High-Speed Wireless

Cardbus Adapter

User’s Manual

Version: 1.1

Table of Contents

1 INTRODUCTION..... 4
1.1 FEATURES & BENEFITS..... 4
1.2 PACKAGE CONTENTS..... 4
1.3 PC CARD DESCRIPTION..... 5
1.4 SYSTEM REQUIREMENTS 5
1.5 APPLICATIONS..... 5
1.6 NETWORK CONFIGURATION..... 6
2 INSTALL DRIVERS & CLIENT UTILITY 8
2.1 BEFORE YOU BEGIN 8
2.2 INSTALLING THE PC CARD DRIVERS 8
3 USING THE CLIENT UTILITY..... 14
3.1 CURRENT STATUS 15
3.1.1 Advanced Status 15
3.2 PROFILE MANAGEMENT 16
3.2.1 Available Networks 16
3.2.2 New Profile 17
3.2.2.1 General 18
3.2.2.2 Security 18
3.2.2.2.1 None..... 19
3.2.2.2.2 WPA & 802.1x..... 20
3.2.2.2.2.1 WPA & 802.1x – TLS, TTLS..... 20
3.2.2.2.2.2 WPA & 802.1x – PEAP, LEAP.....21
3.2.2.2.3 WPA –PSK..... 22
3.2.2.2.5 Pre-Shared Key..... 27
3.2.2.3 Advanced..... 28
3.2.2.3.1 Access Point 28
3.2.2.3.2 Ad Hoc..... 29
3.3 DIAGNOSTICS 30
3.3.1 Advanced Statistics 30
3.3.2 Driver Information 31
4. UNINSTALLATION 36
APPENDIX A – SPECIFICATIONS 39
APPENDIX B – FCC INTERFERENCE STATEMENT.....41

Revision History

Version	Date	Notes
1.0	Jun. 16, 2004	Initial Version
1.1	Oct. 2, 2004	Modification

1 Introduction

The High-Speed Wireless Cardbus Adapter is the most convenient way to let you put a desktop/notebook computer almost anywhere without the hassle of running network cables. Now you don' t need to suffer from drilling holes and exposed cables. Once you are connected, you can do anything, just like the wired network. The High-Speed Wireless Cardbus Adapter operates seamlessly in 2.4GHz frequency spectrum supporting the 802.11b (11Mbps) and the 802.11g (54Mbps) wireless standards. It's the best way to add wireless capability to your existing wired network, or add bandwidth to your wireless installation.

To protect your wireless connectivity, the High-Speed Wireless Cardbus Adapter can encrypt all wireless transmissions through 64/128/152-bit WEP data encryption. With the High-Speed Wireless Cardbus Adapter, you will experience the best wireless connectivity available.

1.1 Features & Benefits

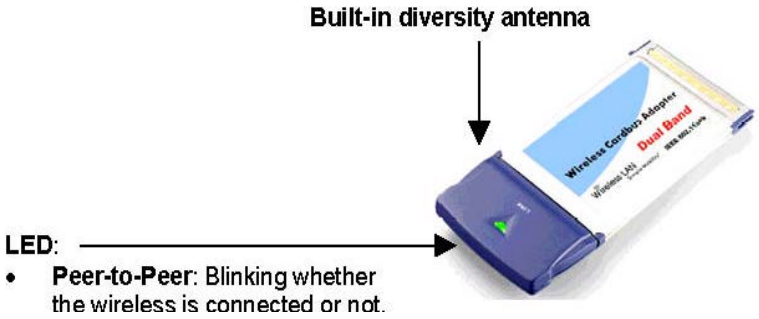
Features	Benefits
High-speed data rate up to 54 Mbps	Capable of handling heavy data payloads such as MPEG video streaming.
Up to 152-bit WEP data encryption and TKIP	Powerful data security.
IEEE 802.1x client support (optional)	Enhances authentication and security.
Multi-country roaming (802.11d) support	Automatically adjusts regulatory domain to operate in different countries.
Advanced power management	Low power consumption in power saving mode.
TPC (Transmission Power Control) support	TPC offers flexibility to adjust RF output power.

1.2 Package Contents

One PC Card
One Installation CD
One Quick Installation Guide

1.3 PC Card Descriptions

The PC card is a standard PC card that fits into any PCMCIA card Type II slot. The PC card has a LED indicator and an integrated built-in diversity antenna



. • **Access Point**: Sold green when wireless is connected.

. • **OFF**: No wireless activity.

1.4 System Requirements

The following are the minimum system requirements in order to use the PC card.

. • PC/AT compatible computer with a PCMCIA Type II slot.
. • Windows 98SE/ME/ /2000/XP operating system.
. • 300 MHz or higher processor
. • 32 MB or greater memory

1.5 Applications

The wireless LAN products are easy to install and highly efficient. The following list describes some of the many applications made possible through the power and flexibility of wireless LANs:

a) Difficult-to-wire environments

There are many situations where wires cannot be laid easily. Historic buildings, older buildings, open areas and across busy streets make the installation of LANs either impossible or very expensive.

b) Temporary workgroups

Consider situations in parks, athletic arenas, exhibition centers, disaster-recovery, temporary offices and construction sites where one wants a temporary WLAN established and removed.

c) The ability to access real-time information

Doctors/nurses, point-of-sale employees, and warehouse workers can access real-time information while dealing with patients, serving customers and processing information.

d) Frequently changed environments

Show rooms, meeting rooms, retail stores, and manufacturing sites where frequently rearrange the workplace.

e) Small Office and Home Office (SOHO) networks

SOHO users need a cost-effective, easy and quick installation of a small network.

f) Wireless extensions to Ethernet networks

Network managers in dynamic environments can minimize the overhead caused by moves, extensions to networks, and other changes with wireless LANs.

g) Wired LAN backup

Network managers implement wireless LANs to provide backup for mission-critical applications running on wired networks.

h) Training/Educational facilities

Training sites at corporations and students at universities use wireless connectivity to ease access to information, information exchanges, and learning.

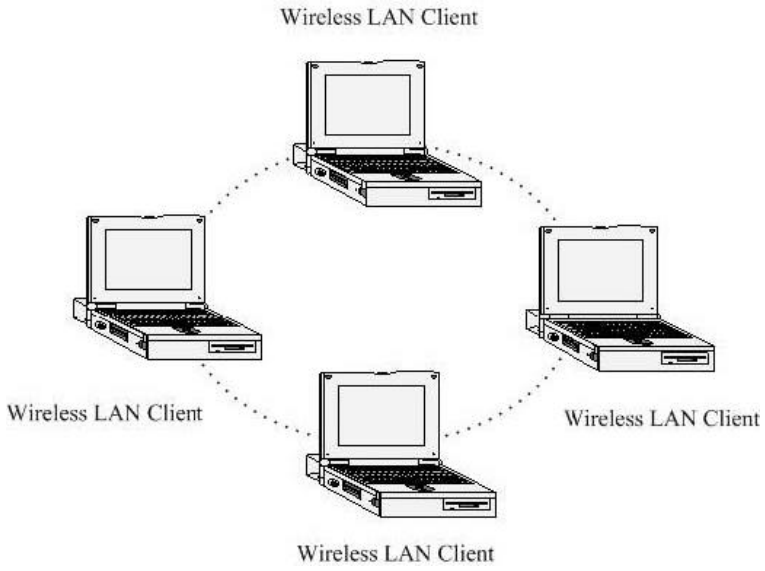
1.6 Network Configuration

To better understand how the wireless LAN products work together to create a wireless network, it might be helpful to depict a few of the possible wireless LAN PC card network configurations. The wireless LAN products can be configured as:

a) Ad-hoc (or peer-to-peer) for departmental or SOHO LANs. b) Infrastructure for enterprise LANs.

a) Ad-Hoc (peer-to-peer) Mode

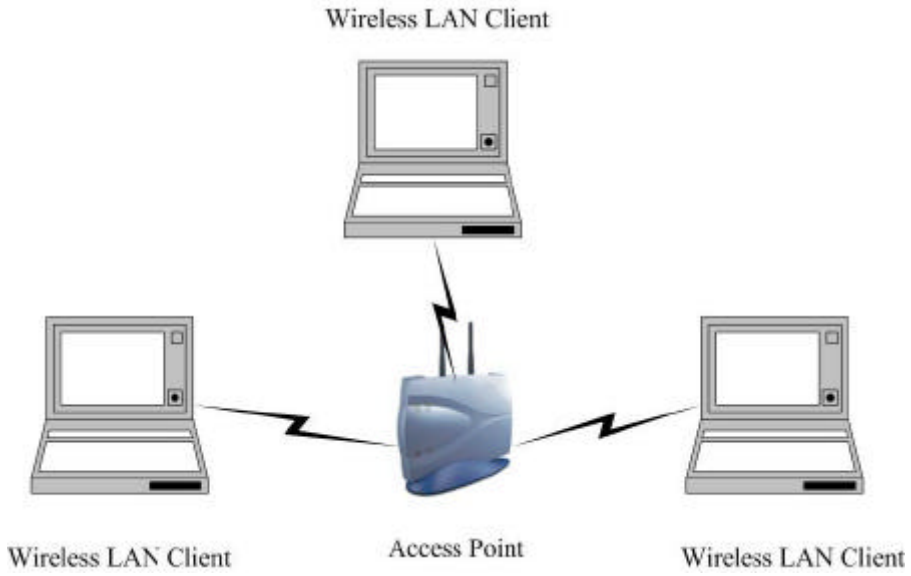
This is the simplest network configuration with several computers equipped with the PC Cards that form a wireless network whenever they are within range of one another. In ad-hoc mode, each client is peer-to-peer, would only have access to the resources of the other client and does not require an access point. This is the easiest and least expensive way for the SOHO to set up a wireless network. The image below depicts a network in ad-hoc mode.



b) Infrastructure Mode

The infrastructure mode requires the use of an access point (AP). In this mode, all wireless communication between two computers has to be via the AP. It doesn't matter if the AP is stand-alone or wired to an Ethernet network. If used in stand-alone, the AP can extend the range of independent wireless LANs by acting as a repeater, which effectively doubles the distance between wireless stations. The image below

depicts a network in infrastructure mode.



2 Install Drivers & Client Utility

This chapter describes how to install the drivers and client utility in Windows 98/ME/2000/XP.

2.1 Before You Begin

Before installing the new drivers into your PC, you need to remove all of the Wireless LAN PC card drivers that you have installed.

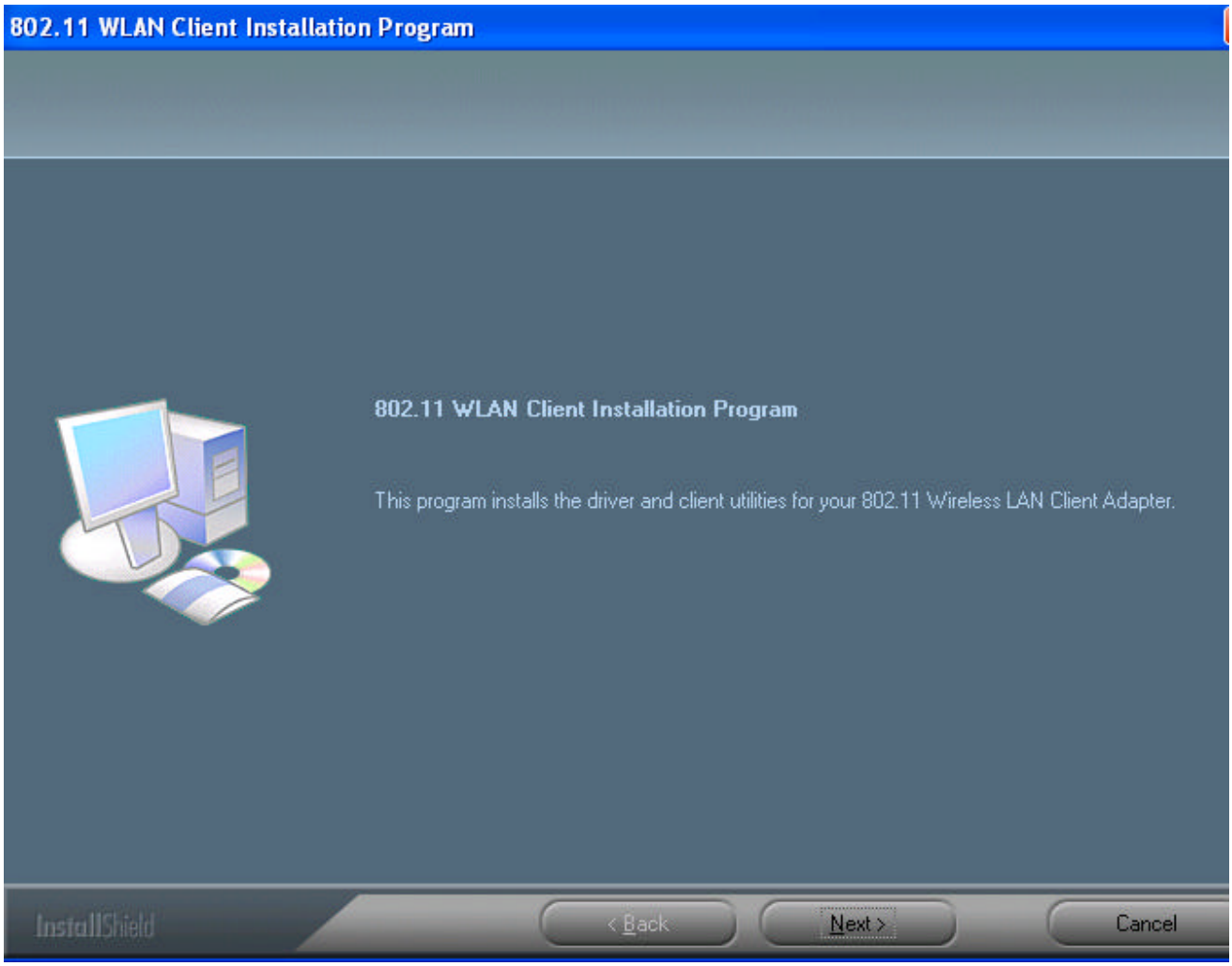
During the installation, Windows 98SE/ME/2000/XP may need to copy systems files from its installation CD. Therefore, you may need a copy of the Windows installation CD at hand before installing the drivers. On many systems, instead of a CD, the necessary installation files are archived on the hard disk in C:\WINDOWS \OPTIONS\CABS directory.

