

Wireless Cardbus Network Adapter

Quick Installation Guide

The information in this guide may change without notice. The manufacturer assumes no responsibility for any errors which may appear in this guide.

Ethernet is a trademark of XEROX Corporation. Microsoft, Windows and Windows logo are trademarks of Microsoft Corporation.

Copyright 2002. All right reserved. No Part of the contents of this guide may be transmitted or reproduced in any form or by any means without the written permission of us. Printed in Taiwan.

The revision date for this guide is **Sep. 9th, 2002**

Version 1.0

FCC Statement

This product has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against such interference when operating in a commercial environment. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used according to the instructions, may cause harmful interference to radio communications.

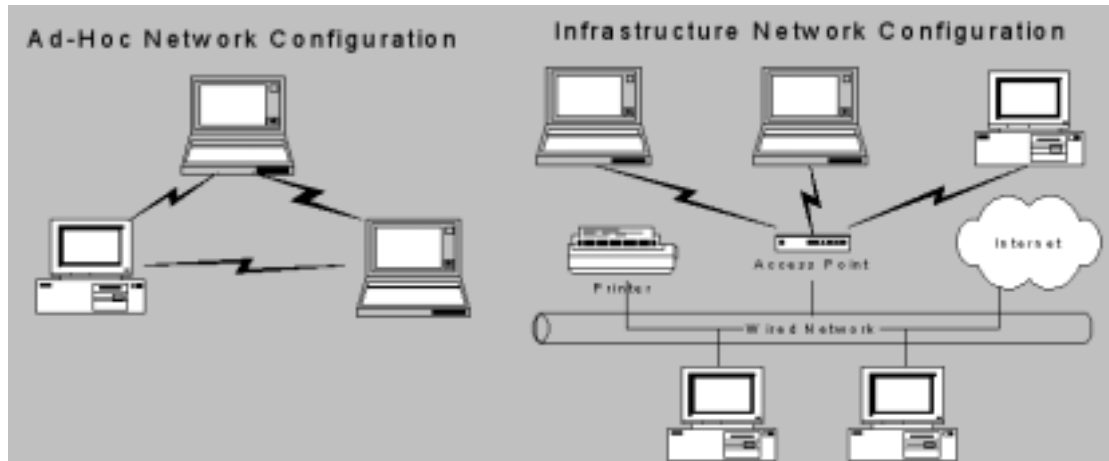
Operation of this equipment in a residential area is likely to cause interference in which case the user, at his or her own expense will be required to take whatever measures may be required to correct the interference.

CE Mark Warning

This is a Class B product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Introduction

This product is a wireless LAN Cardbus Adapter, which provides you the most reliable and fastest way to access a wireless network. This product can be operated in Ad-Hoc (peer-to-peer mode or without an Access Point) and Infrastructure (with an Access Point) network configuration.



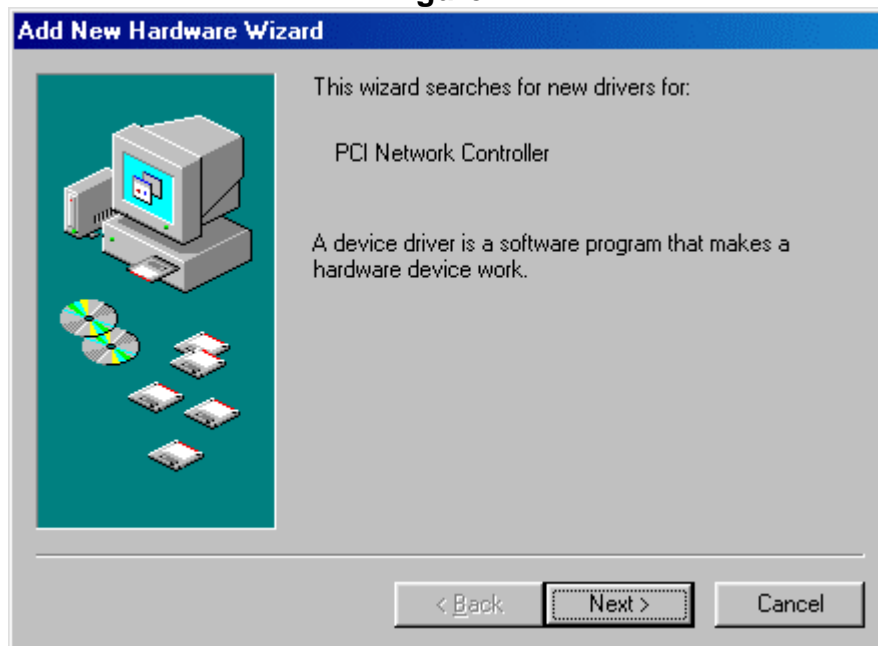
Please refer to the proper section corresponding with operating system you are using to install this Product.

Installation Procedure

Installation Procedure for Windows 98 and 98SE Users

1. Turn on your computer.
2. Make sure that this product has not been connected to the computer yet.
3. Place the supplied CD to the CD-ROM drive.
4. Windows 98/98SE will automatically detect the presence of the device and display the “**Found New Hardware Wizard**” screen.

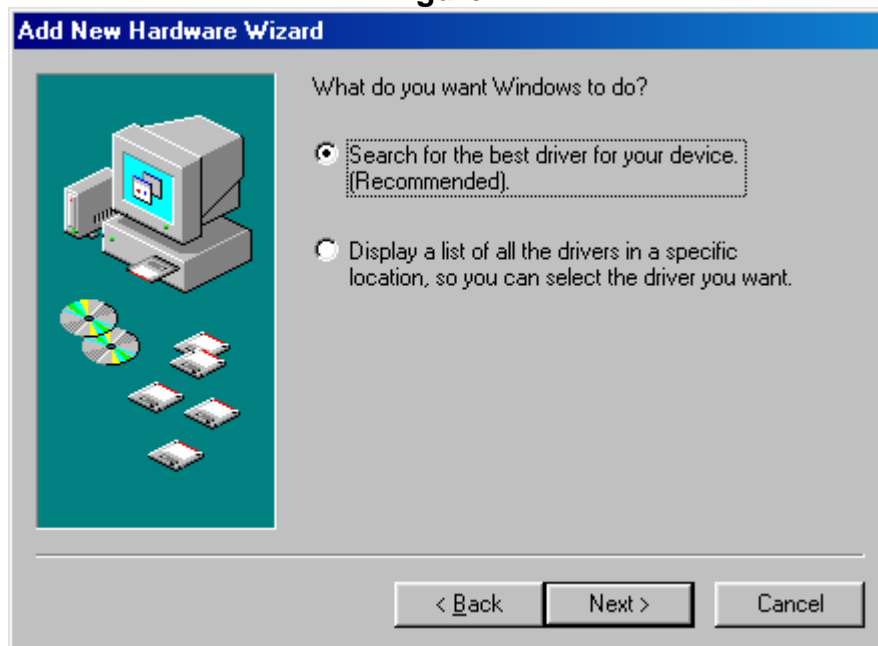
Figure 1



5. Click the **Next** button after you see a welcome message.

6. Select “**Search for the best driver for your device. (Recommended).**”
Click on **Next**.

Figure 2



7. Choose the Destination Folder where the configuration utility will be stored by clicking the **Browse** button, or type the directory of drivers into the column as the following screen.

Figure 3



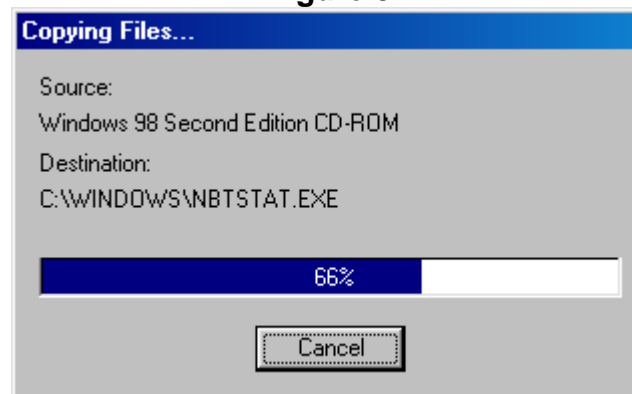
8. After the drivers are found, the directory will appear on the screen. Click on **Next**.

