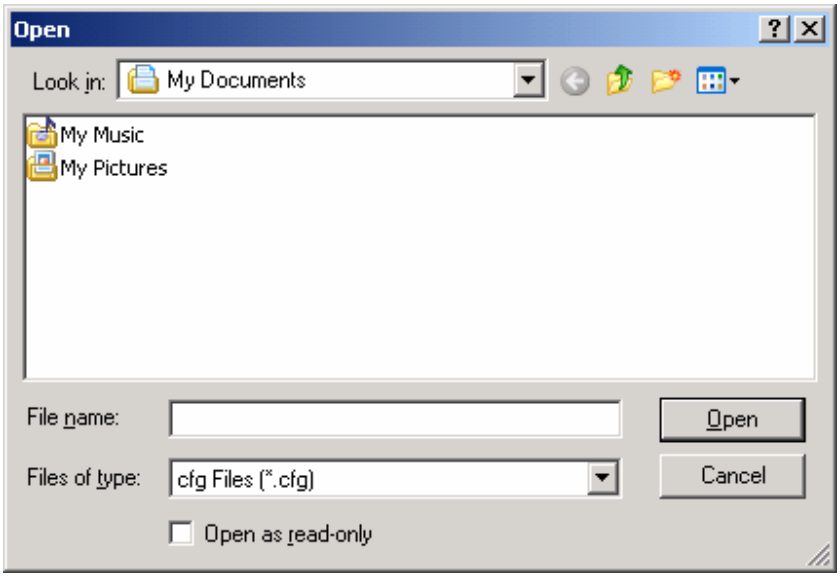

Figure 6-6

6.4 Profile Manager

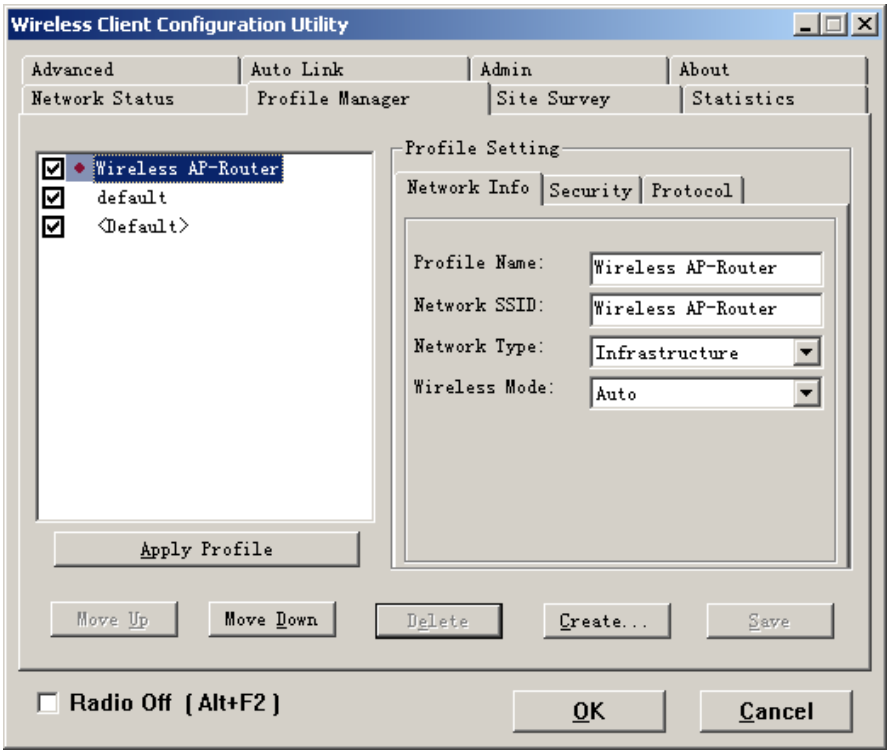

Figure 6-7

On the Profile Manager tab, shown in Figure 6-7, click the Create button to create a new profile.