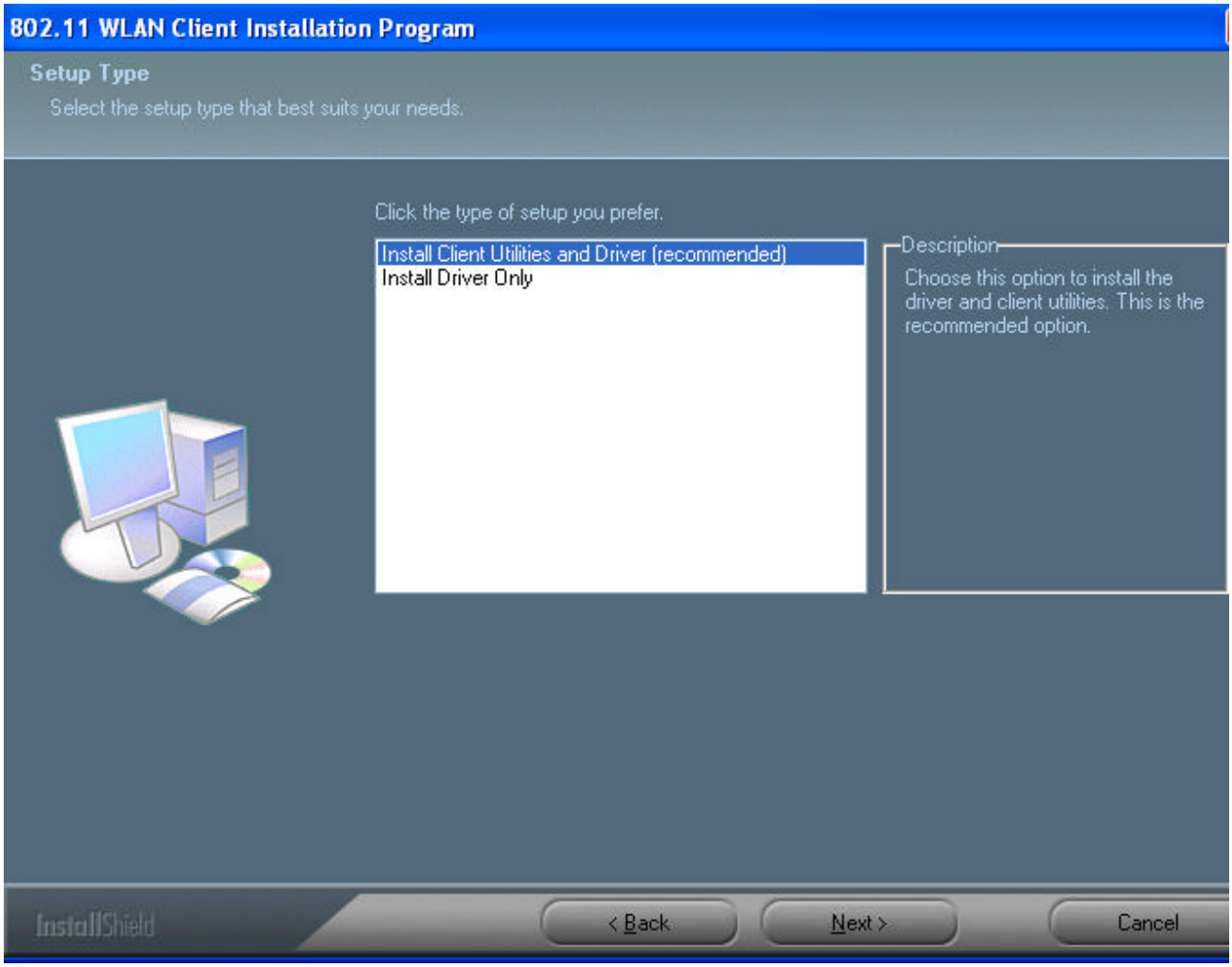
2.2 Installing the PC Card Drivers

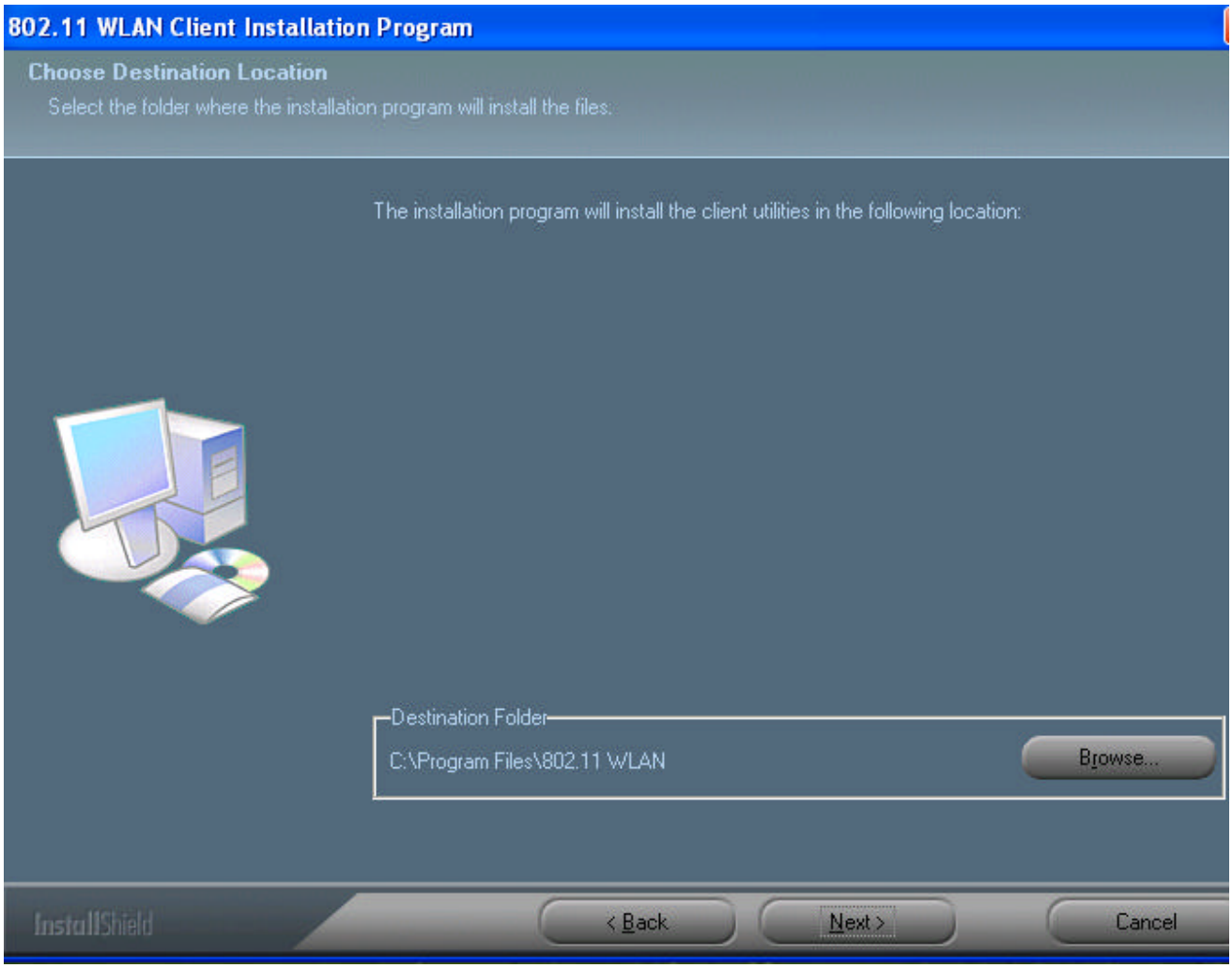
Follow the steps below in order to install the PC card drivers:

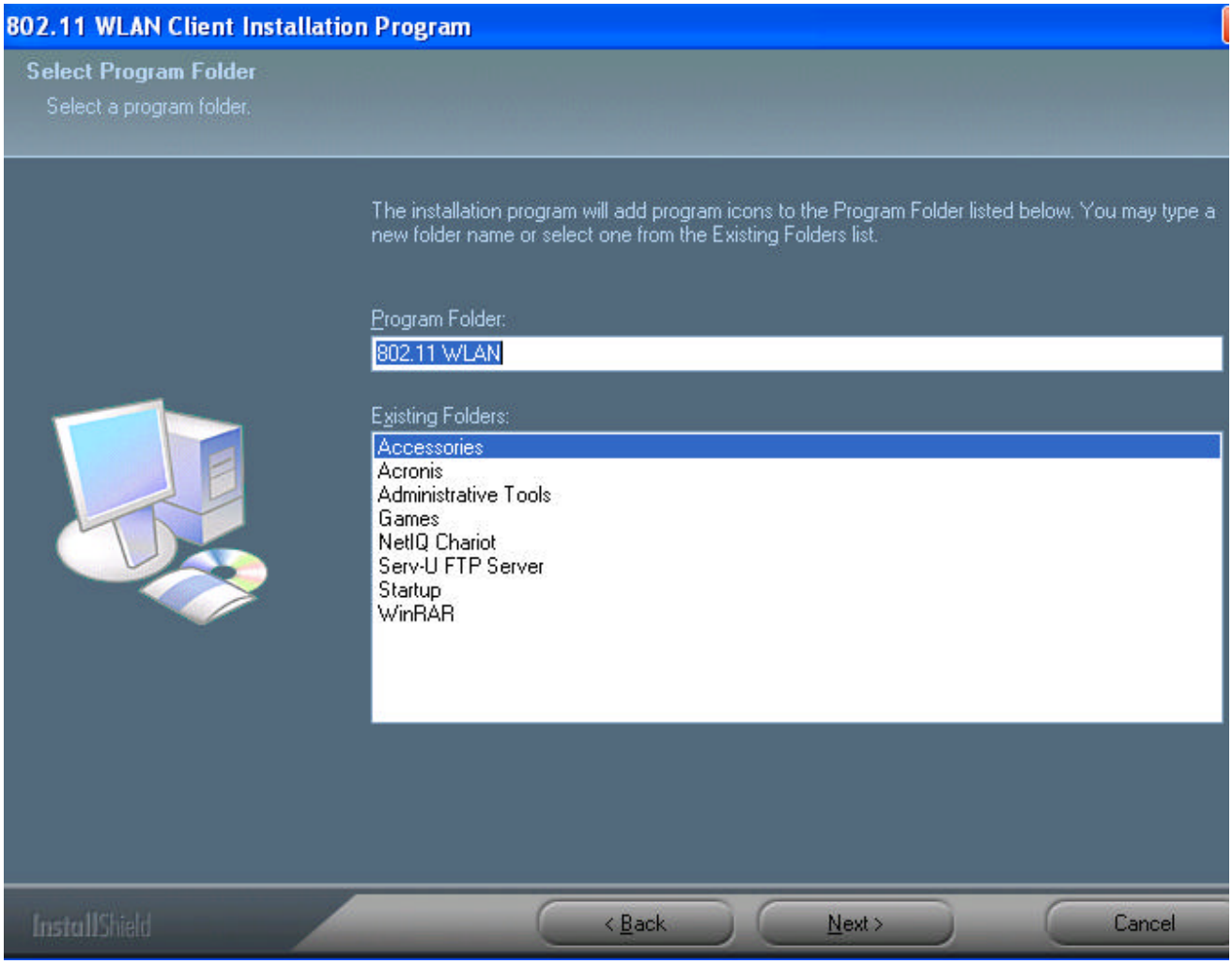
1. Insert the CD-ROM that was provided to you in this package. The setup should run automatically. If the setup does not run automatically, then you must manually select the **setup.htm** file from the CD-ROM drive.
2. Once the setup begins you will see the **Install Shield Wizard**, as the image depicts below.
3. Click on the **Next** button to continue. The Install Wizard will then let you select a destination folder for the utility and drivers. Click on the Browse button and specify another

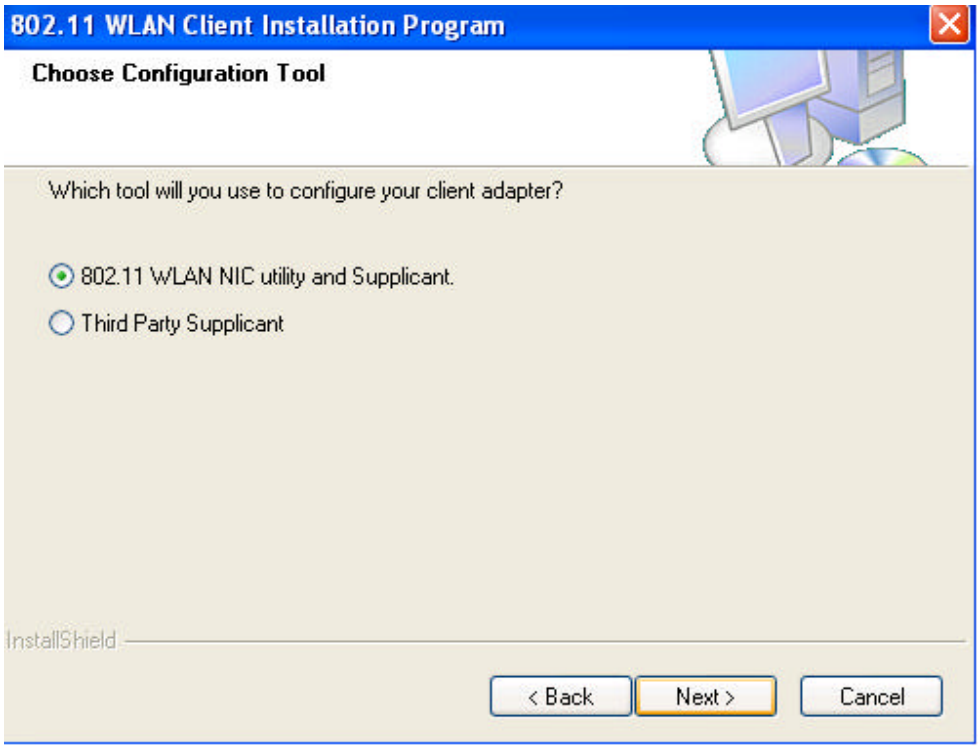
folder, or click on the **Next** button to use the default folder.
4. The Install Wizard will then allow you to select a Program Folder. Select one from the list, or click on the **Next** button to use the default program folder.
5. The Install Wizard will then inform you that it has enough information to begin the installation process. Click on the **Next** button to continue.
6. The Install Wizard will then begin to copy the files to your computer, as the image depicts below.
7. Click on the **Finish** button. The first part of the installation is complete.
8. Gently insert the PC card into the PCMCIA Type II slot of your PC. Windows will automatically detect the PC card and display the **Found New Hardware Wizard**, as the image depicts below.
9. Select the **Install the software automatically (Recommended)** radio button, and then click on the **Next** button to continue. If you are using Windows XP, you will see a message regarding Windows Logo Testing, click on the **Continue Anyway** button to continue.
10. The setup will then begin to copy the necessary files. After the copying is completed you will see the final screen of the installation procedure, as the image depicts below.

