

# *Wireless 11b CardBus Card*

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*User's Guide*

## ***FCC Caution***

1. The 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, and
  - (2) This device must accept any interference received, including interference that may cause undesired operation.
2. FCC RF Radiation Exposure Statement: The equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.
3. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
4. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.

## ***Trademarks***

Microsoft Windows and Internet Explorer are registered trademarks or trademarks of Microsoft Corporation.

All brand names, icons, and trademarks used in this manual are the sole property of their respective owners.

## ***Revision History***

Revision	History	Date
V2.0	First Release	November 2003

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## ***Important Safety Precautions***

Always read and follow these basic safety precautions carefully when handling any piece of electronic component.

1. Keep this User's Manual for future reference.
  2. Keep this equipment away from humidity.
  3. Lay this equipment on a reliable flat surface before setting it up.
  4. The openings on the enclosure are for air convection hence protects the equipment from overheating.
  5. All cautions and warnings on the equipment should be noted.
  6. Never pour any liquid into the opening that could damage or cause electrical shock.
  7. If any of the following situations arises, get the equipment checked by a service personnel:
    - Liquid has penetrated into the equipment
    - The equipment has been exposed to moisture
    - The equipment has not work well or you can not get it work according to User's Manual
    - The equipment has dropped and damaged
    - If the equipment has obvious sign of breakage
  8. **DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT UNCONDITIONED, STORAGE TEMPERATURE ABOVE 60°C OR BELOW -20°C, IT MAY DAMAGE THE EQUIPMENT.**
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## *How to Use This Guide*

This User's Guide provides instructions and illustrations on how to install and use your Wireless 11b CardBus Card.

- ❶ Chapter 1, **Introduction**, provides a general information on the product you bought, including its application, specification, and requirements.
- ❷ Chapter 2, **Hardware Installation**, tells you how to install the product into your system.
- ❸ Chapter 3, **Software Installation**, guides you through the installation of the product's driver and utility.
- ❹ Chapter 4, **Wireless Network Utility**, describes the Wireless Network Utility that lets you configure your product to connect the network quickly and easily.
- ❺ Chapter 5, **The Software AP**, the powerful utility that allows your wireless adapter to serve as a virtual access point.
- ❻ Appendix, **Networking Basics**, helps you to build your network and share resources over the network.

Please note that the setting diagrams or values in this guide are **FOR YOUR REFERENCE ONLY**. The actual settings and values depend on your system and network. If you are not sure about these information, please ask your network administrator or MIS staff for help.

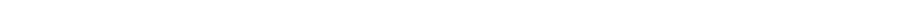
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# 1

## Introduction

### >>> 1.1 Wireless 11b CardBus Card

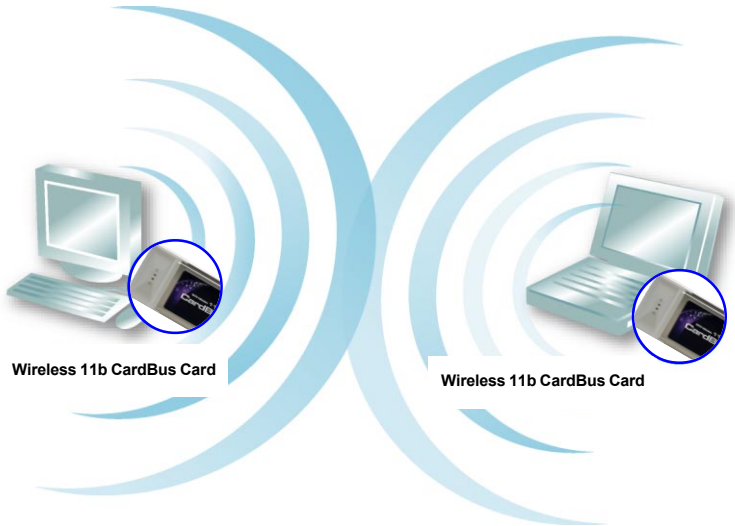
Compliant with IEEE802.11b, the **Wireless 11b CardBus Card** (hereafter called wireless adapter) is a high-efficiency wireless adapter for wireless networking at home, in office or in public places. The data transfer rate can be auto-negotiated to 1, 2, 5.5Mbps or up to 11Mbps, and is compatible with any existing IEEE802.11b devices.