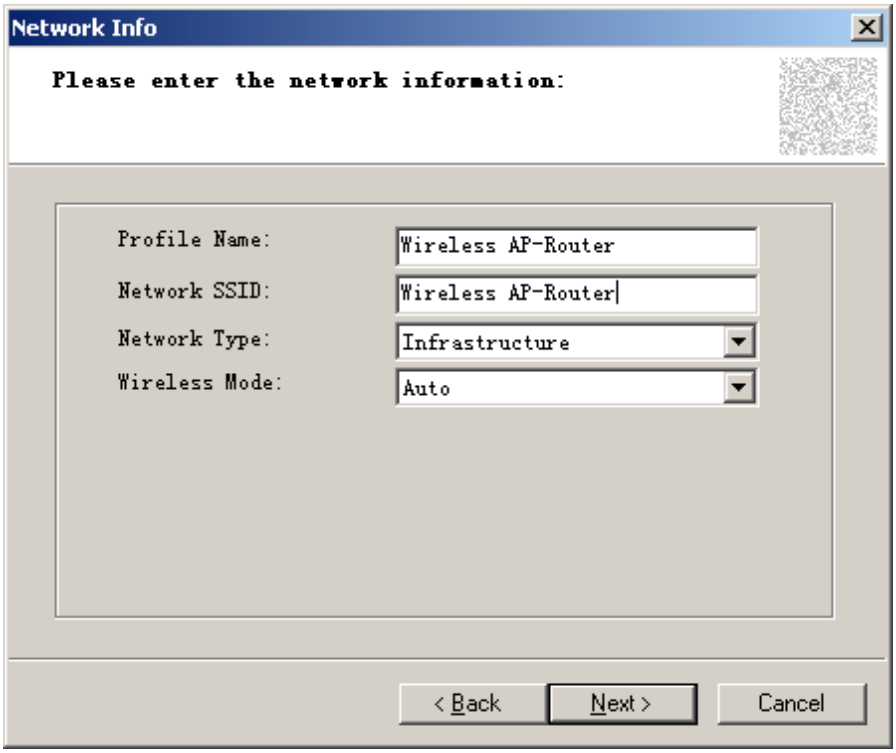

Figure 6-8

When the ***Network Info*** screen appears (Figure 6-8), enter a name for the new profile. Enter the Network SSID. Choose the **Infrastructure Mode** in the Network Type drop-down box if you want your wireless computers to communicate with computers on your wired network via a wireless access point. Choose the **Ad-Hoc** Mode in the Network Type drop-down box if you want multiple wireless computers to communicate directly with each other. Click the Next button to continue or the Back button to return to the previous screen.

Ad-Hoc Mode

If you choose **Ad-Hoc Mode**, select the Wireless Mode from the drop-down menu. Then, select the correct operating channel for your network form the **Prefer Channel** drop-down menu. Click the **Next** button.