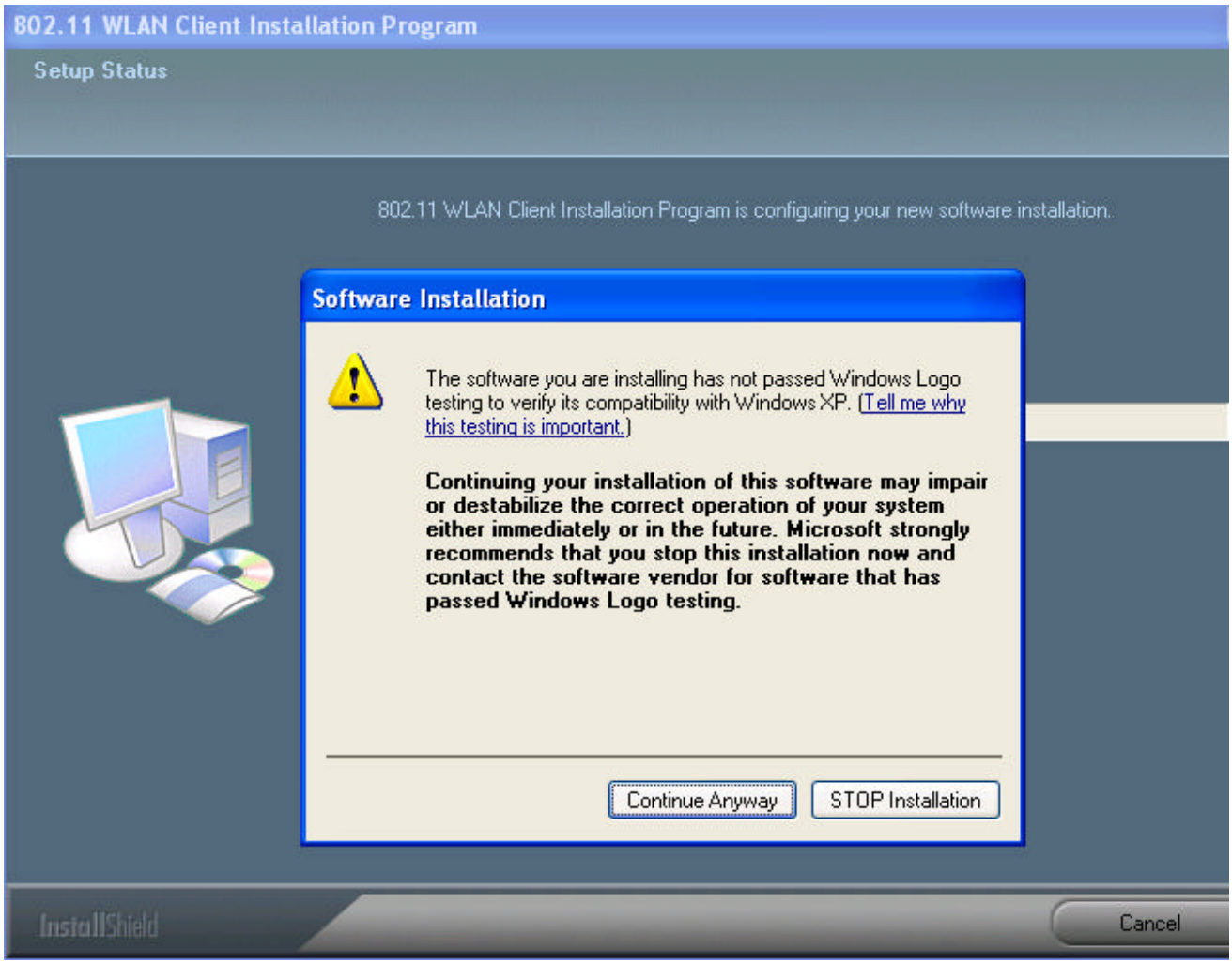



802.11 WLAN Client Installation Program
Setup Type
Select the setup type that best suits your needs.
Click the type of setup you prefer.
Install Client Utilities and Driver (recommended)
Install Driver Only
Description
Choose this option to install the driver and client utilities. This is the recommended option.
InstallShield
< Back
Next >
Cancel

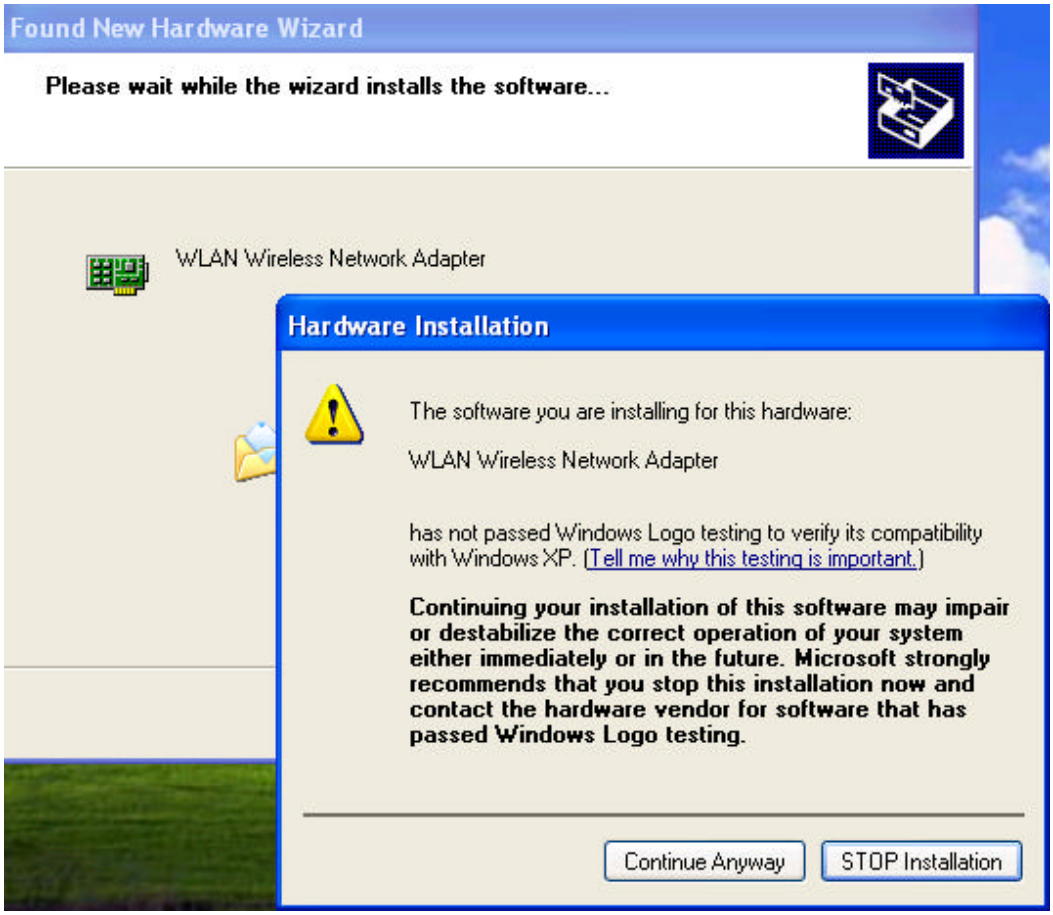

802.11 WLAN Client Installation Program
Choose Destination Location
Select the folder where the installation program will install the files.
The installation program will install the client utilities in the following location:
Destination Folder
C:\Program Files\802.11 WLAN
Browse...
InstallShield
< Back
Next >
Cancel


802.11 WLAN Client Installation Program
Select Program Folder
Select a program folder.
The installation program will add program icons to the Program Folder listed below. You may type a new folder name or select one from the Existing Folders list.
Program Folder:
802.11 WLAN
Existing Folders:
Accessories
Acronis
Administrative Tools
Games
NetIQ Chariot
Serv-U FTP Server
Startup
WinRAR
InstallShield
< Back
Next >
Cancel


802.11 WLAN Client Installation Program
Choose Configuration Tool
Which tool will you use to configure your client adapter?
802.11 WLAN NIC utility and Supplicant.
Third Party Supplicant
InstallShield
< Back
Next >
Cancel


802.11 WLAN Client Installation Program
Setup Status
802.11 WLAN Client Installation Program is configuring your new software installation.
Software Installation
The software you are installing has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the software vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation
InstallShield
Cancel

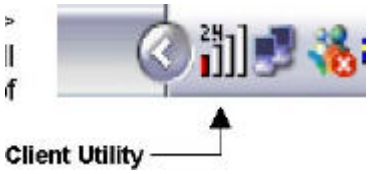
Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install software for:
WLAN Wireless Network Adapter
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel


Found New Hardware Wizard
Please wait while the wizard installs the software...
WLAN Wireless Network Adapter
Hardware Installation
The software you are installing for this hardware:
WLAN Wireless Network Adapter
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

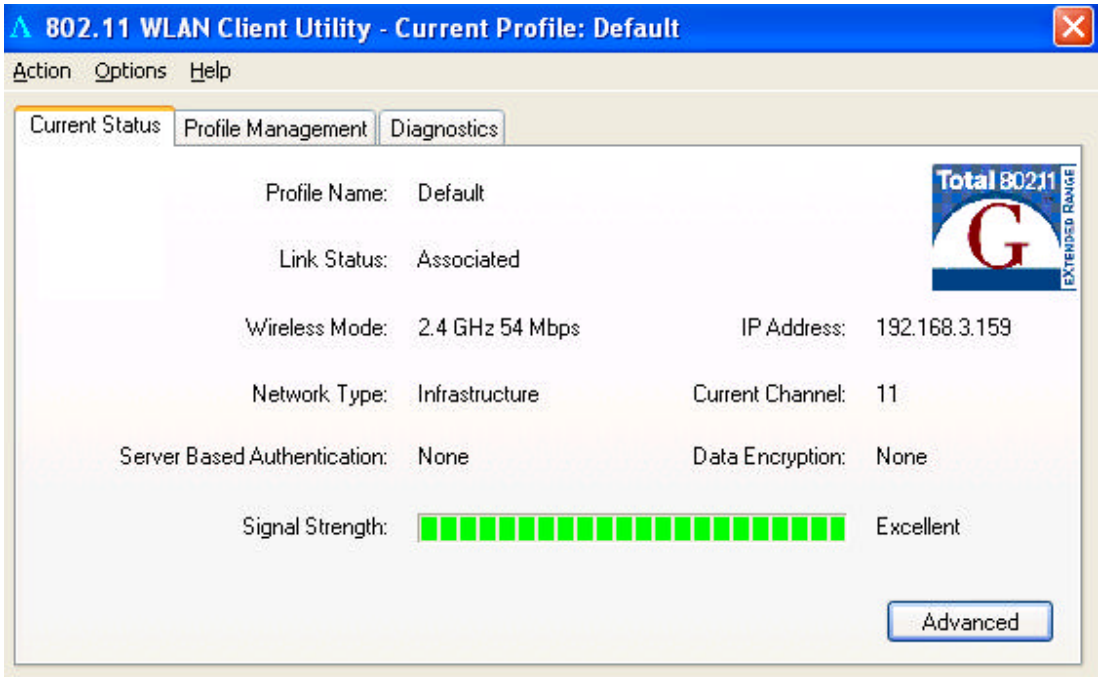
11. The installation of the PC card is now complete. Click on the **Finish** button.

3 Using the Client Utility

This chapter describes the features of the PC card and its configuration process. After a successful installation, an IEEE 802.11 program group will be added to the Programs menu. To launch the Client Utility click Start > Programs > IEEE 80211 > 802.11 WLAN NIC Utility. You will then see the Client Utility icon in the system tray of you computer. Right-click on the Client Utility icon in the system tray and then click on **Open Client Utility**, as the image depicts below.