With the wireless adapter, you can roam between conference room and office without being disconnected the LAN cables; in addition, sharing files and printers can be easy tasks.

The wireless adapter is available to Microsoft Windows operating systems (Windows® XP/2000/ME/98SE) and can be integrated into networking with either **Ad-hoc mode** (computer-to-computer, without an Access Point) or **Infra-structure mode** (computer-to-access point, an Access Point is required).

## >>> 1.2 How Wireless Adapter Works

**Q Ad-hoc Mode :** An Ad-hoc network is a local area network or other small network, especially one with wireless or temporary plug-in connections, in which some of the network devices are part of the network only for the duration of a communications session. Users in the network can share files, print to a shared printer, and access the Internet with a shared modem. In this kind of network, new devices can be quickly added; however, users can only communicate with other wireless LAN computers that are in this wireless LAN workgroup, and are within range.





**Infrastructure Mode** : The difference between Infrastructure network and Ad-hoc network is that the former one includes an Access Point. In an Infrastructure network, the Access Point can manage the bandwidth to maximize bandwidth utilization. Additionally, the Access Point enables users on a wireless LAN to access an existing wired network, allowing wireless users to take advantage of the wired networks resources, such as Internet, email, file transfer, and printer sharing. The scale and range of the Infrastructure networking are larger and wider than that of the Ad-hoc networking.



## >>> 1.3 Specifications

### **Hardware Specifications**

#### **Compliant Standards**

- IEEE802.11b

#### **Form Factor and Operation voltage**

- CardBus
- 3.3V

#### **Antenna**

- Internal diversity

#### **Security Mechanism**

- Hardware-based WEP Privacy

#### **Operational Environment**

- Operational Temperature: 0~55°C
- Humidity: 0~95% (Non-Condensing)

#### **Weight and Dimension**

- Weight: 40g
- Dimension: 115 X 54 X 7mm

### **Radio Frequency Specifications**

#### **Raw Data Rates and Modulation Types**

- IEEE802.11b (Auto-Fallback)
  - CCK: 11 and 5.5Mbps
  - DQPSK: 2Mbps
  - DBPSK: 1Mbps

#### **Communication Protocol**

- DSSS (Direct Sequence Spread Spectrum) with ACK
- Half-Duplex

#### **Access Method**

- Infrastructure Mode: Station-To-LAN Architecture
- Ad-Hoc Mode: Station-To-Station Architecture

**Frequency, Bandwidth, and Channels**

- 2.4~2.4835GHz Frequency Band
- 13 Channels
- Maximum 3 Non-Overlapped Channels
- 25MHz Bandwidth Per Channel

**Transmitter Output Power**

- Output Power: 17±1dBm

**Wireless Coverage**

- Up to 100m (indoor)

**📍 Software Specifications**

**Security Mechanism**

- 64-/128-bit WEP Key

**Authentication Mechanism**

- Open Authentication (Default)
- Shared-Key Authentication

**Operating System**

- Microsoft® Windows® 98SE/ME/2000/XP

## >>> 1.4 System Requirements

Before installing the wireless adapter, your PC should meet the following:



- Notebook PC with PC Card slot, or desktop PC with PC Card slot module.



- Windows® 98SE/ME/2000/XP operating system.



- Minimum 5MB free disk space for installing the driver and utilities.



- CD-ROM drive, double speed or higher.