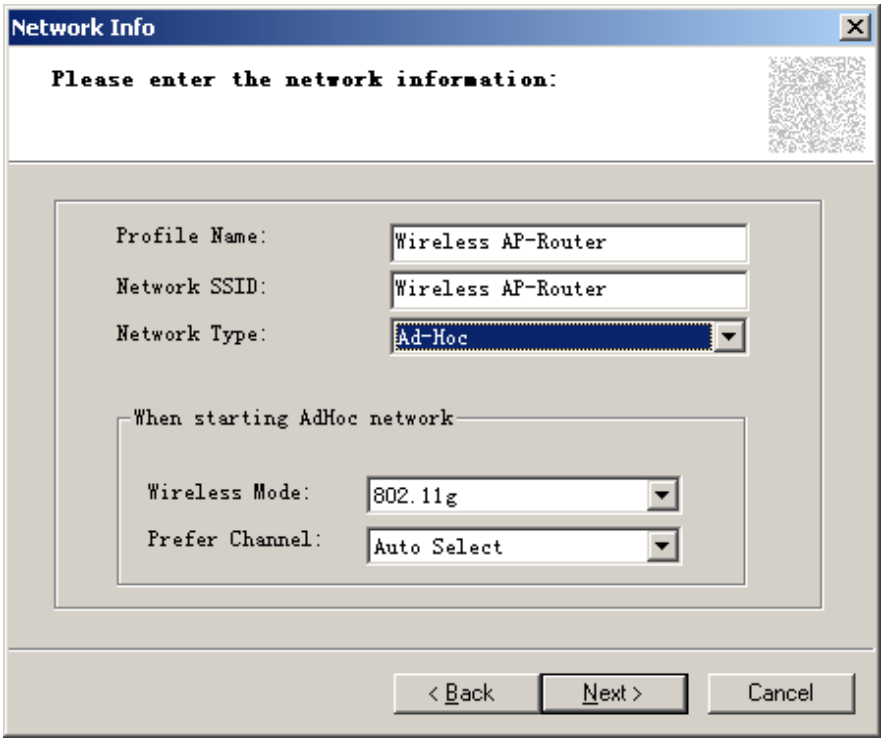

Figure 6-9

Infrastructure Mode

If you choose Infrastructure Mode, click the Next button.

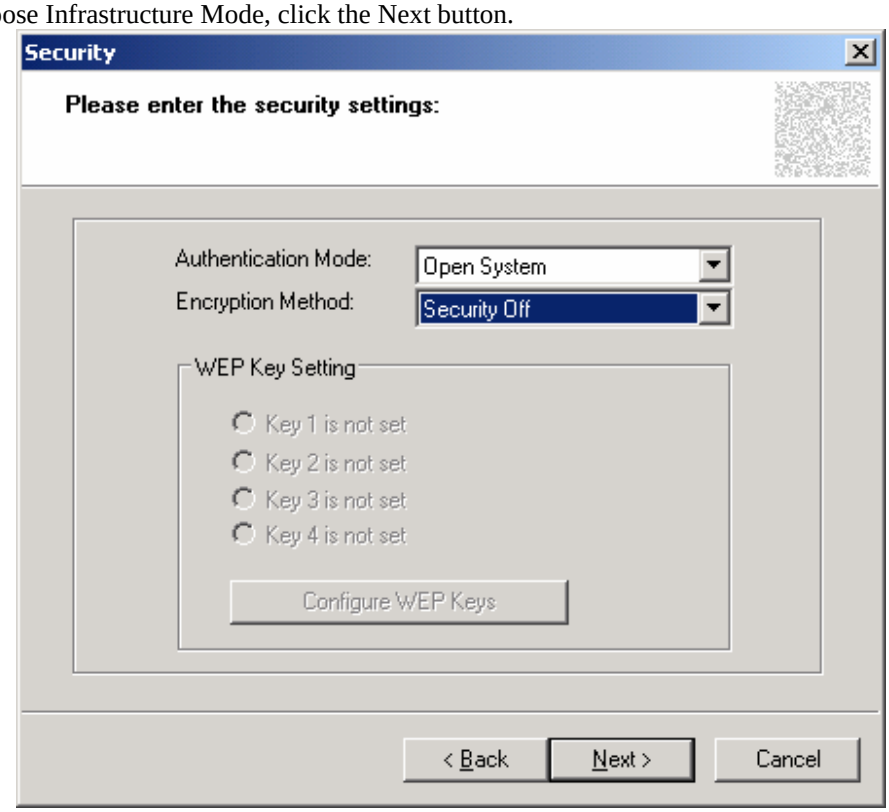

Figure 6-10

The ***Security*** screen (Figure 6-10) will appear. Choose the **Authentication Mode** and **Encryption Method** from the drop-down menu. To use WEP encryption (recommended to increase network security), select 64 bits or 128 bits WEP from the drop-down menu, and enter either a Passphrase or WEP key. Then click **Next** button.