Figure 4



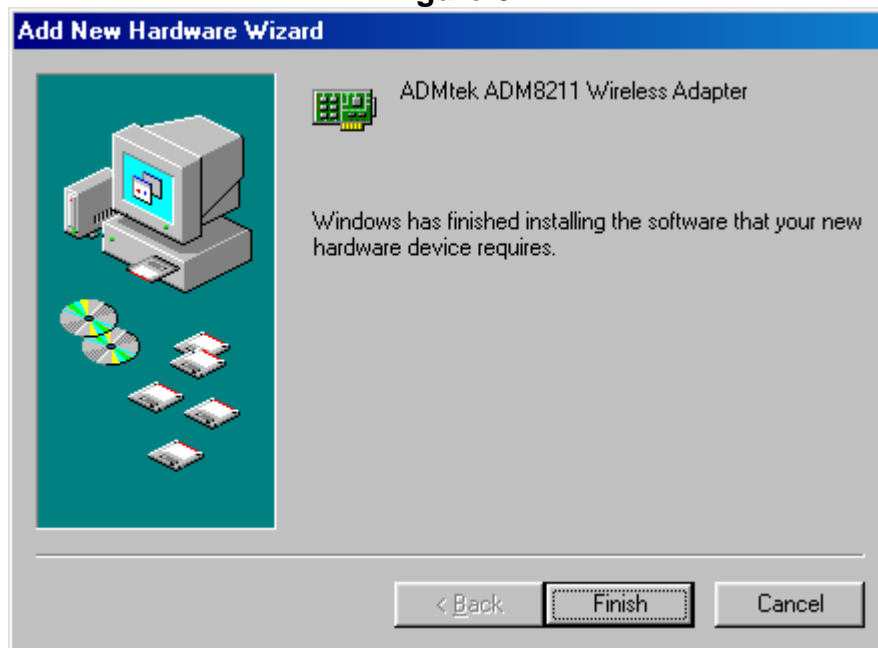
9. Before the drivers are loaded, Windows will ask you to put the Windows 98 CD into the CD-Rom and load the necessary files.

Figure 5



10. After the drivers are loaded, click on **Finish**.

Figure 6



11. Windows will ask you to restart the computer to activate the device.
12. After the computer is restarted, this product can operate with the factory default settings. However, you may refer to **Utility Configuration** to configure the device.

Installation Procedure for Windows Me Users

1. Turn on your computer.
2. Insert the device into your computer.
3. The Found New Hardware Wizard screen will appear.

Figure 7



4. Select **Specify the location of the driver (Advanced)**. Click the **Next** button.

5. Select **Specify a location**. Fill in the Program Folder Name or leave it as default, and then click the **Next** button

Figure 8



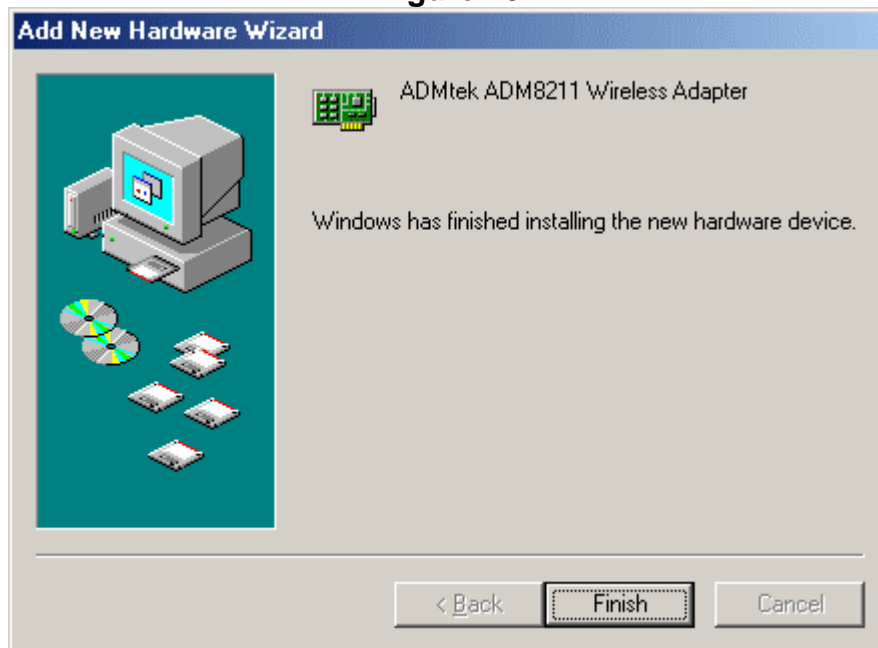
6. Click the **Next** button after you see a welcome message.

Figure 9



7. On the InstallShield Wizard Complete screen, click the **Finish** button.

Figure 10



8. Windows will ask you to restart the computer to activate the device.
9. As soon as the driver is loaded, this product can operate with the factory default settings. However, you may refer to **Utility Configuration** to configure the device.

Installation Procedure for Windows 2000 Users

1. Turn on your computer.
2. Insert this device into your computer. The Found New Hardware Wizard screen will appear. Click on **Next**.

Figure 11



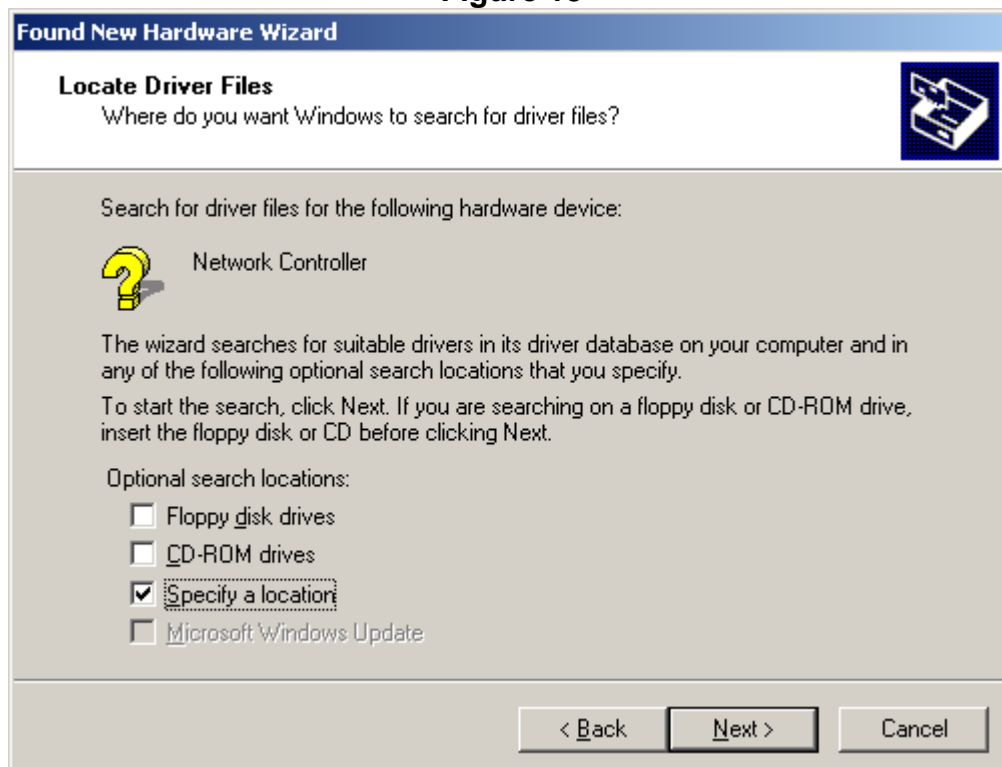
3. The Install Hardware Device Drivers screen will appear. Select **Search for a suitable driver for my device (recommend)**. Click on **Next**.

Figure 12



4. Select **Specify a location**. Click on **Next**.

Figure 13



5. Choose the destination directory where the configuration utility will be stored by clicking the **Browse** button, or enter the destination directory route name.

Figure 14



6. Click on **OK**. The Digital Signature Not Found screen will pop up to inform you the device has not passed Digital Signature testing. Because the device has been tested to work with Windows 2000, please click on **Yes** to proceed.

Figure 15



7. On the InstallShield Wizard Complete screen, click on **Finish**.

Figure 16



8. As soon as the driver is loaded, this product can operate with the factory default settings. However, you may refer to **Utility Configuration** to configure the device.

Installation Procedure for Windows XP Users

1. Turn on your computer.
2. Insert the device into your computer.
3. Windows XP will automatically detect the presence of the device and display the “Found New Hardware Wizard” screen.