## >>> 1.5 Package Contents

Unpack the package and check all the items carefully. If any item contained is damaged or missing, please contact your local dealer as soon as possible. Also, keep the box and packing materials in case you need to ship the unit in the future. The package should contain the following items:



- One Wireless 11b CardBus Card.



- One Quick Start Guide.



- One software CD-ROM including drivers, utilities, User's Guide and Quick Start Guide.

## >>> 1.6 Product View

**Power LED** - Solid **GREEN**, indicating that the wireless adapter is power on.



**Link LED** - **GREEN**, indicating the networking status by:  
ON - The wireless adapter is connected.  
Flash - The wireless adapter is searching for available Access Point or receiving/transmitting data over the wireless network.

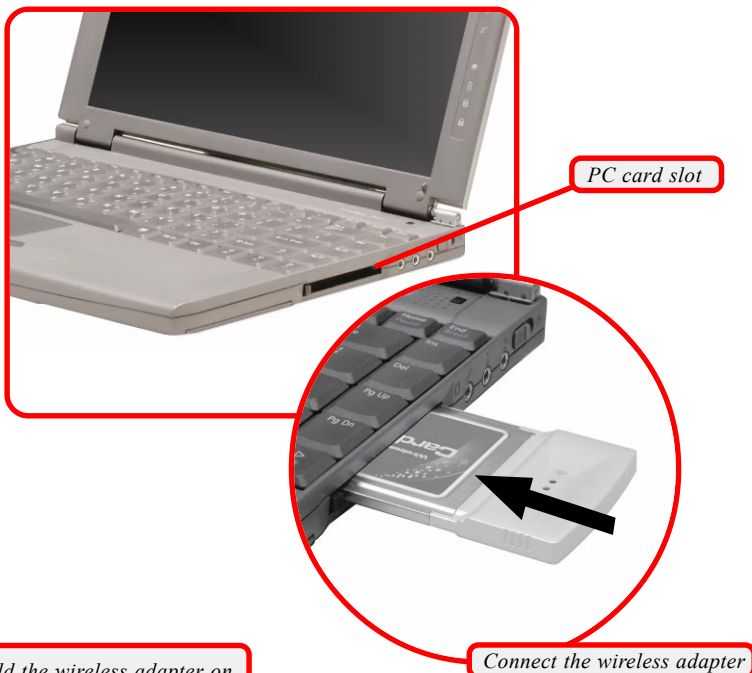
Golden Finger

# 2 Hardware Installation

The following diagrams provide you with the basic installation for the wireless adapter, including how to install and remove the PC card.

## >>> 2.1 Connecting the Wireless Adapter

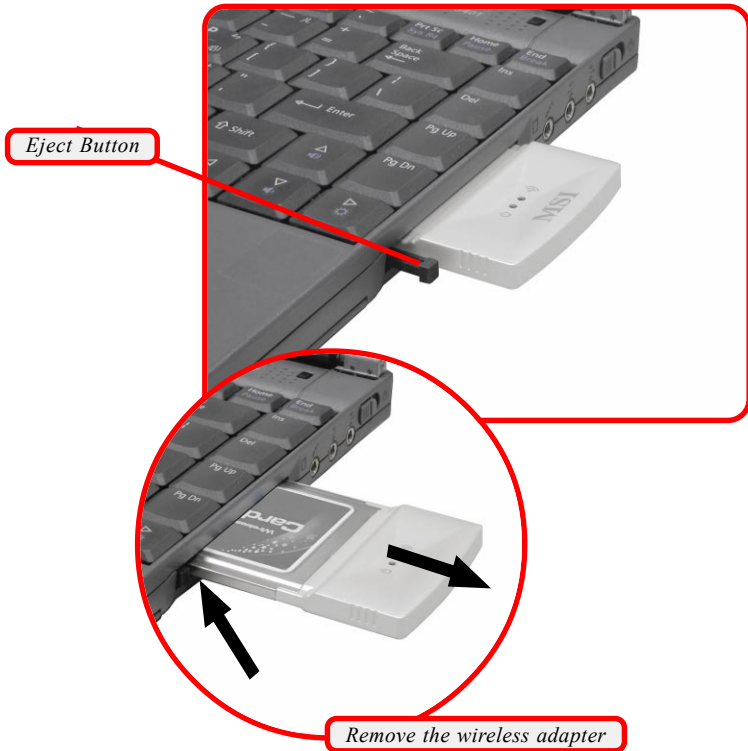
Locate the PC card slot on your notebook computer. If there is the dummy card in the slot, remove it first; then, insert the wireless adapter into the slot (usually with its label facing up) and push it until it is firmly seated.