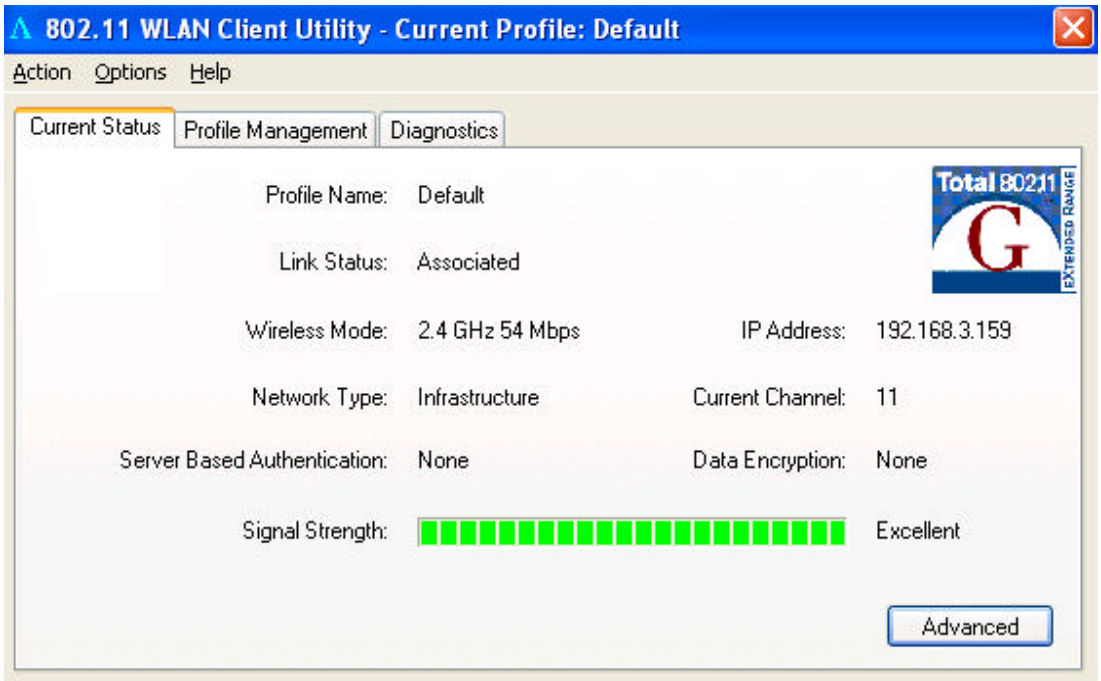
The Client Utility will then appear and display three tabs: Current Status, Profile Management, and Diagnostics. Each tab is described in detail in the next few sections.



3.1 Current Status

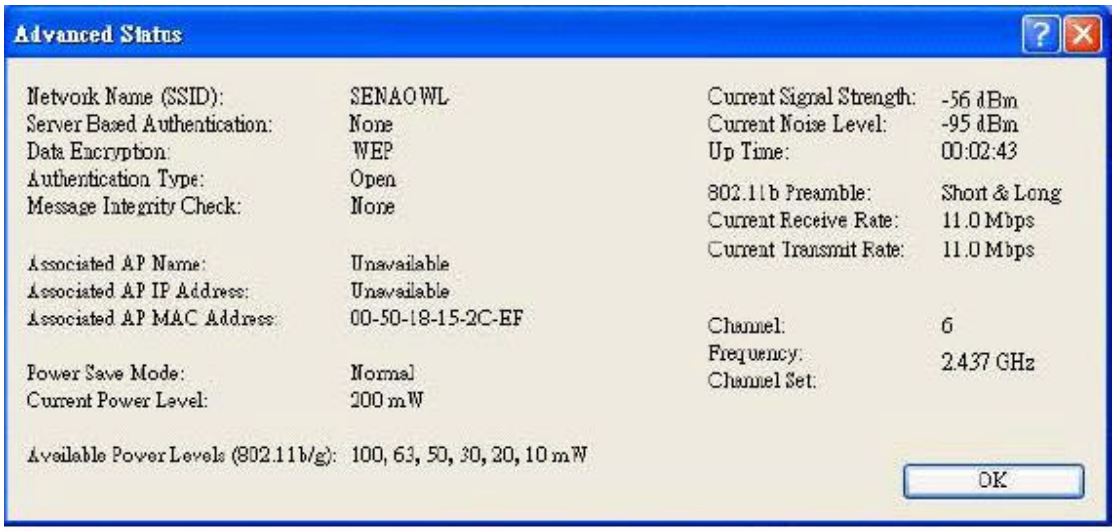
The first tab displayed in the **Current Status** tab. This tab displays the Profile Name,

Network Type, Current Mode, Current Channel, Link Status, Encryption Type, and IP Address. Configuration for each of these items is described in their respective sections.



3.1.1 Advanced Status

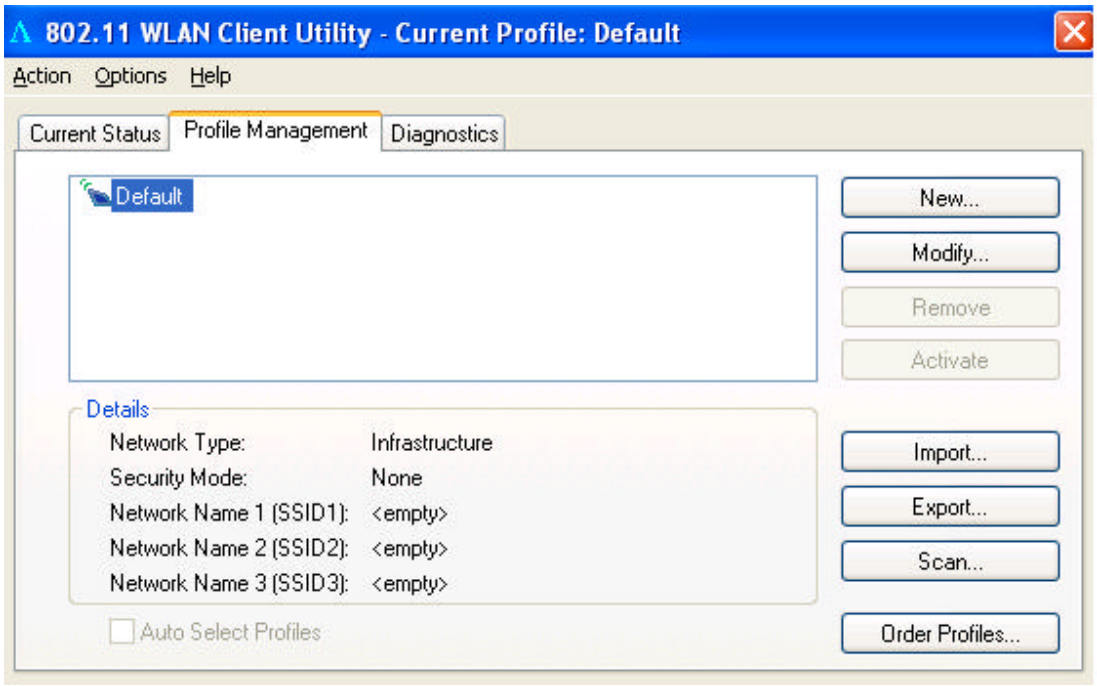
Click on the **Advanced** button to view more details about the status. You will then see the following window.



The **Advanced Status** window displays the following: Country, Transmit Power Level, Network Name (SSID), Power Save Mode, Frequency, Transmit Rate, and Receive Rate. Configuration for each of these items is described in their respective sections. Click on the **OK** button to close this window and return to the **Current Status** tab.

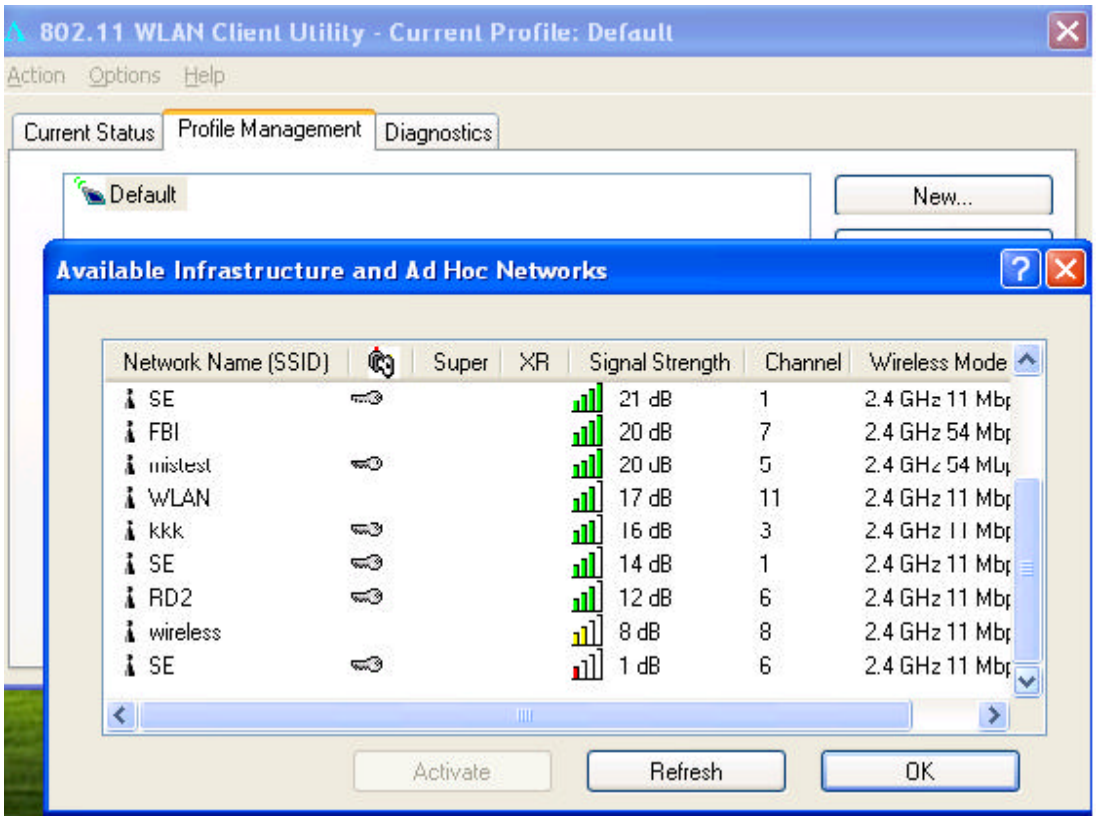
3.2 Profile Management

The second tab displayed in the **Profile Management** tab. This tab is used to create a new profile, modify and existing profile, remove an existing profile, or activating an existing profile.



3.2.1 Available Networks

Click on the **Available Networks**… button to select from a list of Access Point and Ad Hoc networks. You will then see the following window.

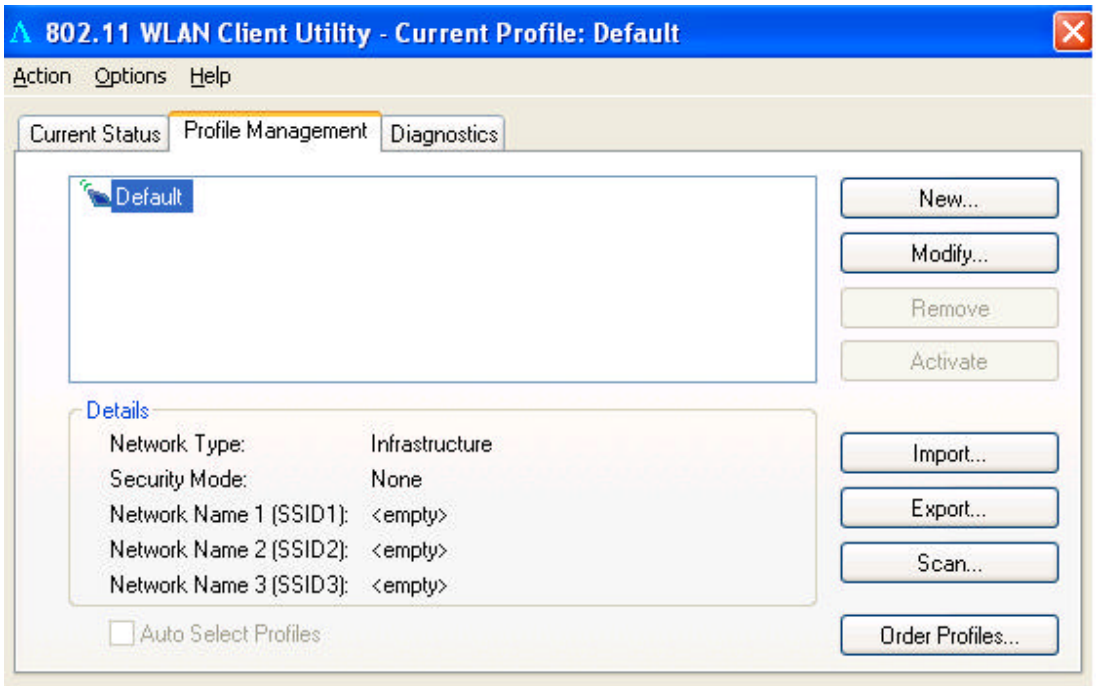


This window displays a list of Access Point and Ad-Hoc networks in the area. Details included are the Network Name (SSID), Encryption Key, Signal Strength, Channel, and Wireless Mode.

If you would like to associate with an Access Point or Ad-Hoc network, select a **Network Name (SSID)** from the list and then click on **Activate** button. You will then be associated with that network, if you have the correct permissions/keys.