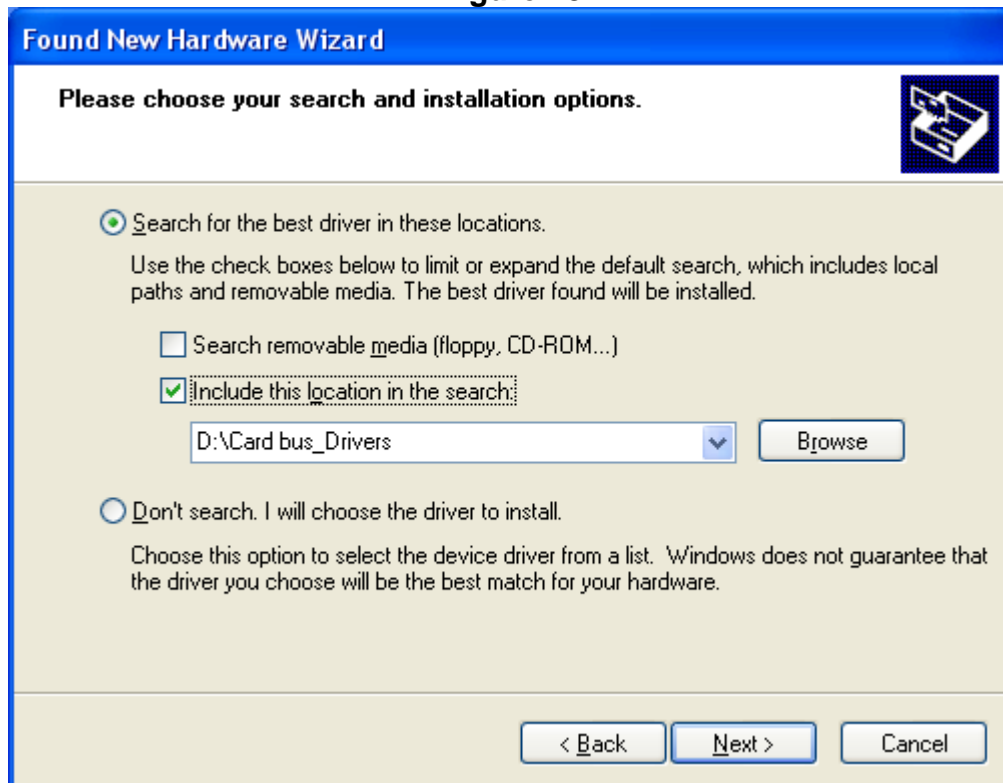
Figure 17



4. Place the supplied CD to the CD-ROM drive.
5. Select **Install from a list or specific location (advanced)** and click on **Next**.

6. Select **Search for the best driver in these locations**. Enter the location of the files into the column.

Figure 18



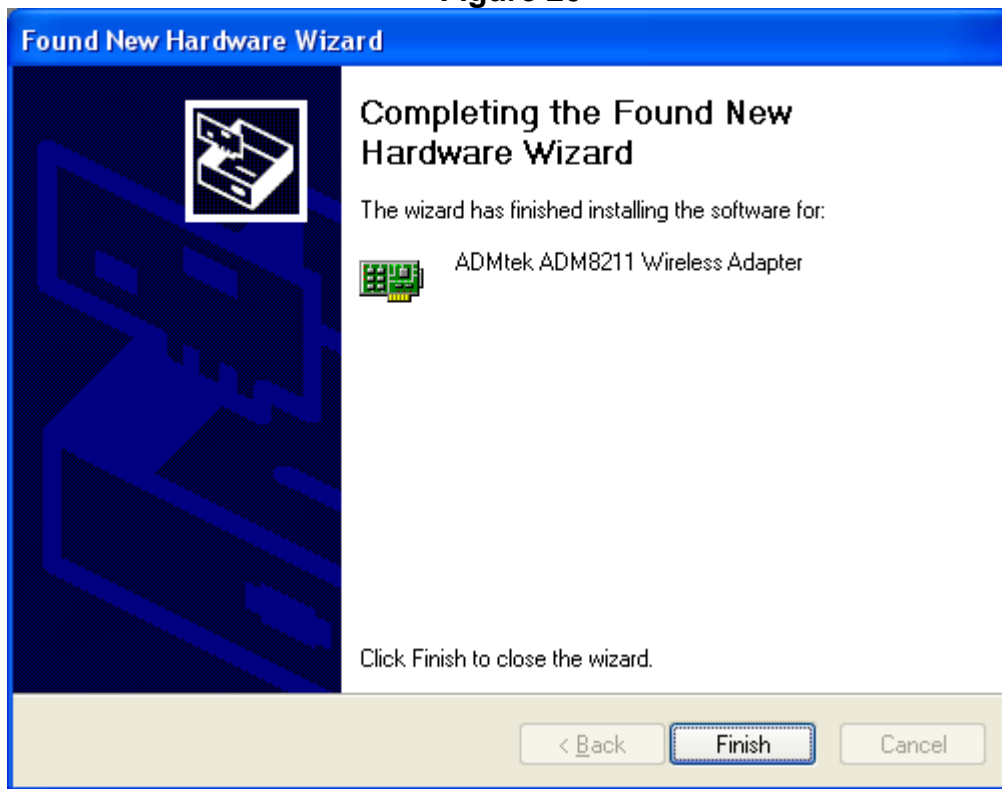
7. Windows will notify you that the driver has not passed Windows Logo testing. Because this product has been tested to work with Windows XP, please click the **Continue Anyway** button.

Figure 19



8. Click the **Finish** button after Windows display the **Completing the Found New Hardware Wizard** screen.

Figure 20



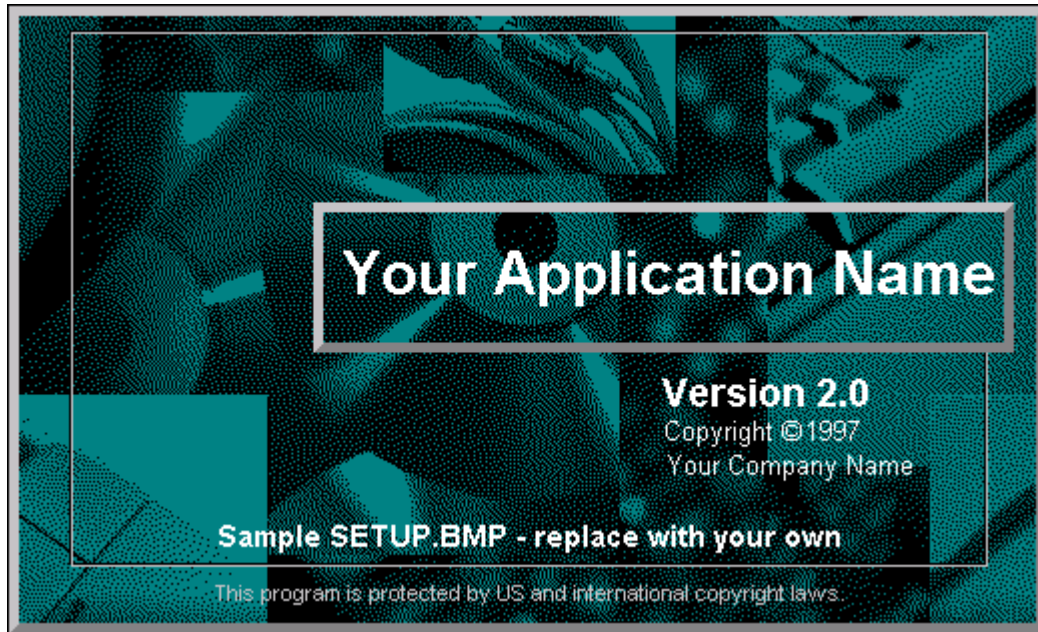
9. As soon as the driver is loaded, this product can operate with the factory default settings. However, you may refer to **Utility Configuration** to configure the device.

Windows is registered trademark of Microsoft Corporation. All other trademarks and brand names are the property of their respective proprietors.

Installation of WLAN Utility

If you want to run the WLAN Utility, insert the CD into your CD-ROM to set up the function. The CD will run the program automatically. The following screen will appear. Follow these steps to install the utility.