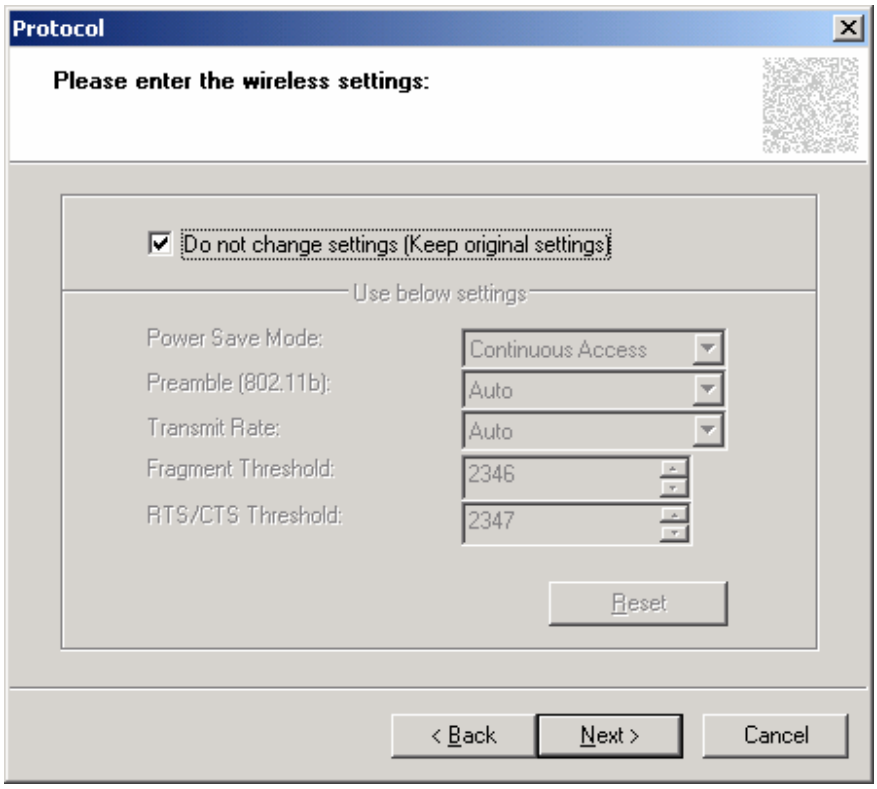

Figure 6-11

The ***Protocol*** screen will appear. Select **Do not change settings**, then, click **Next** button.

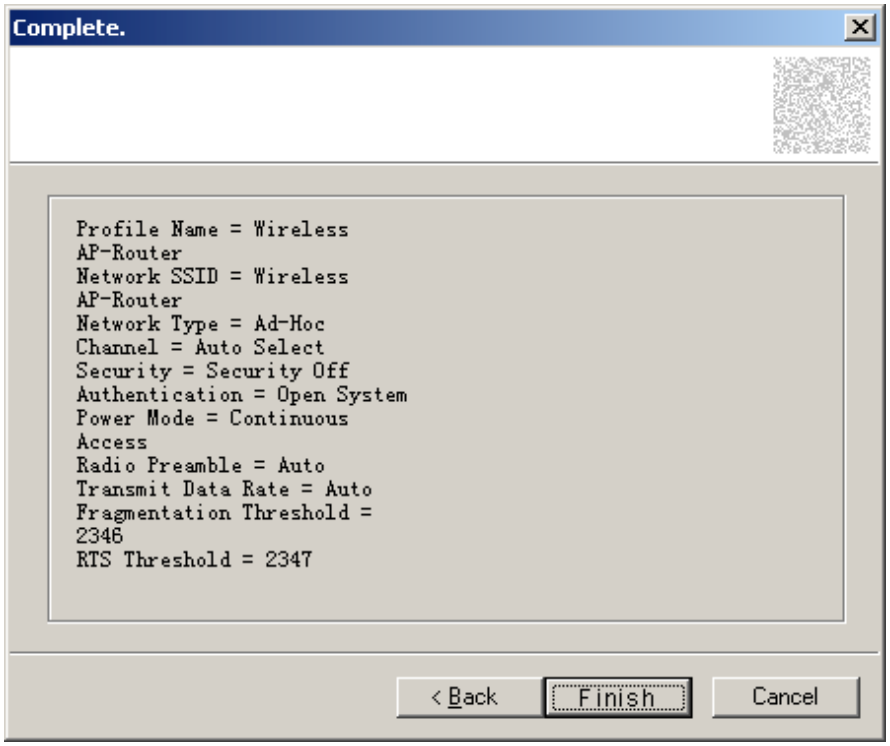

Figure 6-12

The ***Complete*** Screen will appear. Click **Finish** button.
You have successfully created a connection profile.