3.2.2 New Profile

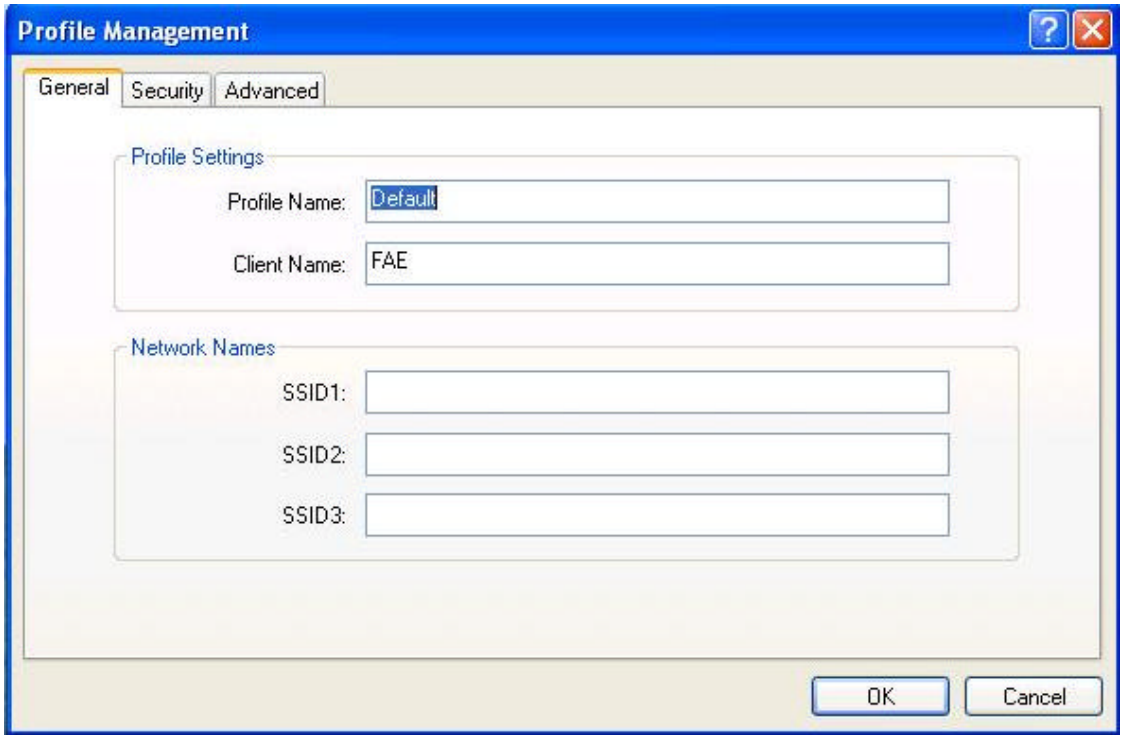
Click on the **New** button in order to create a new network to associate with.



Another window will then appear displaying three tabs: General, Security, and Advanced. Each tab is described below.

3.2.2.1 General

The first tab displayed is the **General** tab. Here you can specify a profile name and SSID.



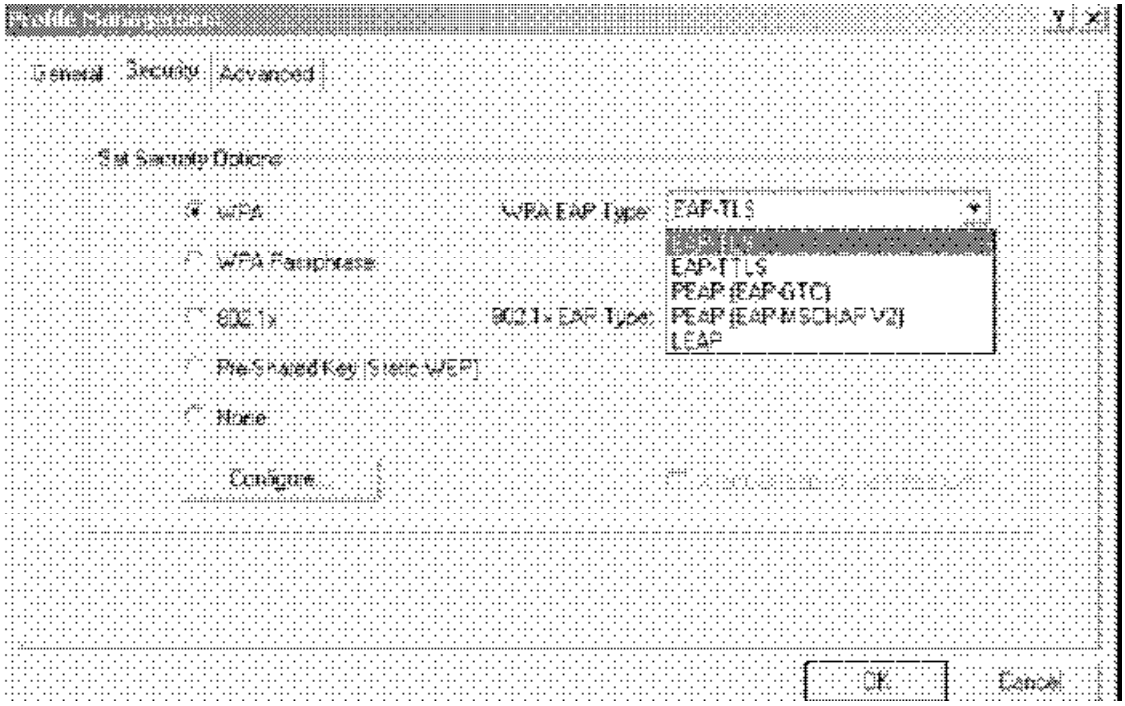
a. Profile Name: enter a name for this profile; this can be any name that you may associate with your network.

b. SSID1: enter the SSID of the network. The SSID is a unique name shared among all points in your wireless network. The SSID must be identical for all points in the network, and is case-sensitive.

c. Click on the **OK** button to save the changes.

3.2.2.2 Security

The second tab displayed is the **Security** tab. Here you can specify and configure the security method that is used by your network. There are five types of security methods available: None, WPA, WPA-PSK, 802.1X, and Pre-Shared Key. Configuration for each security method is described below.



3.2.2.2.1 None

If your network does not use any type of security select the **None** radio button and then click on the **OK** button.

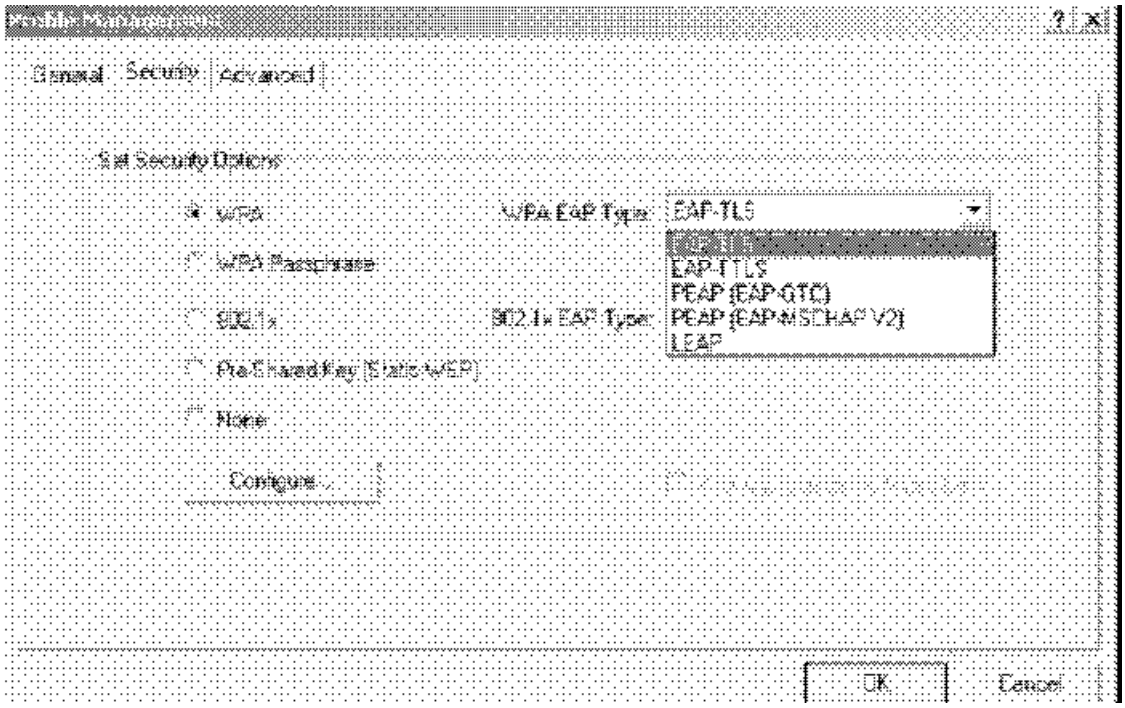
3.2.2.2.2 WPA & 802.1x

WPA (Wi-Fi Protected Access) was designed to improve upon the security features of WEP (Wired Equivalent Privacy). The technology is designed to work with existing Wi-FI products that have been enabled with WEP. WPA provides improved data encryption through the Temporal Integrity Protocol (TKIP), which scrambles the keys using a hashing algorithm and by adding an integrity-checking feature which makes sure that keys haven't been tampered with.

802.1X provides an authentication framework for wireless LANs allowing a user to be authenticated by a central authority. 802.1X uses an existing protocol called EAP.

If your network uses **802.1X,** select that radio button. You must then select an EAP type from the drop-down list. The three options available are: TLS, TTLS, PEAP (MS-CHAPv2 & GTC), and LEAP. Each one is described below.

If your network uses **WPA,** select that radio button. You must then select an **EAP** type from the drop-down list. The two options available are: TLS, TTLS, PEAP (MS-CHAPv2 & GTC), LEAP. Each one is described below.

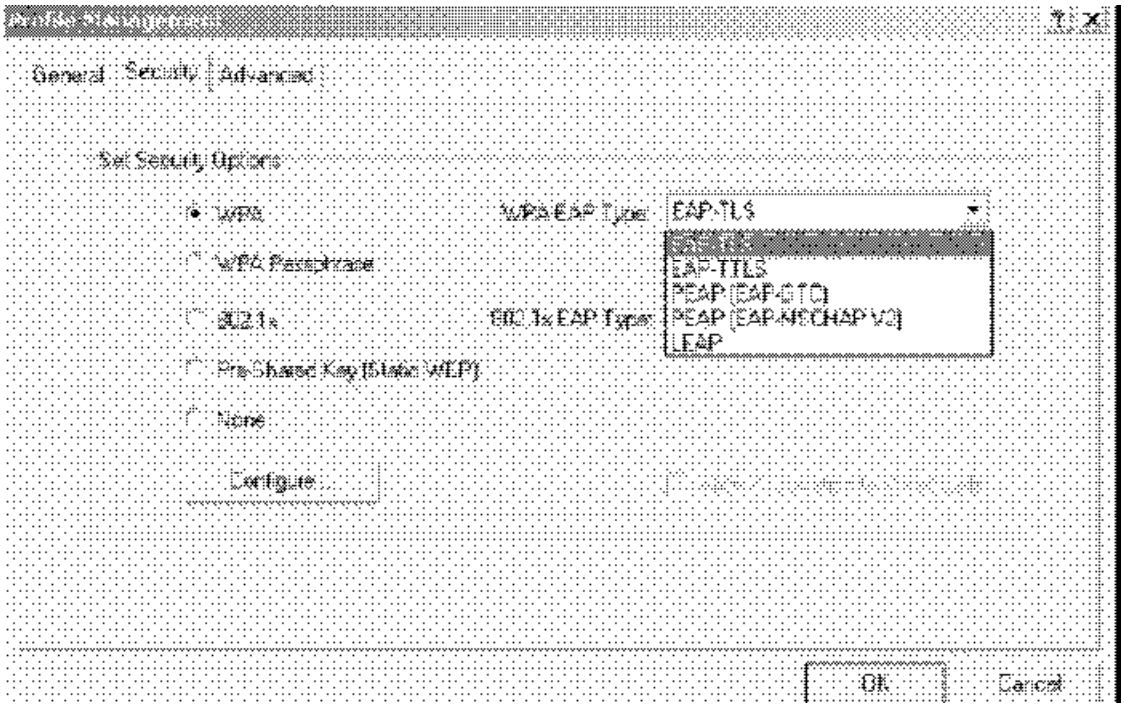


3.2.2.2.2.1 WPA & 802.1x/TLS

EAP (Extensible Authentication Protocol) is an extension to the PPP protocol that enables a variety of authentication protocols to be used. It passes through the exchange of authentication messages, allowing the authentication software stored in a server to interact with its counterpart in the client.

TLS (Transport Layer Security) is an IETF standardized authentication protocol that uses PKI (Public Key Infrastructure) certificate-based authentication of both the client and authentication server.

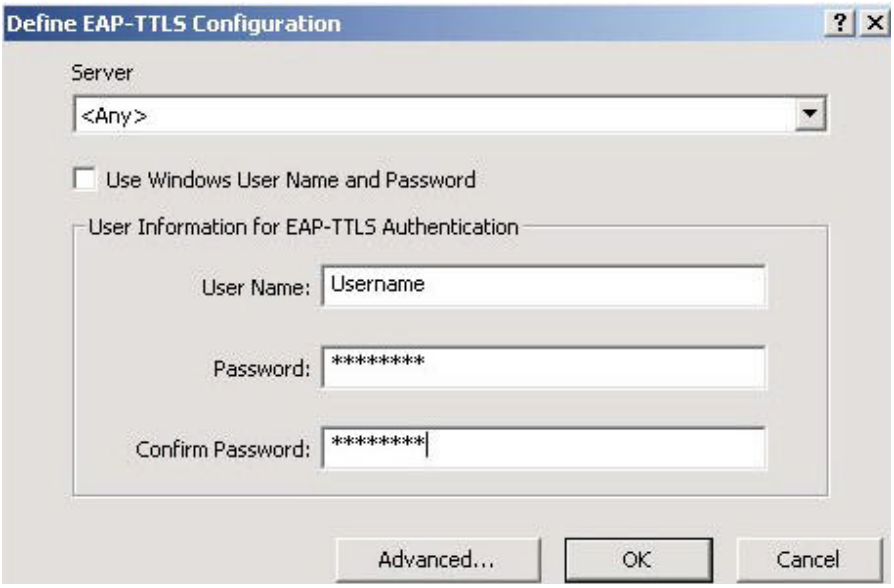
Select **TLS** from the drop-down list, and then click on the **Configure** button. The Client Utility will then search your computer for any certificates. If you do not have any certificates, you will see the following message, requiring you to select another EAP option. Click on the **OK** button.



To enable EAP-TTLS security:

1. To use EAP-TTLS security, the machine must already have the EAP-TTLS certificates downloaded onto it. Check with the IT manager. EAP security uses a dynamic session-based WEP key from the USB device and RADIUS server for encryption, and a client certificate for authentication.