Figure 21

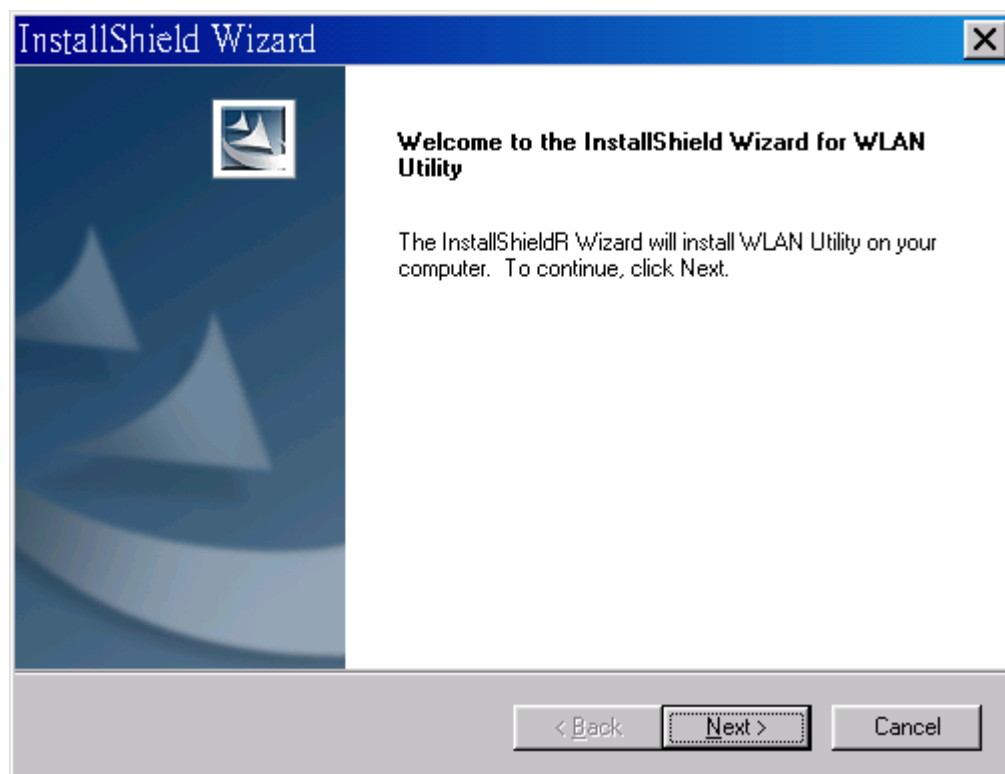


Note:

This function can not be executed under Windows XP, for Windows XP can configure the device automatically.

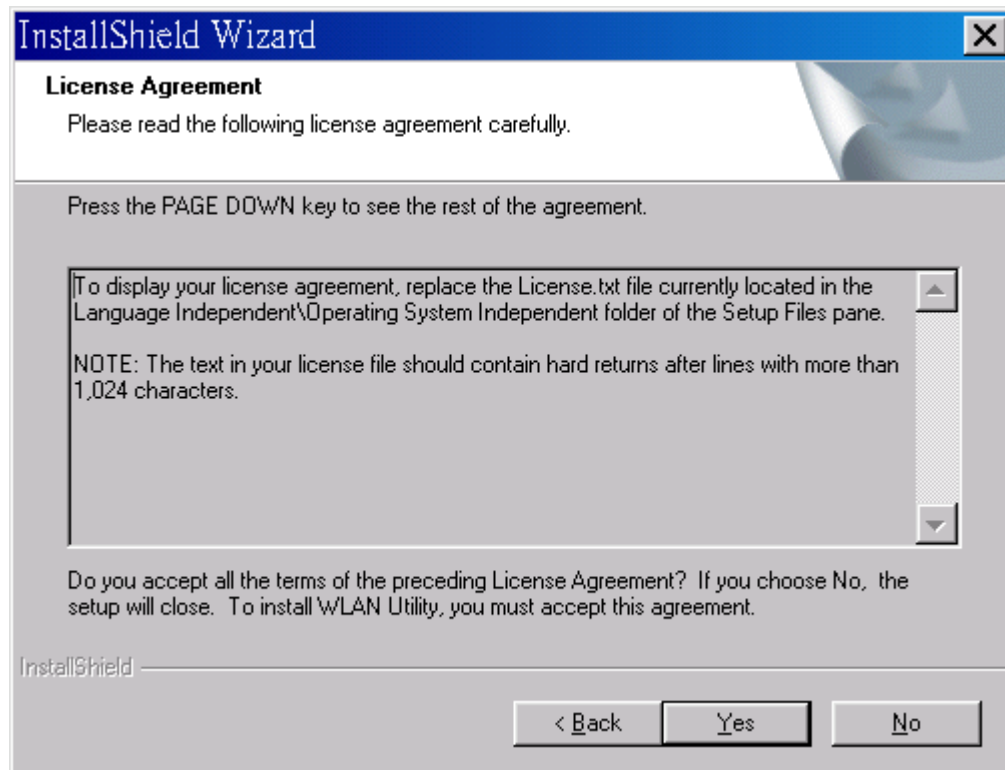
1. After the CD auto-run the program, a Welcome screen will appear as follows.

Figure22



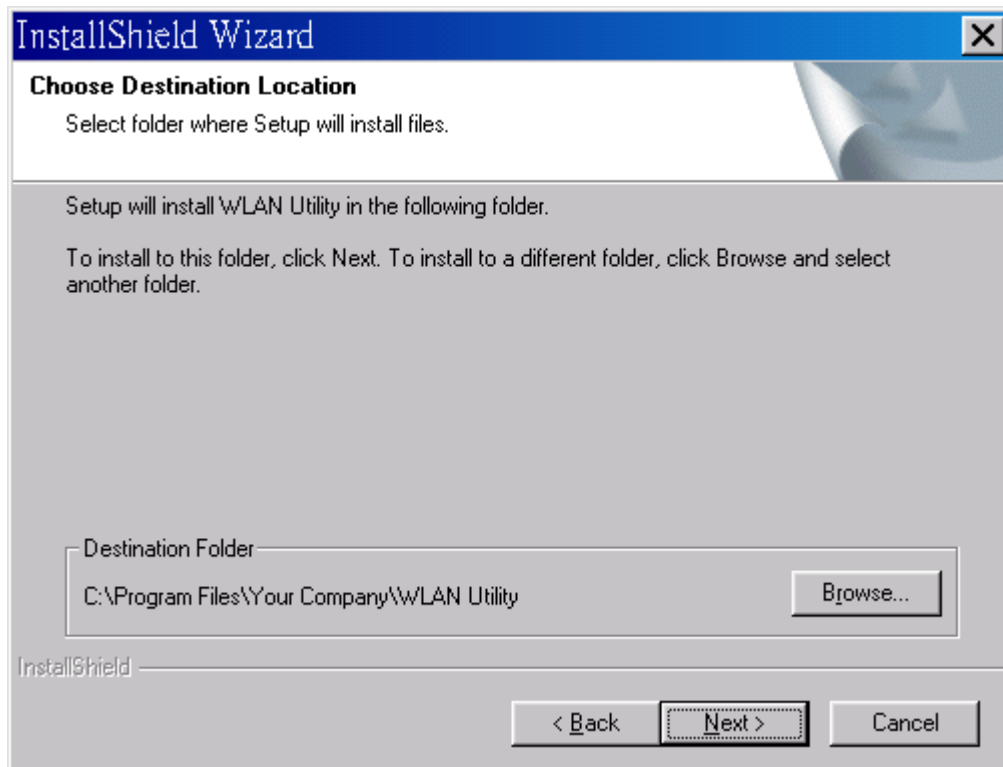
2. Click on the **Next** button. A License Agreement screen will appear. Click on the **Yes** button if you agree with the license.

Figure 23



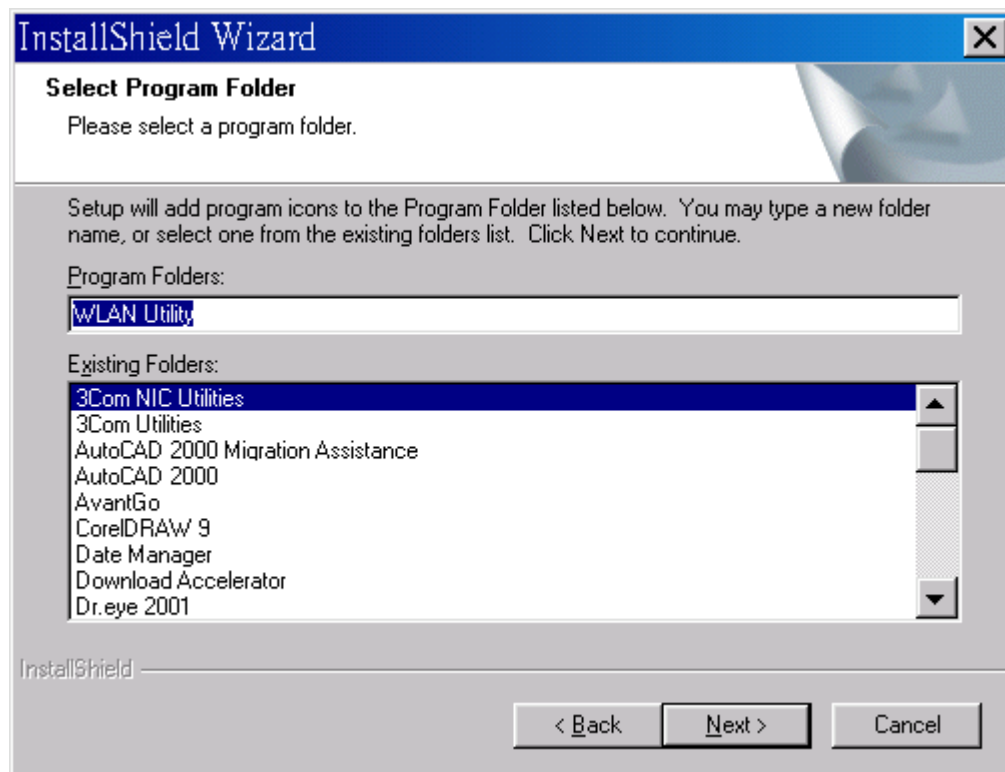
3. The Choose Destination Location screen will appear. Browse the destination folder you want to install or leave it as default.