**DO NOT** hold the wireless adapter on the golden finger when installing it; otherwise, it may cause interference or damage.

## >>> 2.2 Removing the Wireless Adapter

Press the Eject Button to make it stretch out. Push the Eject Button and the wireless adapter will slide out slightly. Then, pull it out of the slot.



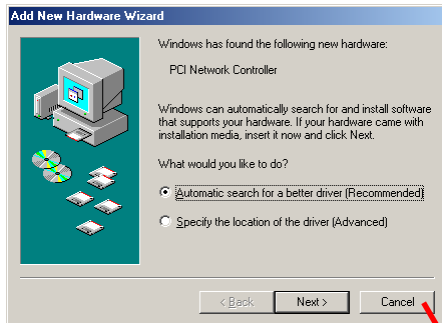
*Before removing the wireless adapter, you should stop the device in Windows operating system.*

# 3 Software Installation

This chapter describes the procedures of installing the driver and utility. Follow the instruction step by step to finish the installation. If you use Windows® 98SE/ME, please prepare the Windows® Setup CD at hand before installing the driver; because the system will ask you to insert the Setup CD to copy files during the installation.

Please **NOTE** that the wireless adapter should be installed into your computer before installing the driver and utility. Then, turn up the computer, and the operating system will detect a new device and start to configure the new device. Click **Cancel** here to start installation from the InstallShield Wizard.

*Tip: The card should be installed into your computer before installing the driver and utility.*

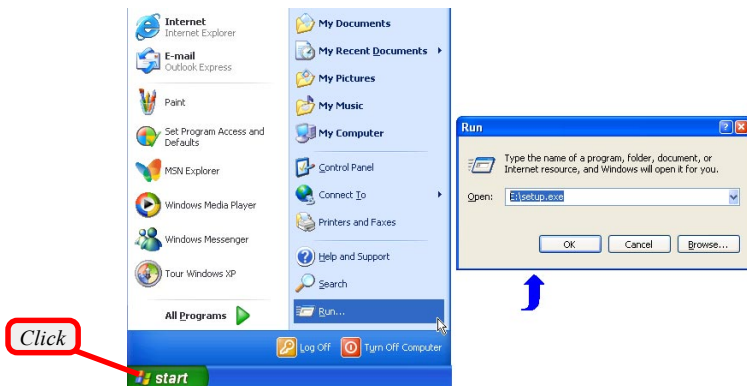


Click



- Step 1.** Insert the software CD into your CD-ROM drive, and the Setup program should launch automatically.

If the Autorun program doesn't launch automatically, click **Start** at the taskbar and select **Run....** Type **E:\setup.exe** in the Open box and click **OK** (where **E** is your CD-drive) to launch the Setup program manually.



The main screen of Setup program will appear as below. Click the **Install Software** button.



**Step 2.** The welcome screen of InstallShield Wizard appears, click **Next**.

Read the License Agreement; then, select **I accept the terms in the license agreement** option and click **Next**.

In the following window, enter the user's information (User Name and Organization) in the respective fields; then, click **Next**.

**Step 3.** Click **Install**, and the program will copy the necessary files to the system. The progress indicator shows the installing status.