2. If EAP-TTLS is supported, choose EAP-TTLS from the drop-down menu on the right, and then click the Configure button.



3.2.2.2.2.2 WPA & 802.1x – PEAP

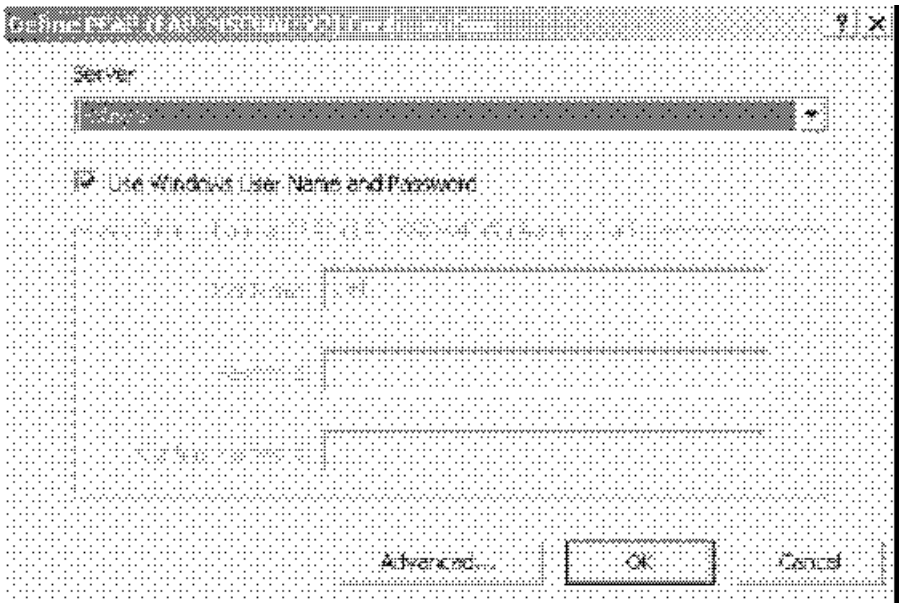
EAP (Extensible Authentication Protocol) is an extension to the PPP protocol that enables a variety of authentication protocols to be used. It passes through the exchange of authentication messages, allowing the authentication software stored in a server to interact with its counterpart in the client.

PEAP (Protected Extensible Authentication Protocol) is a protocol developed jointly by Microsoft, RSA Security, and Cisco for transmitting authentication data, including passwords over a 802.11 wireless network. PEAP authenticates wireless LAN clients using only server-side digital certificates by creating an SSL/TLS tunnel between the client and the authentication server. The tunnel then protects the subsequent user authentication exchange.

To enable PEAP (EAP-MSCHAP V2) security:

1. To use PEAP (EAP-MSCHAP V2) security, the server must have PEAP certificates, and the server properties must already be set. Check with the IT manager.

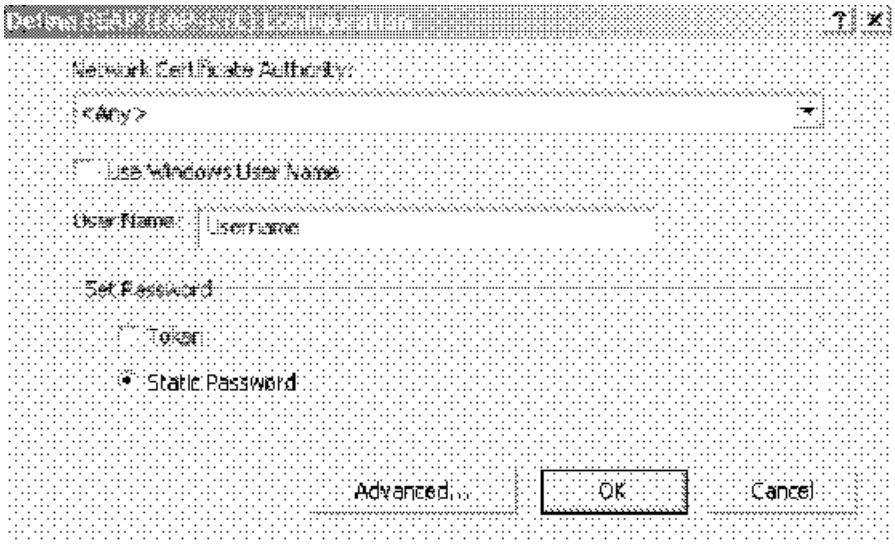
2. If supported, choose PEAP (EAP-MSCHAP V2) from the drop-down menu on the right, then click the Configure button.



To enable PEAP (EAP-GTC) security:

1. To use PEAP (EAP-GTC) security, the server must have PEAP certificates, and the server properties must already be set. Check with the IT manager.

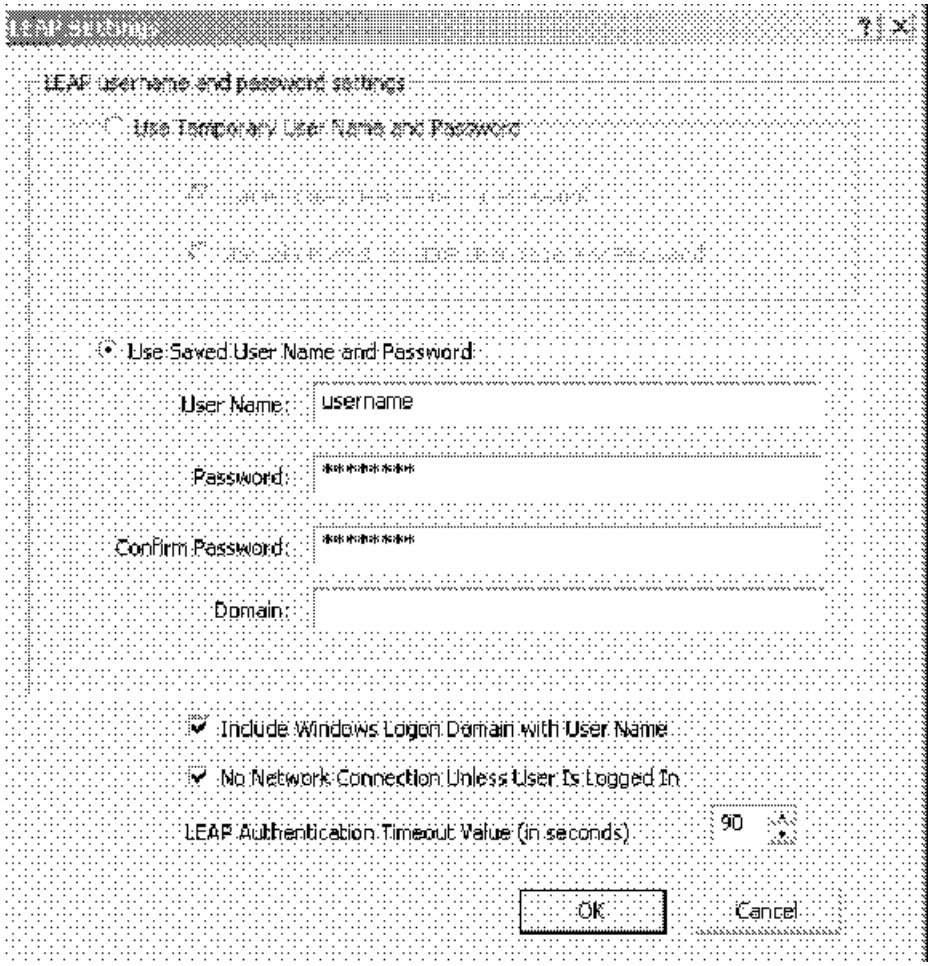
2. If PEAP is supported, choose PEAP from the drop-down menu on the right, and then click the Configure button.



To enable WPA & 802.1x_LEAP security:

1. LEAP security requires that all infrastructure devices are configured for LEAP authentication. Check with the IT manager.

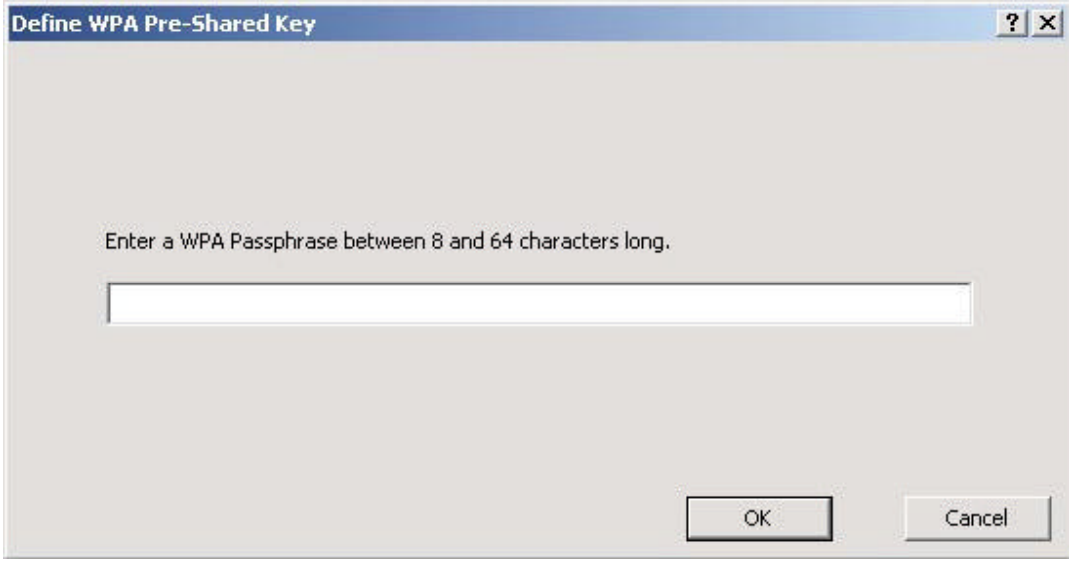
2. If supported, choose LEAP from the drop-down menu on the right, then click the Configure button.



3.2.2.2.3 WPA – PSK

WPA – PSK (Pre-shared Key) is used in a Pre Shared Key mode that does not require an authentication server. Access to the Internet and the rest of the wireless network services is allowed only if the pre-shared key of the computer matches that of the Access Point. This approach offers the simplicity of the WEP key, but uses stronger TKIP encryption.

If your network uses **WPA-PSK,** select that radio button, and then click on the **Configure** button. You will then see the following window.



Enter the WPA pass-phrase in the text box. The pass-phrase must be a minimum of 8 characters. This is the password shared between the Access Points and the Clients. Click on the **OK** button when completed.

3.2.2.2.5 Pre-Shared Key

Pre-shared Key does not require an authentication server. Access to the Internet and the rest of the wireless network services is allowed only if the pre-shared key of the computer matches that of the Access Point. This approach offers the simplicity of the WEP key, but uses stronger TKIP encryption.

To enable Pre-Shared Key security:

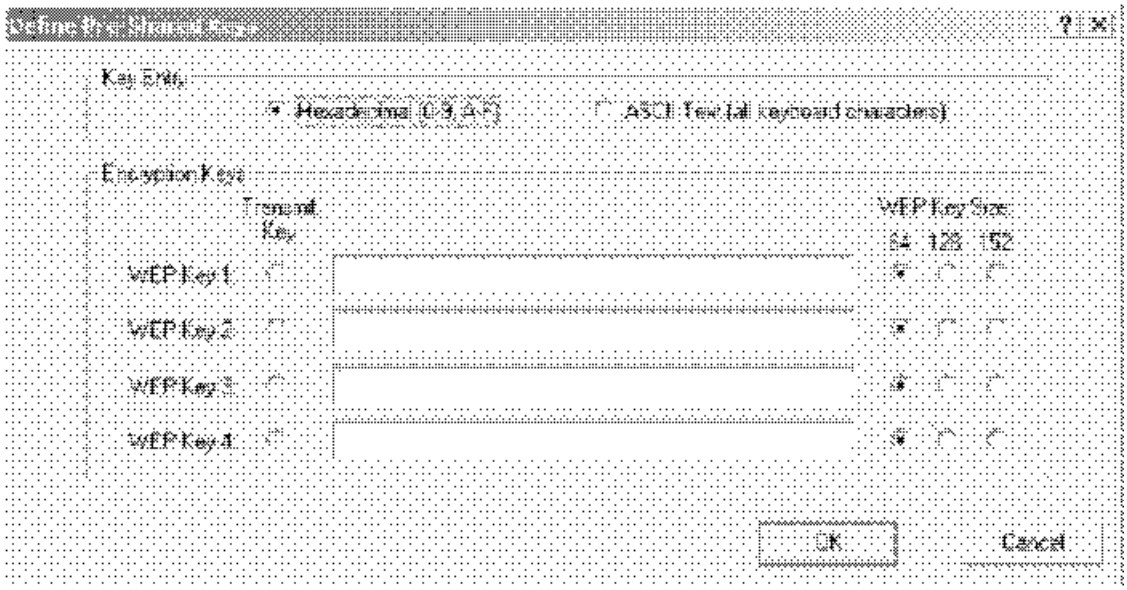
1. Click on the Security tab, and choose the Pre-Shared Key radio button. Click the Configure button.

2. Define the pre-shared keys and select the default key.

3. Click OK.

4. If the access point that the Cardbus Adapter is associating to have WEP set to Optional and the client has WEP enabled, make sure that Allow Association to Mixed Cells is checked on the Security Tab to allow association.