Figure 24



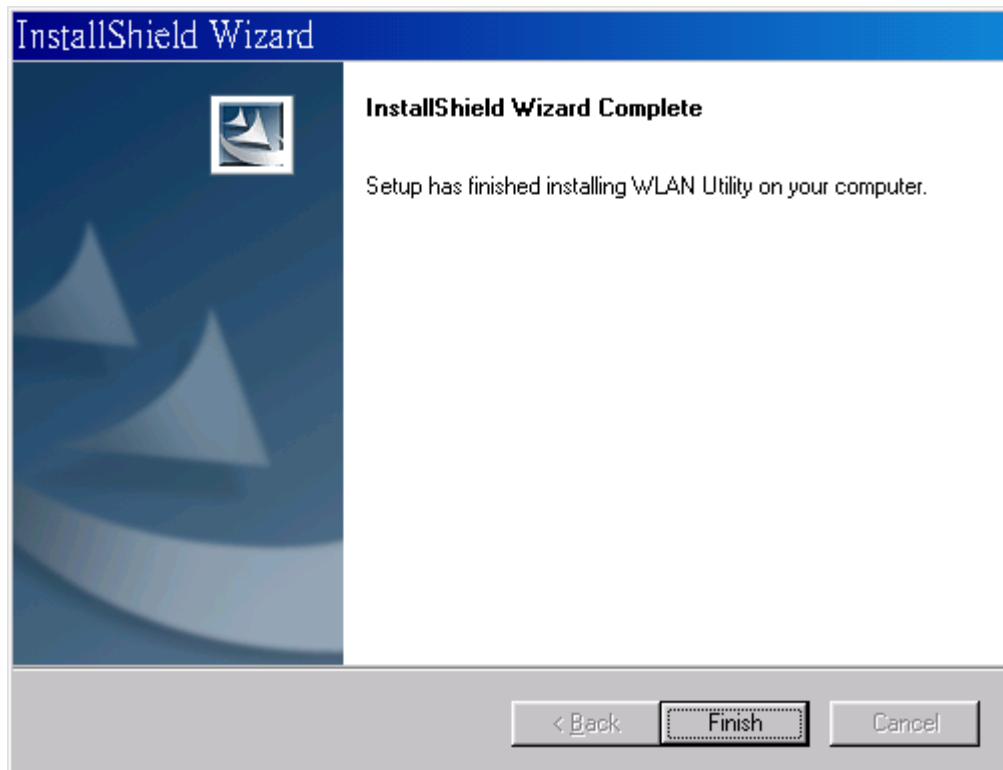
4. Click on the **Next** button. Enter a name for the program folder to put into the program folder list.

Figure 25



5. Click on the **Next** button. The InstallShield Wizard Complete screen will appear. Click on the **Finish** button. The installation is complete.

Figure 26



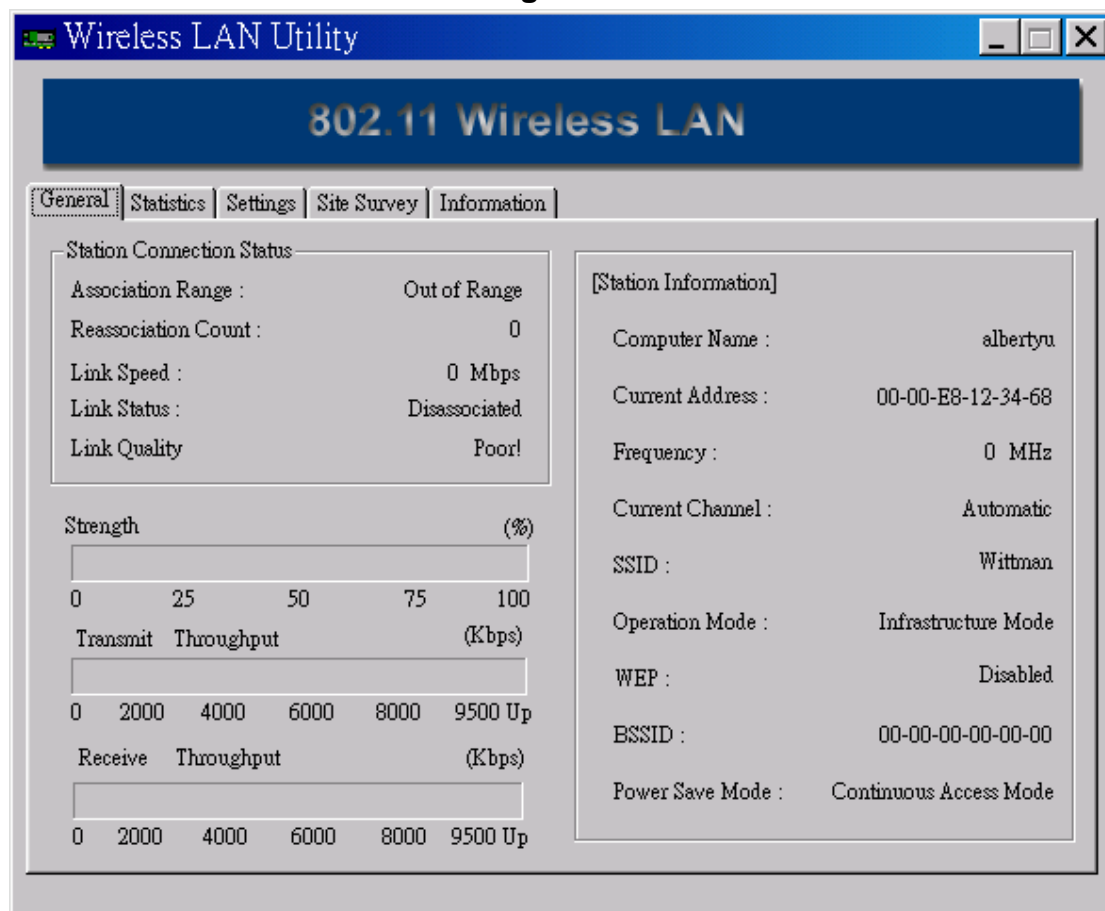
Utility Configuration

After setting up the WLAN Utility, run **WLAN App** in the directory you define to configure the Utility of the device. Follow these sections to set the parameters:

General Information

Click on **General** on the command list and a screen similar to the following will appear. This function shows the status of the device.