Chapter 7 Troubleshooting

This chapter provides solutions to problems that may occur during the installation and operation of the Wireless Cardbus/PCI Adapter. Read the descriptions below to solve your problems.

1. **The Wireless Cardbus/PCI Adapter does not work properly.**
   - Reinsert the Wireless Cardbus/PCI Adapter into your PC's PCI slot/Cardbus slot.
   - Right click on My Computer and select Properties. Select the device manager and click on the Network Adapter. You will find the Adapter if it is installed successfully. If you see the yellow exclamation mark, the resources are conflicting. You will see the status of the Adapter. If there is a yellow question mark, please check the following:
   - Make sure that your PC has a free IRQ (Interrupt ReQuest, a hardware interrupt on a PC.)
   - Make sure that you have inserted the right adapter and installed the proper driver. If the Adapter does not function after attempting the above steps, remove the adapter and do the following:
   - Uninstall the driver software from your PC.
   - Restart your PC and repeat the hardware and software installation as specified in this User Guide.

2. **I cannot communicate with the other computers linked via Ethernet in the Infrastructure configuration.**
   - Make sure that the PC to which the Adapter is associated is powered on.
   - Make sure that your Adapter is configured on the same channel and with the same security options as with the other computers in the Infrastructure configuration.

3. **What should I do when the computer with the Adapter installed is unable to connect to the wireless network and/or the Internet?**
   - Check that the LED indicators for the broadband modem are indicating normal activity. If not, there may be a problem with the broadband connection.
   - Check that the LED indicators on the wireless router are functioning properly. If not, check that the AC power and Ethernet cables are firmly connected.
   - Check that the IP address, subnet mask, gateway, and DNS settings are correctly entered for the network.
   - In **Infrastructure** mode, make sure the same **Service Set Identifier (SSID)** is specified on the settings for the wireless clients and access points.
   - In **Ad-Hoc** mode, both wireless clients will need to have the same **SSID**. Please note that it might be necessary to set up one client to establish a **BSS (Basic Service Set)** and wait briefly before setting up other clients. This prevents several clients from trying to establish a **BSS** at the same time, which can result in multiple singular **BSSs** being established, rather than a single **BSS** with multiple clients associated to it.
   - Check that the **Network Connection** for the wireless client is configured properly.
   - If **Security** is enabled, make sure that the correct encryption keys are entered on both the Adapter and the access point.

APPENDIX A Specifications

Standards: IEEE 802.11g, IEEE 802.11b
Modulation: 802.11b: CCK (11 Mbps), DQPSK (2 Mbps), DBPSK (1 Mbps); 802.11g: OFDM
Channels:
11 Channels (USA)
13 Channels (Europe)
14 Channels (Japan)
Network Protocol: TCP/IP, IPX, NDIS 4, NDIS 5, NDIS 5.1, NetBEUI
Interface: Cardbus/PCI
Transmit Power: 15 dBm
Sensitivity: -80 dBm
LED: PWR, LNK/ACT
WEP Key Bits: 64-Bit and 128-Bit
Dimensions: Cardbus: 118.3×5×54.5mm
PCI: 120×40mm (Non-Bracket)
Unit Weight: Cardbus: 55g
PCI: 50g
Power: Cardbus: 3.3V
PCI: 5V

Certifications: FCC CE
Operating Temp.: 0ºC to 40ºC
Storage Temp.: -20ºC to 70º C
Operating Humidity: 10% to 85%, Non-Condensing
Storage Humidity: 5% to 90%, Non-Condensing