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***Tips:** If you use Windows 98SE/ME, you may be asked to insert the Windows Setup CD during the installation. Please insert the Setup CD by the on-screen instruction to continue the installation.*

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**Step 4.** Click **Finish** when the installation is completed. The **Wireless LAN icon\*** will appear in the status area.

*\* For more information of the Wireless LAN icon, please see section 4-1.*



*Wireless LAN icon*




# 4

## Wireless Network Utility

### >>> 4.1 Introduction


After installing the driver, the wireless adapter provides a convenient and powerful Wireless Network Utility, allowing you to set up, configure, and know your networking status easily and clearly.

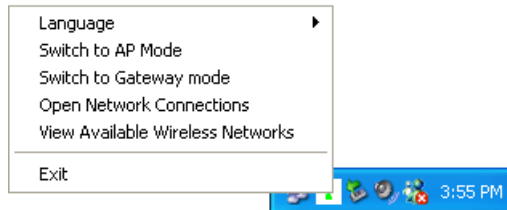
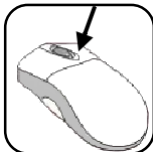
#### 4.1.1 The Wireless LAN Icon

-  - Not connected to the network.
-  - Connected to the network.
-  - Receiving/transmitting data from/to the network.

When you move the mouse over the icon, it shows the current connection information.



-  **Right-clicking** the icon will bring up a shortcut menu containing more settings:



### Language

You can select language according to your operating system.

### Open Network Connections

Select to open the Network Connections window.

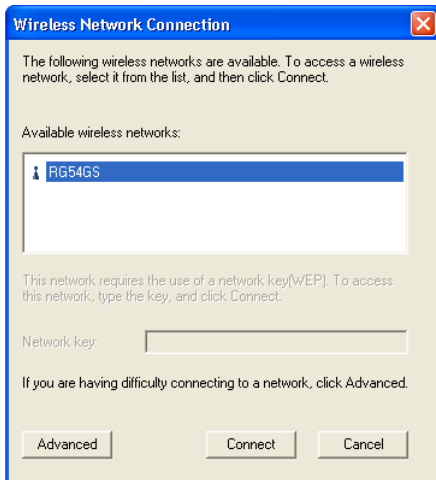
### View Available Wireless Networks

Launch the utility to configure your network settings.

### Exit

Close the program.

- **Clicking** the icon will launch the utility as shown below to configure your network settings.