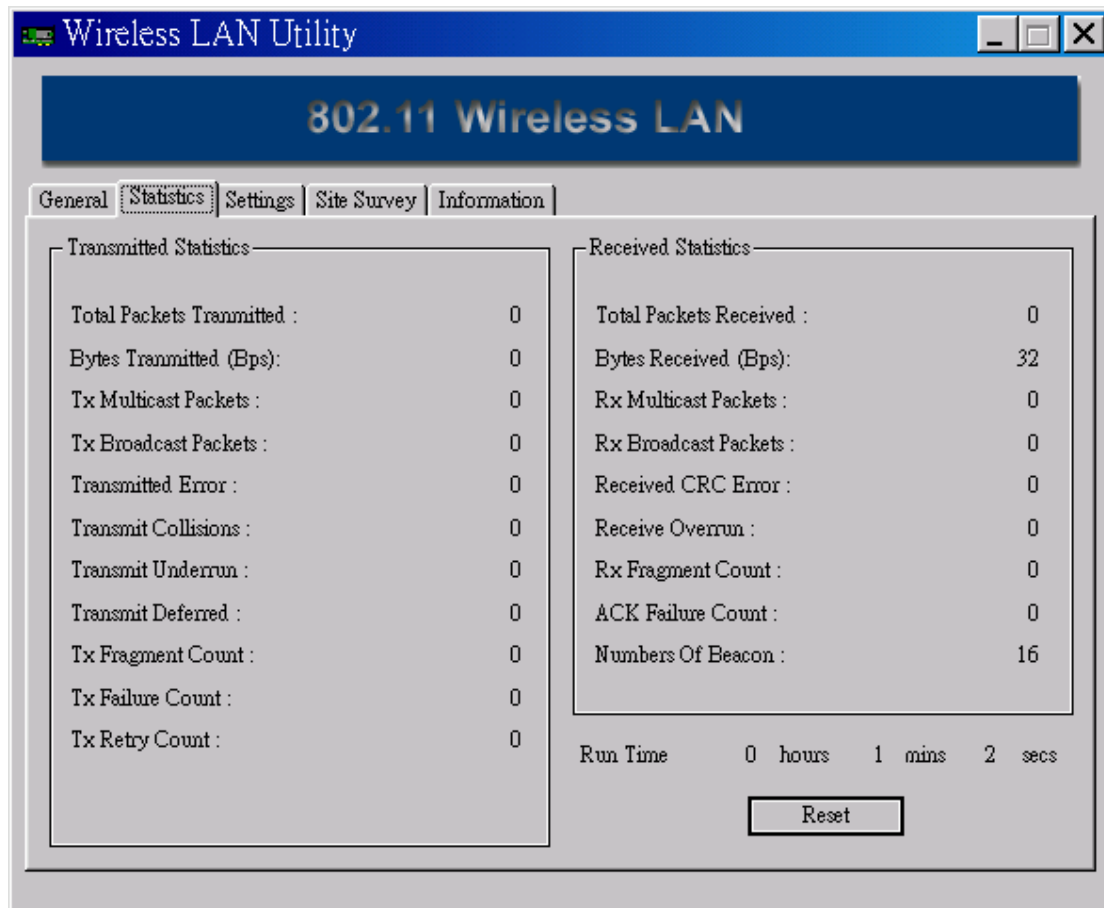
Figure 27



Statistics Parameters

If you want to view the statistics of the device, click on **Statistics** in the command list. If you want those values to be zeroed, click on **Reset** to re-estimate the statistics.

Figure 28



Settings Parameters

Do the following steps to configure the basic setting parameters:

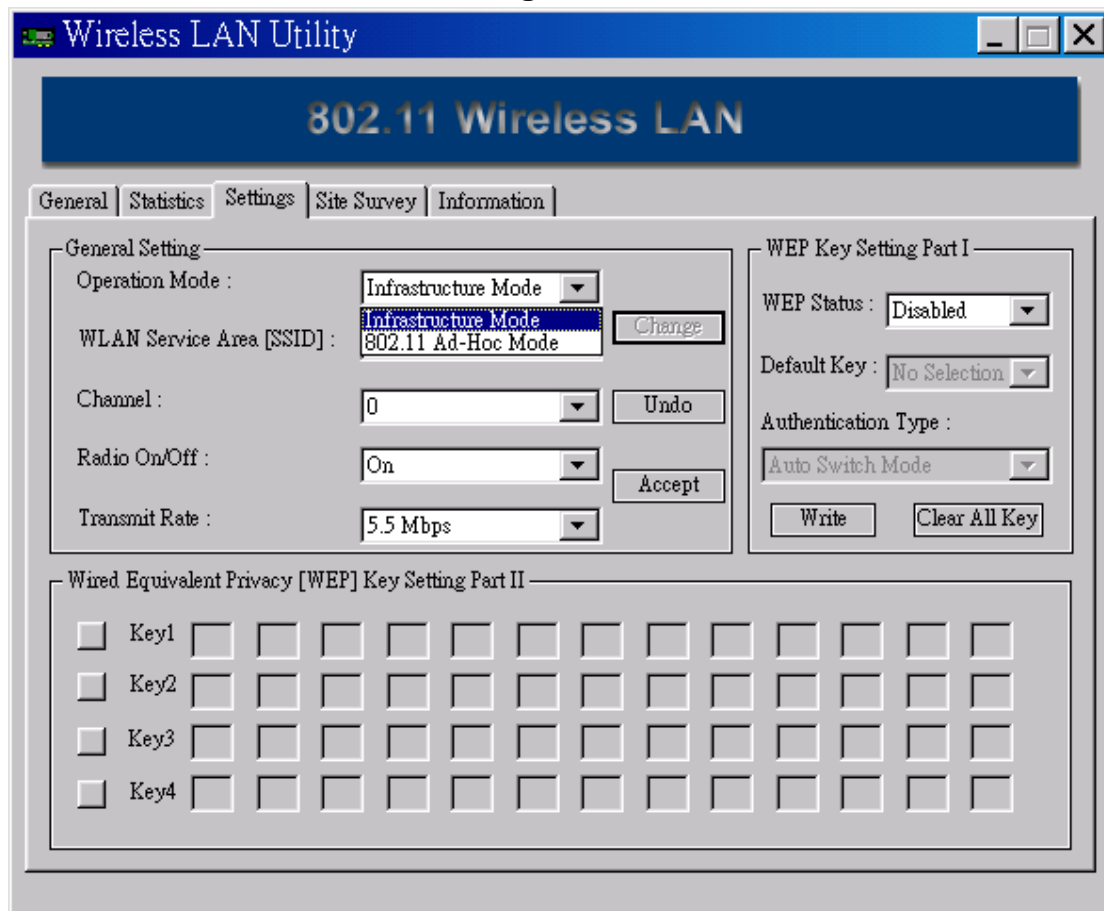
1. Click on **Settings** on the command list and a screen similar to the following will appear.

Figure 29

The screenshot shows a Windows-style application window titled "Wireless LAN Utility". The main title bar has standard minimize, maximize, and close buttons. Below the title bar is a dark blue header area with the text "802.11 Wireless LAN" in white. The main content area has a light gray background and contains several tabs: "General", "Statistics", "Settings" (which is selected), "Site Survey", and "Information". Under the "Settings" tab, there are two sections. The first section, "General Setting", includes fields for "Operation Mode" (set to "Infrastructure Mode"), "WLAN Service Area [SSID]" (set to "Wittman"), "Channel" (set to "0"), "Radio On/Off" (set to "On"), and "Transmit Rate" (set to "5.5 Mbps"). There are "Change", "Undo", and "Accept" buttons associated with these settings. The second section, "WEP Key Setting Part I", includes "WEP Status" (set to "Disabled"), "Default Key" (set to "No Selection"), and "Authentication Type" (set to "Auto Switch Mode"). There are "Write" and "Clear All Key" buttons at the bottom of this section. A third section, "Wired Equivalent Privacy [WEP] Key Setting Part II", is located below the others and contains four rows labeled "Key1", "Key2", "Key3", and "Key4". Each row has a checkbox followed by 16 small square input boxes for individual key bytes.

2. Click on the **Change** button. You can define **Operating Mode**, **SSID**, **Tx Rate**, **Radio**, and **Transmit rate**.
3. Click on the Operating Mode column. Select **Infrastructure** or **802.11 Ad-Hoc Mode** from the pull-down list.

Figure 30



4. Click on SSID column. Enter a new name for SSID to replace the old name.

- For Channel, select a channel from the drop-down list or select Auto to let the device select the channel automatically.

Figure 31

The screenshot shows a Windows-style application window titled "Wireless LAN Utility". The main title bar has standard minimize, maximize, and close buttons. Below the title bar is a dark blue header area with the text "802.11 Wireless LAN" in white. Underneath the header is a tabbed interface with five tabs: "General", "Statistics", "Settings", "Site Survey", and "Information". The "General" tab is currently selected. The "General Setting" section contains several controls: "Operation Mode" set to "Infrastructure Mode" with a dropdown arrow; "WLAN Service Area [SSID]" containing the text "Wittman" next to a "Change" button; "Channel" set to "0" with a dropdown arrow and an "Undo" button; "Radio On/Off" set to "Auto" with a dropdown arrow and an "Accept" button; and "Transmit Rate" set to "5.5 Mbps" with a dropdown arrow. To the right of these settings is the "WEP Key Setting Part I" section, which includes "WEP Status" set to "Disabled", "Default Key" set to "No Selection", and "Authentication Type" set to "Auto Switch Mode". At the bottom of this section are "Write" and "Clear All Key" buttons. Below the "General Setting" section is the "Wired Equivalent Privacy [WEP] Key Setting Part II" section, which features four rows labeled "Key1" through "Key4". Each row has a checkbox followed by a grid of 16 small input boxes for configuring individual WEP keys.