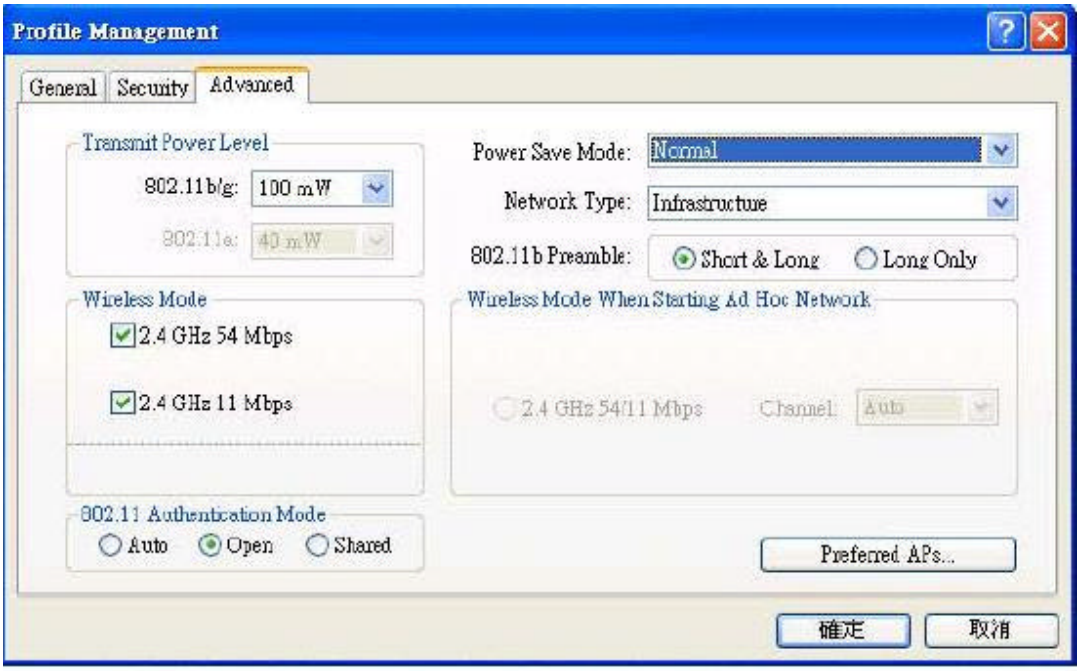
5. Click OK and enable the profile.



3.2.2.3 Advanced

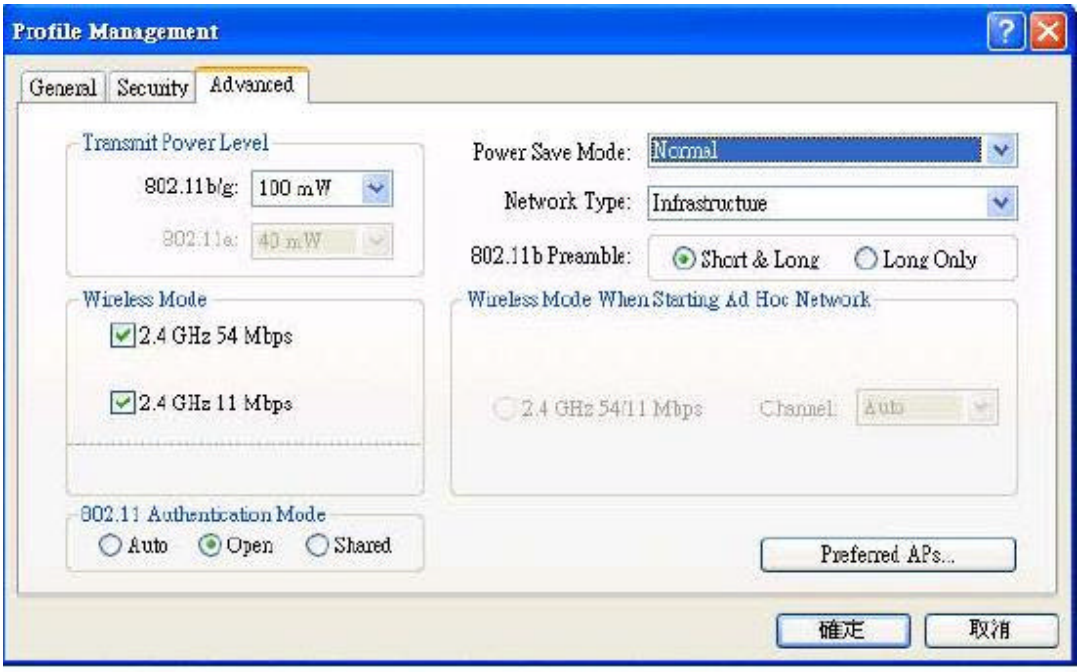
The third tab displayed is the **Advanced** tab. Here you can configure details about an Access Point or Ad Hoc network Configuration for each security method is described below.

3.2.2.3.1 Access Point



Power Save Mode: select a power save mode from the drop-down list.
Network Type: select **Access Point** from the drop-down list.
802.11b Preamble: select **Short & Long** or **Long Only**.
Transmit Power Level: select a power level from the drop-down list.
Wireless Mode 2.4 GHz 11 Mbps: place a check in this box if you would like to use 2.4GHz 11 Mbps.
Wireless Mode: place a check in this box if you would like to use the available frequencies. Click on the **OK** button to continue.

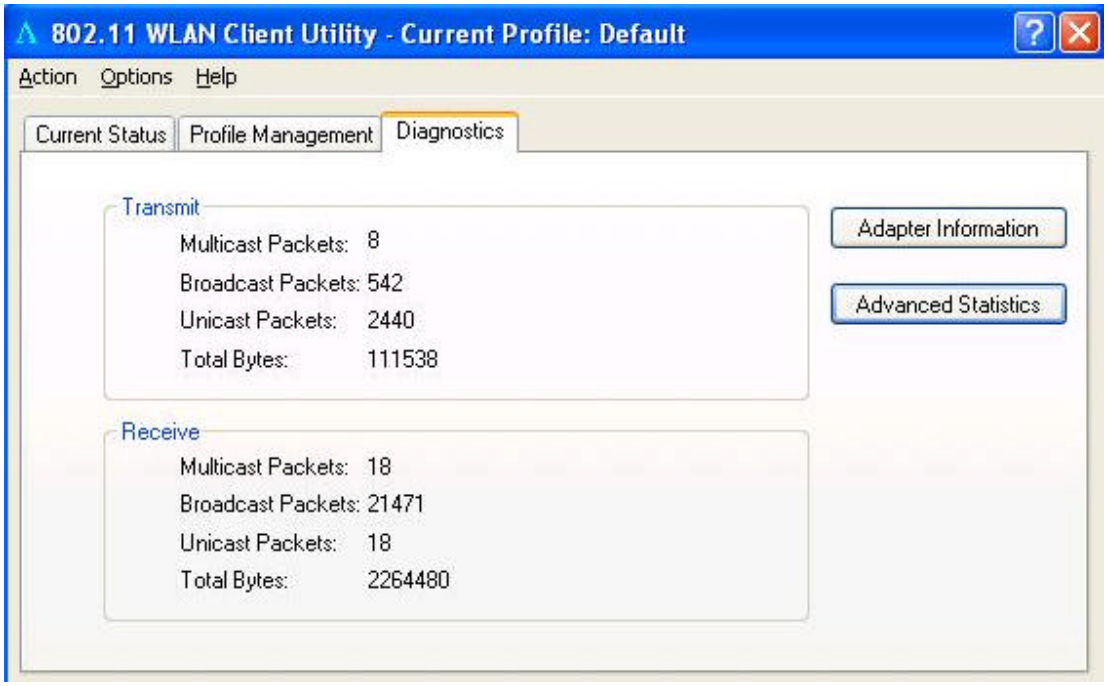
3.2.2.3.2 Ad Hoc



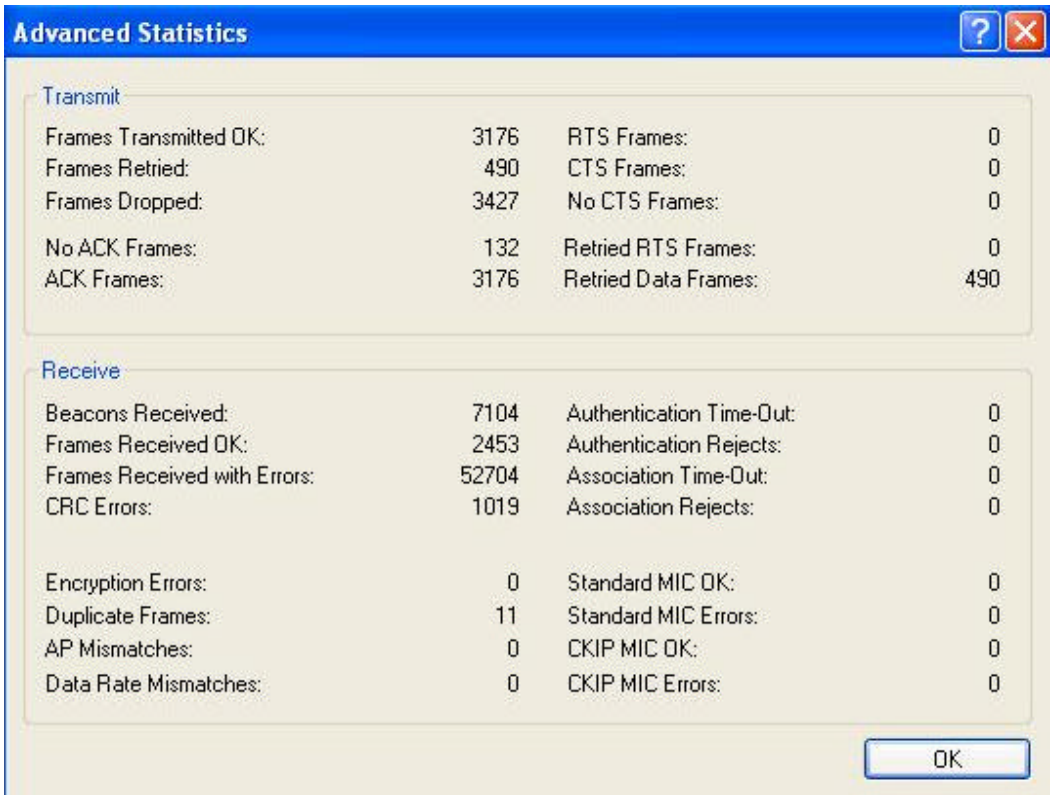
Network Type: select **Ad Hoc** from the drop-down list.
802.11b Preamble: select **Short & Long** or **Long Only**.
Transmit Power Level: select a power level from the drop-down list.
Wireless Mode 2.4 GHz 11 Mbps: place a check in this box if you would like to use 2.4GHz 11 Mbps.
Wireless Mode: place a check in this box if you would like to use the available frequencies.
Channel: select a channel number from the drop-down list, or set the channel to **auto**. Click on the **OK** button to continue.

3.3 Diagnostics

The third tab displayed in the **Diagnostics** tab. This tab displays transmit and receive frame details.

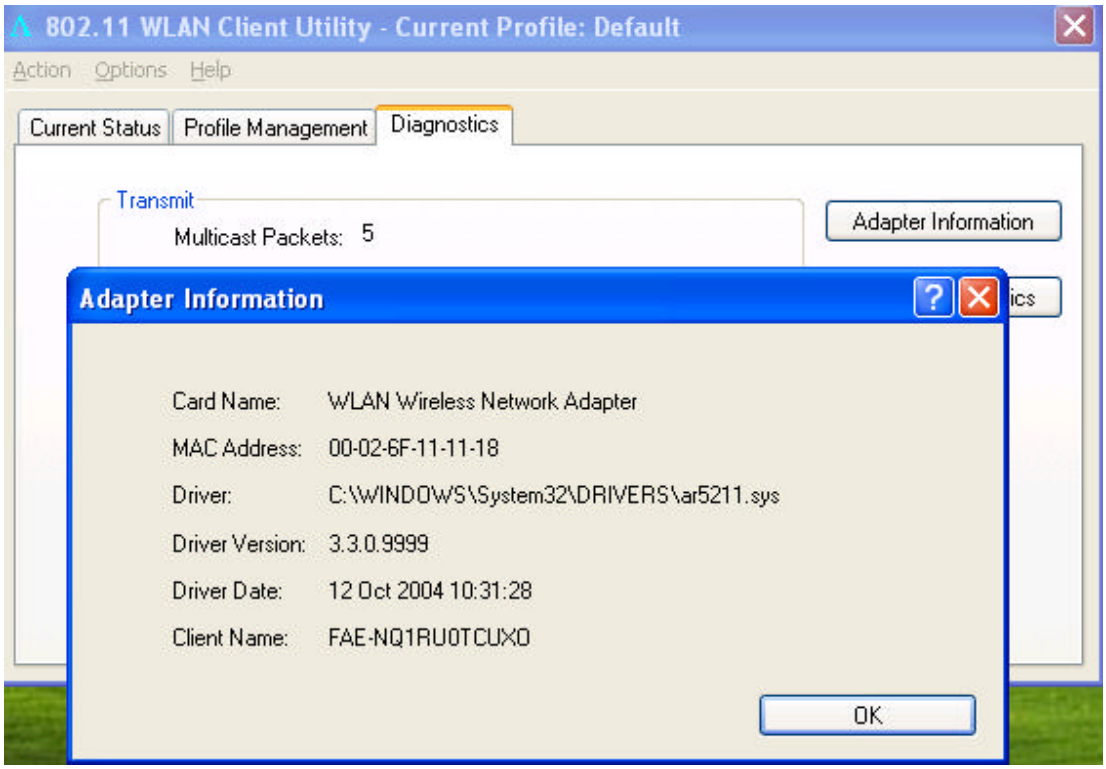


3.3.1 Advanced Statistics Click on the **Advanced Statistics** button to view more detailed statistics.



3.3.2 Driver Information

Click on the **Driver Information** button to view details about the driver. Included information is: Card Name, MAC Address, Driver, Driver Version, and Driver Date.