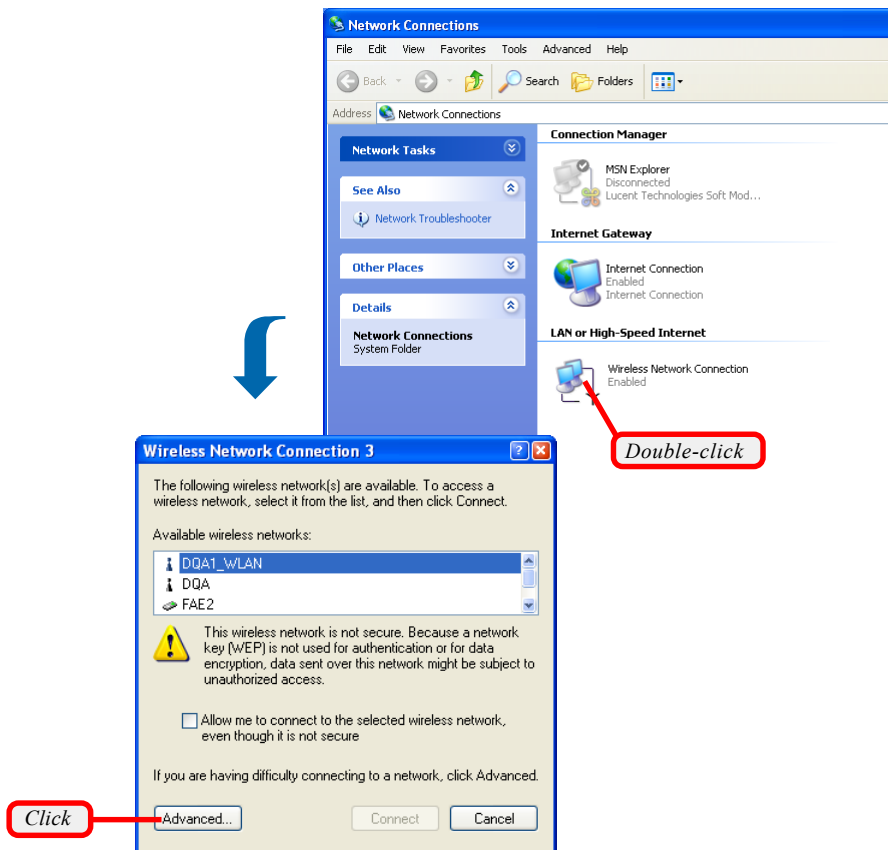


### 4.1.2 Changing the Control Setting (for Windows XP only)

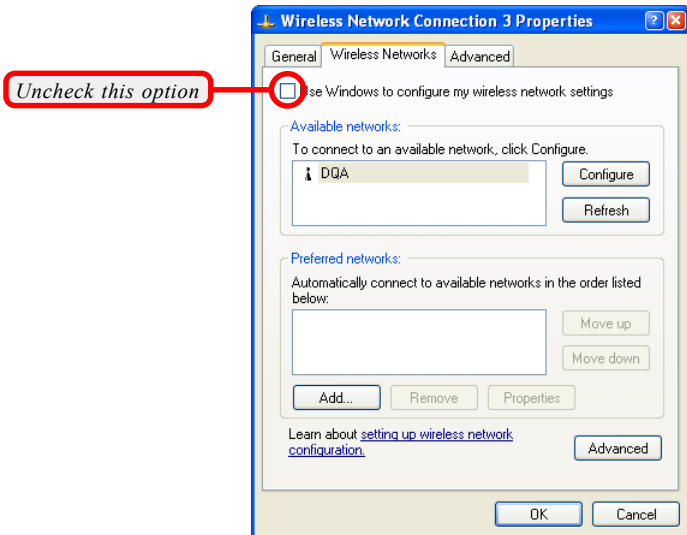
If you use Windows XP, the wireless LAN is controlled by the operating system (default). To take full advantage of your wireless adapter, it is recommended to use the Wireless Network Utility to control your wireless LAN.

To change the control setting:

1. Right-click the Wireless LAN icon and select **Open Network Connections** option.
2. In the **Network Connections** window, double-click the Wireless Network Connection icon to bring up the following dialog window.



3. Click **Advanced**, and the **Properties** window will appear as below.



4. Uncheck **Use Windows to configure my wireless network settings** option. Then, click **OK**.
5. Now, you can use Wireless Network Utility to configure your network.

## >>> 4.2 Networking

Since the wireless adapter is installed in your computer, you have to configure the settings for communication to start working in your network environment.

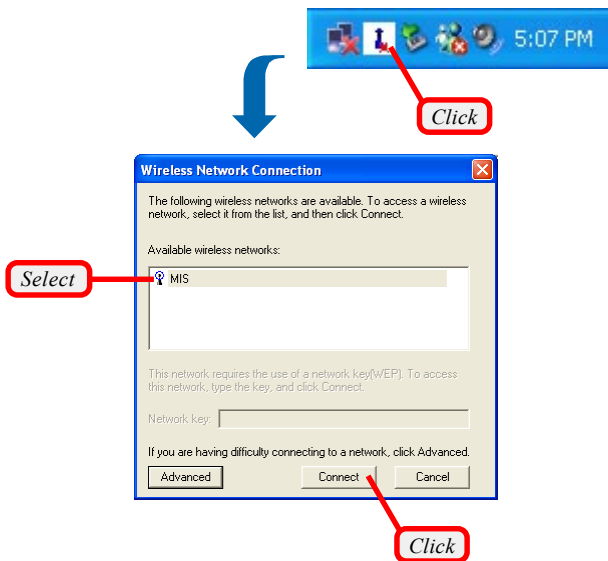
### 4.2.1 Infrastructure Mode

Infrastructure mode allows your computer to communicate with the other computers in the network through an Access Point. The following tasks should be done before you configure the settings:

- The Access Point must be turned on.
- Your computer with wireless adapter installed and the Access Point must be located with the communication range of the Access Point (see the Access Point's manual for details).