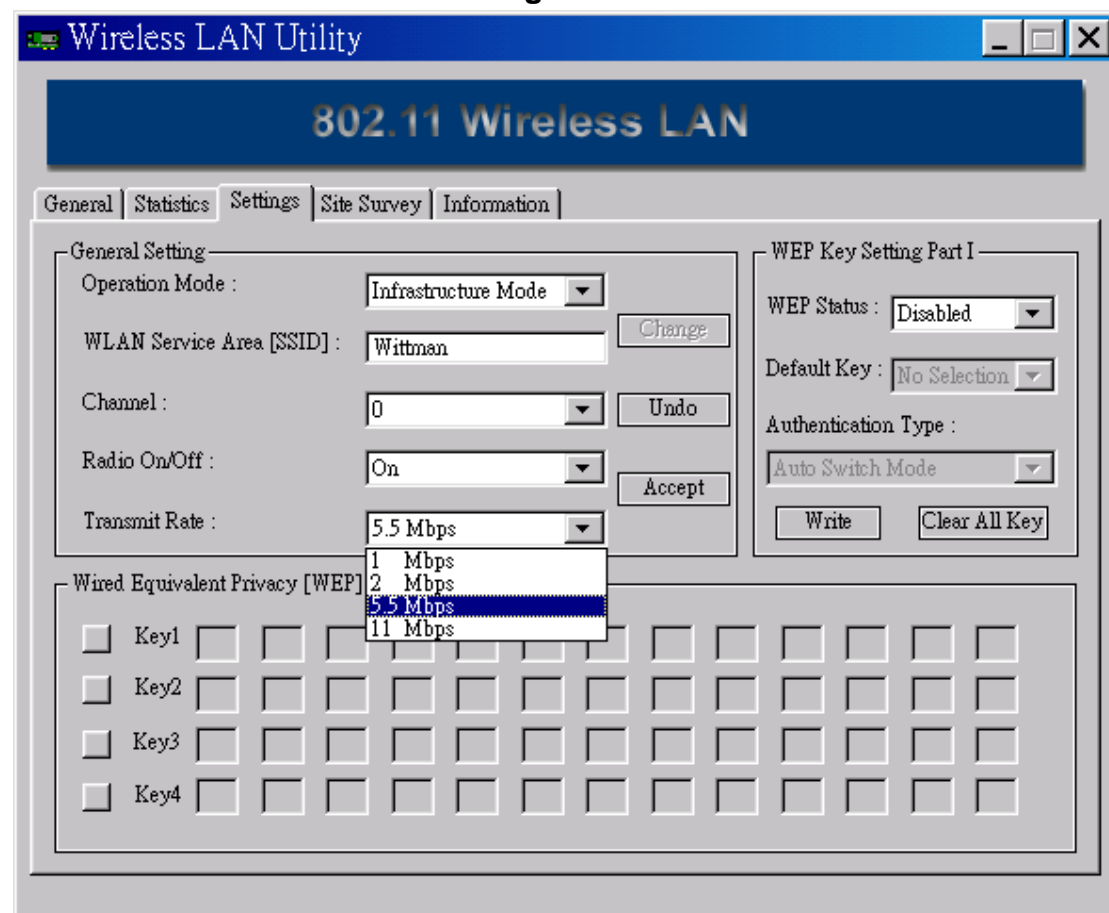
6. Click on the Radio column. Select **On** or **Off** from the pull-down list.

Figure 32

[illegible]

7. Click on Transmit Rate column. Select the transmitting rate for the adapter.

Figure 33



8. Click on **Accept** to save these changes or **Undo** to cancel these changes.

Encryption Parameters

Do the following procedures to set the parameters:

1. Click on the Encryption column. Select the encryption style you want to set or select **Disable** to disable encryption.

Figure 34

Wireless LAN Utility

802.11 Wireless LAN

General Statistics Settings Site Survey Information

General Setting

Operation Mode : Infrastructure Mode

WLAN Service Area [SSID] : Wittman

Channel : 0

Radio On/Off : On

Transmit Rate : 5.5 Mbps

WEP Key Setting Part I

WEP Status : Disabled

Default Key : WEP 64-bit
WEP 128-bit

Authentication Type : Auto Switch Mode

Write Clear All Key

Wired Equivalent Privacy [WEP] Key Setting Part II

<input type="checkbox"/> Key1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="checkbox"/> Key2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="checkbox"/> Key3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="checkbox"/> Key4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

- **The WEP keys (1 - 4):** are 10 heximal numerals for 64-bit WEP or 26 heximal numerals for 128-bit WEP in length and can be any numeric combination. However, these keys must be used identically for each point on your wireless Network.