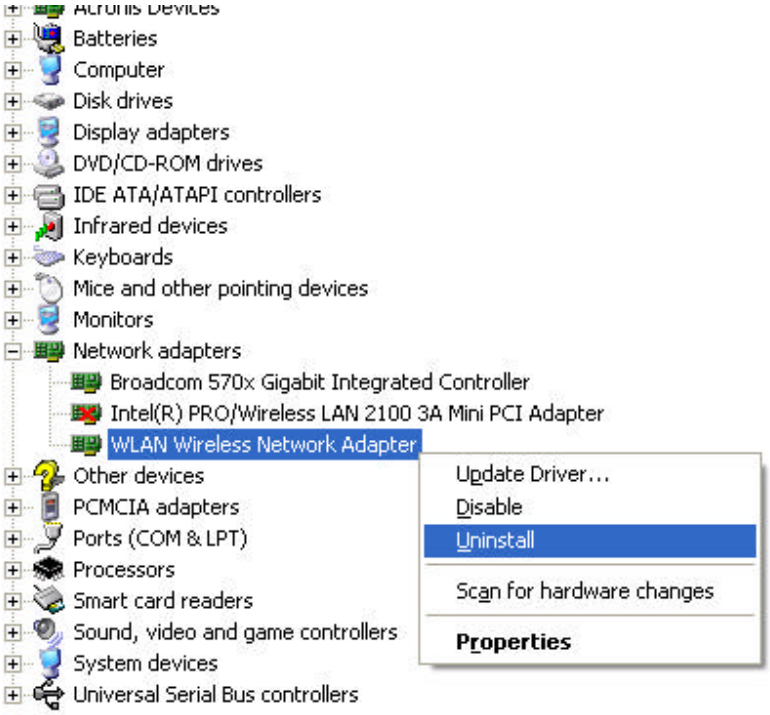


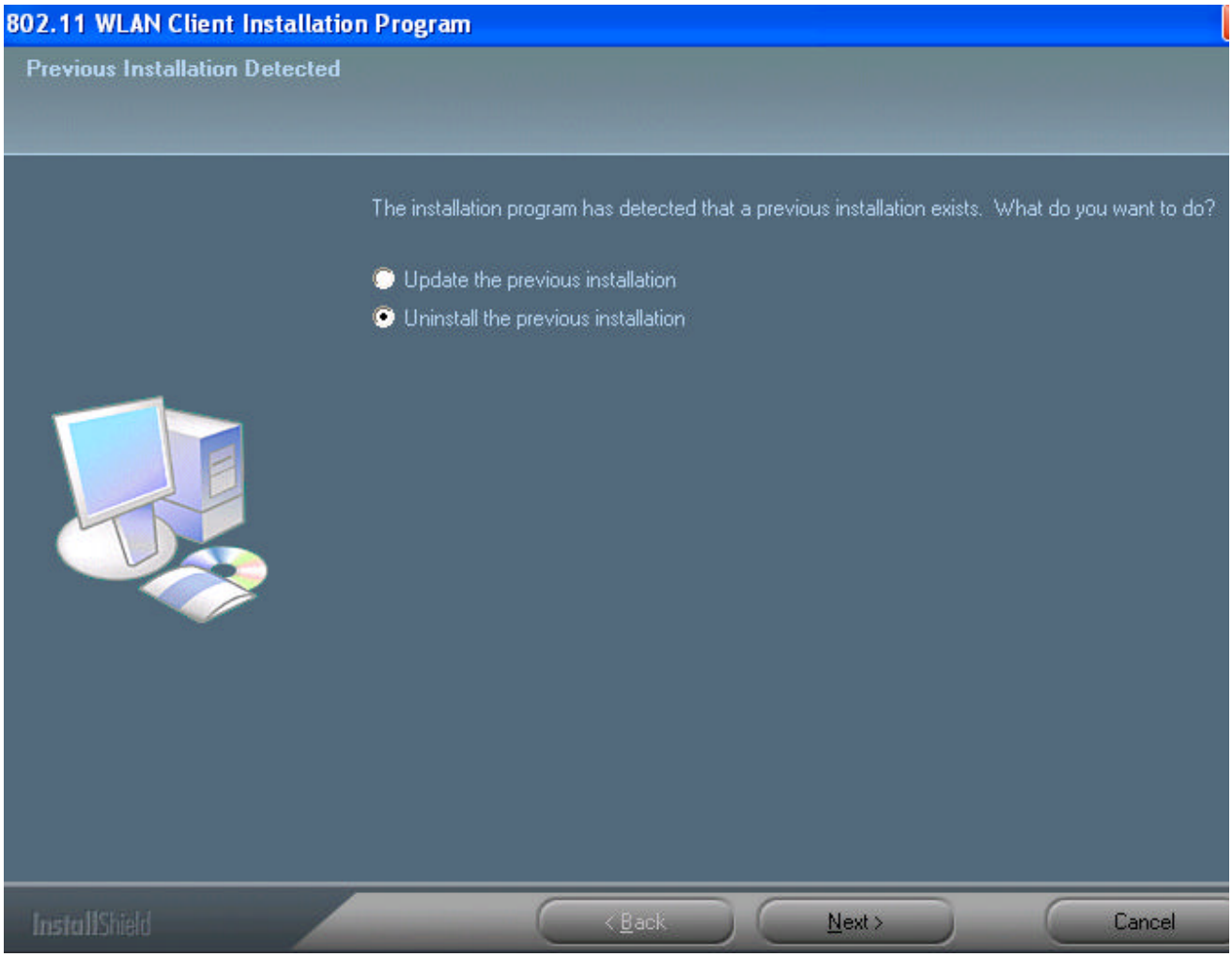
4. Un-installation

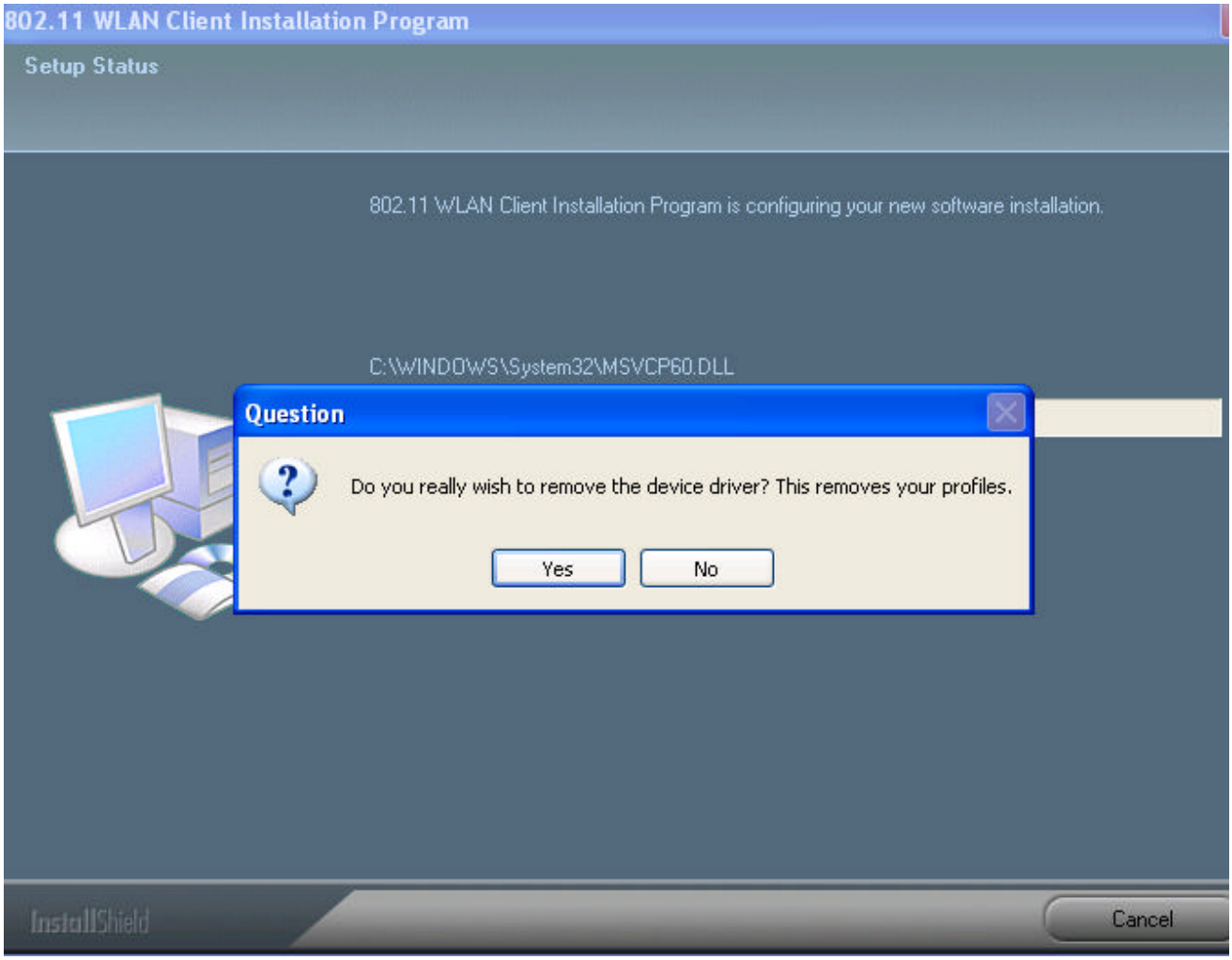
If the PC card installation is unsuccessful for any reason, the best way to solve the problem may be to completely uninstall the PC card and its software and repeat the installation procedure again.

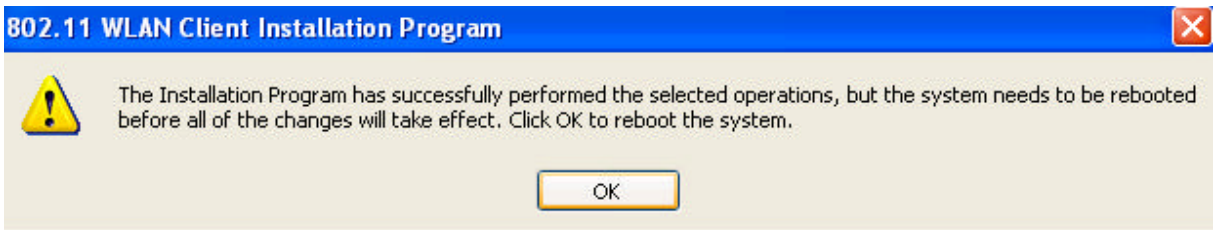
Follow the steps below in order to uninstall the Client Utility:

1. Click on **Start > Settings > Control Panel**.
2. Double click on the **System** icon.
3. Click on the **Hardware** tab, and then click on the **Device Manger** button.
4. Select **Network adapters** to view a list of network adapters on your PC.
5. Right-click on the **WLAN Wireless Network Adapter**, you will then see a window similar to the image below.
6. Select **Uninstall**. You will then see the following message asking you to confirm the device removal.
7. Click on the **OK** button. The driver Uninstallation will then complete.
8. Click **Start > Programs > WLAN Wireless Network Adapter**, you will then see the following window.
9. Select the **Remove** radio button, and then click on the **Next** button.
10. A message will then appear asking to you confirm the Uninstallation. Click on the **OK** button.
11. The Client Utility will then begin to uninstall. Another window will then appear select **Yes, I want to restart my computer now** radio button, and then click on the **Finish** button. The Un-installation process is complete.


Acronis Devices
Batteries
Computer
Disk drives
Display adapters
DVD/CD-ROM drives
IDE ATA/ATAPI controllers
Infrared devices
Keyboards
Mice and other pointing devices
Monitors
Network adapters
Broadcom 570x Gigabit Integrated Controller
Intel(R) PRO/Wireless LAN 2100 3A Mini PCI Adapter
WLAN Wireless Network Adapter
Other devices
PCMCIA adapters
Ports (COM & LPT)
Processors
Smart card readers
Sound, video and game controllers
System devices
Universal Serial Bus controllers
Update Driver...
Disable
Uninstall
Scan for hardware changes
Properties


802.11 WLAN Client Installation Program
Previous Installation Detected
The installation program has detected that a previous installation exists. What do you want to do?
Update the previous installation
Uninstall the previous installation
InstallShield
< Back
Next >
Cancel





Appendix A - Specifications

1. General

Radio Data Rate (Auto-rate capable)	802.11g : 6, 9, 12, 18, 24, 36, 48 & 54Mbps 802.11b : 1, 2, 5.5, 11Mbps
Network Standards	WECA (Wi-Fi & Wi-Fi5 Compliant), IEEE802.11, IEEE802.11g draft, IEEE802.11b, draft IEEE802.11e, f, h and I standards, IEEE802.11x (Optional)
Security	IEEE802.11x Support for LEAP (Optional) WPA – Wi-Fi Protected Access (64, 128, 152-WEP with TKIP)
Network Architecture	Support ad-hoc, peer-to-peer networks and infrastructure communications to wired Ethernet networks via Access Point
Drivers	Windows 98/ME/2000/XP
Access Protocol	CSMA/CA with ACK
Roaming	IEEE802.11b compliant
Operating Voltage	3.3V/5V
Regulation Certifications	FCC Part 15/UL, ETSI 300/328/CE
LED Indicator	RF Link activity

2. RF Information

Frequency Band	802.11b/g : 2.412 to 2.462GHz
Modulation Technology	**802.11g :** OFDM (64-QAM, 16-QAM, QPSK, BPSK) **802.11b :** DSSS (DBSK, DQPSK, CCK)
Receive Sensitivity (Typical)	802.11b/g : -91dBm@1Mbps, -85dBm@9Mbps, -77dBM@ 36Mbps -89dBm@2Mbps, -82dBm@12Mbps, -76dBM@ 48Mbps -87dBm@5.5Mbps, -80dBm@18Mbps, -73dBM@ 54Mbps -86dBm@6Mbps, -78dBm@24Mbps
Transmit Output Power	**802.11b/g :** Up to 21dBm

3. Environmental

Temperature Range	-10℃ to 55℃ – Operating -40℃ to 70℃ – Storage
Humidity (non-condensing)	5% to 95% Typical

4. Physical Specifications

Interface	32-bit CardBus PC Card Standard V7.1 Type II
Antenna	Integrated built-in diversity Antenna
Dimensions	118(L)mm * 54(W)mm * 6.3(H)mm (4.65in * 2.13in * 0.30in)

Appendix B – FCC Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

. • Reorient or relocate the receiving antenna.
. • Increase the separation between the equipment and receiver.
. • Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
. • Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference
2. This device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:
FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This device complies with FCC RF Exposure limits set forth for an uncontrolled environment, under 47 CFR 2.1093 paragraph (d) (2).

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

CH1~CH11 for 2.4GHz by specified firmware controlled in U.S.A.
Highest SAR test Value: 1.280 W / kg
this device is only approved for laptop configurations utilizing side mounted PCMCIA Card slots.