Connecting to the Access Point:

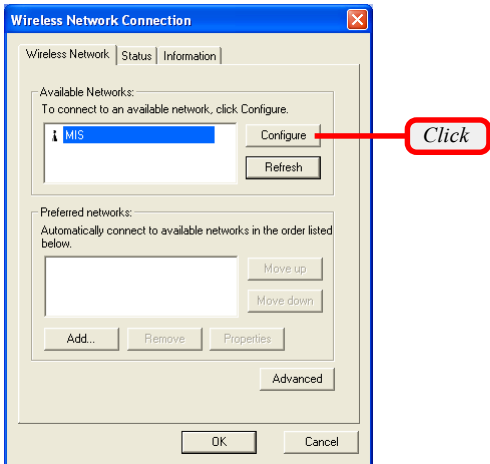
1. Click the Wireless LAN icon to bring up the Wireless Network Connection window.



2. In the list of Available wireless networks, select (highlight) the network you want, and then click **Connect**.

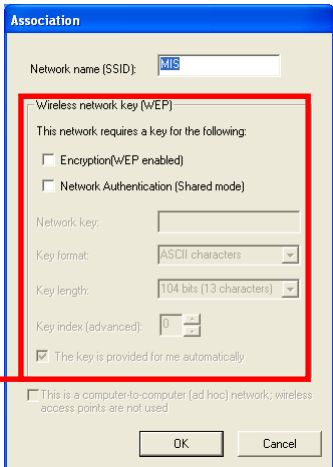
If you want to configure the network settings:

1. Click **Advanced** in the Wireless Network Connection window.
2. The Available Networks field contains a list of available Access Points in your network. Select (highlight) one network you want, and then click **Configure** to set up the selected network. You can click **Refresh** to search the available Access Points in the network again.



3. Setup the Network Key (if needed) in the Wireless Network Key (WEP) field according to the network's settings.

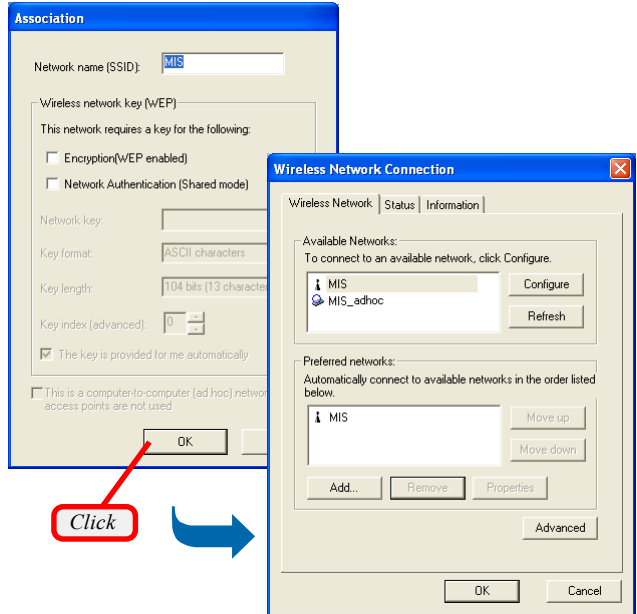
*Only the network administrator can change the SSID and WEP settings in the Association window; if you have problem of accessing the network, please ask the administrator for help.*



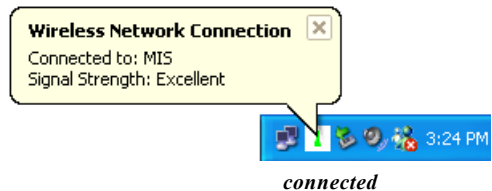
**WEP settings**



- Click **OK**. The selected network will appear in the Preferred Networks field. If it contains two or more networks in the list, you can use **Move up/Move down** to set the priority.