2. For **WEP Key to use**, select a default key from the drop-down list column.

Figure 35

Wireless LAN Utility

802.11 Wireless LAN

General | Statistics | Settings | Site Survey | Information

General Setting

Operation Mode : Infrastructure Mode

WLAN Service Area [SSID] : Wittman

Channel : 0

Radio On/Off : On

Transmit Rate : 5.5 Mbps

WEP Key Setting Part I

WEP Status : WEP 128-bit

Default Key : No Selection

Authentication : Key 1

Auto Switch : Key 2

Key 3

Key 4

No Selection

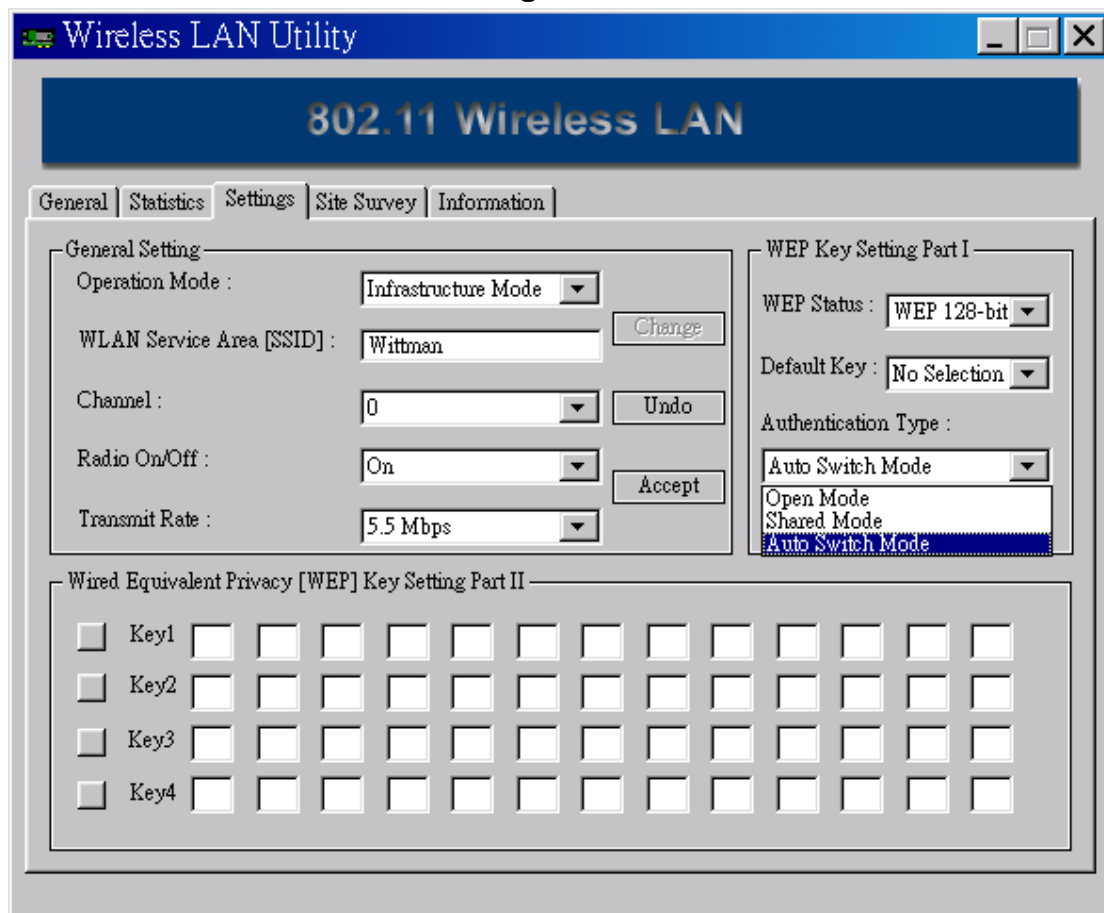
Write Clear All Key

Wired Equivalent Privacy [WEP] Key Setting Part II

	Key1	Key2	Key3	Key4
>>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

3. For **Authentication Type**, select a mode from the drop-down list column.

Figure 36

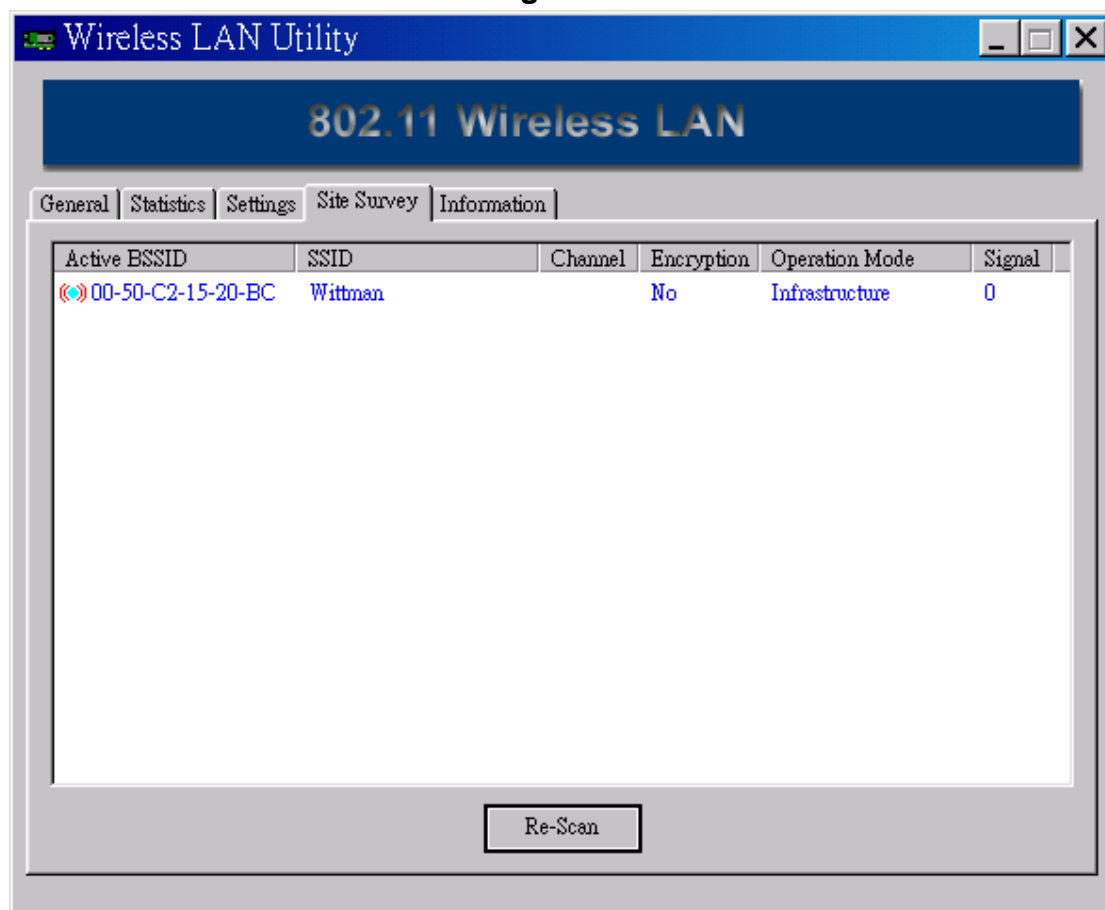


4. Click on the **Write** button to save these changes. Alternatively, you can click on **Clear All Keys** to abandon these changes.

Site Survey

Click on the Site Survey from the command list. A screen similar to the following will appear. This function will show all available sites for the device. You can click on **Re-Scan** button to re-scan the sites.

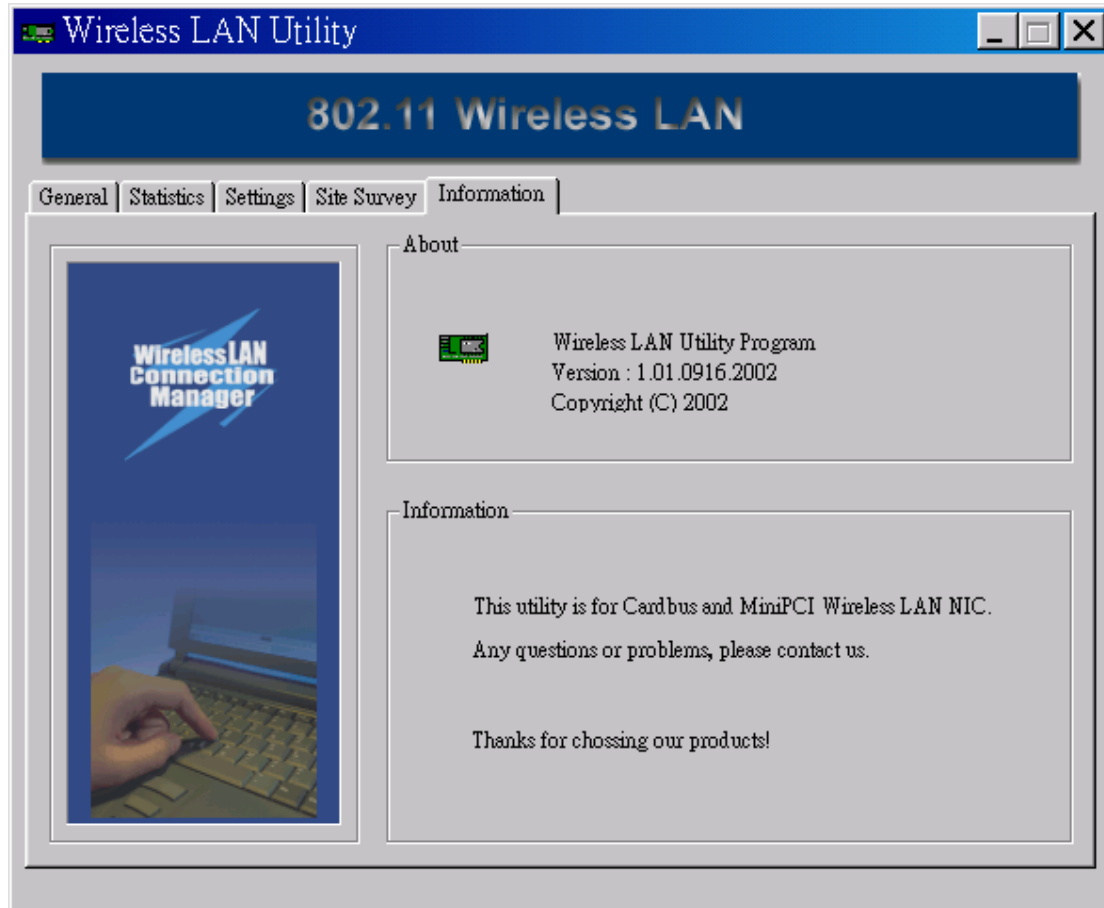
Figure 37



Information

If you want to obtain the information about the device, click on Information from the command list. The read-only page will appear, showing the version and brief information about the device.

Figure 38



Specifications

Standards	IEEE 802.11b, All major networking standards (including TCP/IP , IPX)
Operating Frequency	2400 ~ 2500MHz ISM band
Modulation Schemes	DQPSK, DBPSK and CCK
RF Technology	Direct Sequence Spread Spectrum
Spreading	11-chip Barker Sequence
Channel Numbers	11 channels for United States 13 channels for Europe Countries 14 channels for Japan
Data Rate	11M/5.5M/2M/1Mbps
Media Access Protocol	CSMA/CA with ACK
Transmitter Output Power	Typical 16dBm
Receiver Sensitivity	Typical -80dBm for 11Mbps @ 8% PER (Packet Error Rate)
Antenna Type	Internal antennas*2
Operating Voltage	3.3VDC +/- 10%
Certification	FCC, CE
LED Indicators	As attached
PC Interface	Cardbus Interface
Connector Type	68 pins cardbus connector

Environmental Specifications

Dimension	L x H x W (117 mm X 5 mm X 54 mm)
Unit Weight	41g
Operating Temperature	0°C to 55°C (32°F to 131°F)
Storage Temperature	-40°C to 75°C (-40°F to 167°F)
Operating Humidity	10% to 95% relative humidity, non-condensing
Storage Humidity	5% to 95% relative humidity, non-condensing

Standard Conformance

EMC Certification	FCC Class B, CE
--------------------------	-----------------