- Click **OK** to complete the configuration, and an icon indicating connected to the network will appear in the status area.



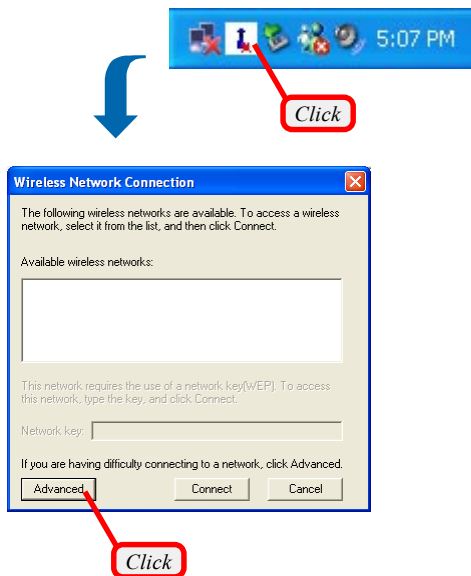
### 4.2.2 Ad-hoc Mode

Ad-hoc mode allows your computer to communicate directly with any computer installed with compatible wireless NIC. If you want to use the network in Ad-Hoc mode:

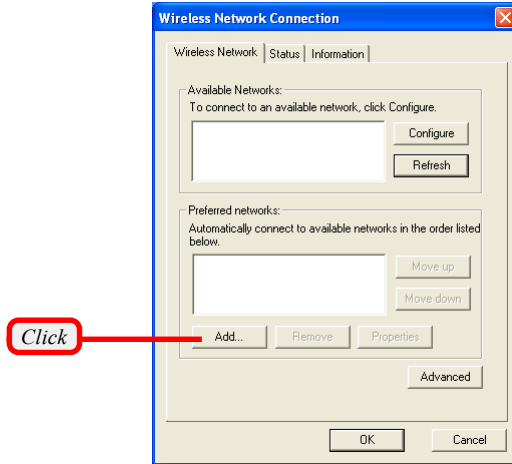
- All the computers connected should be set to Ad-hoc mode.
- The computers have the same SSID (network name) setting.

To configure the settings:

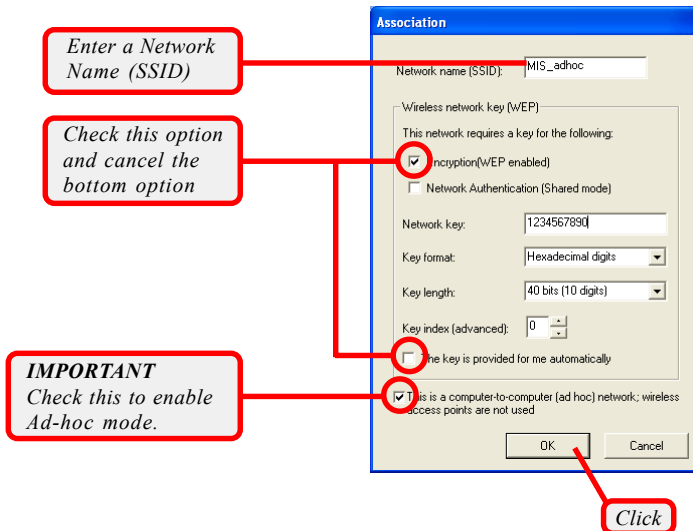
1. Click the Wireless LAN icon to bring up the Wireless Network Connection window. Then, click **Advanced**.



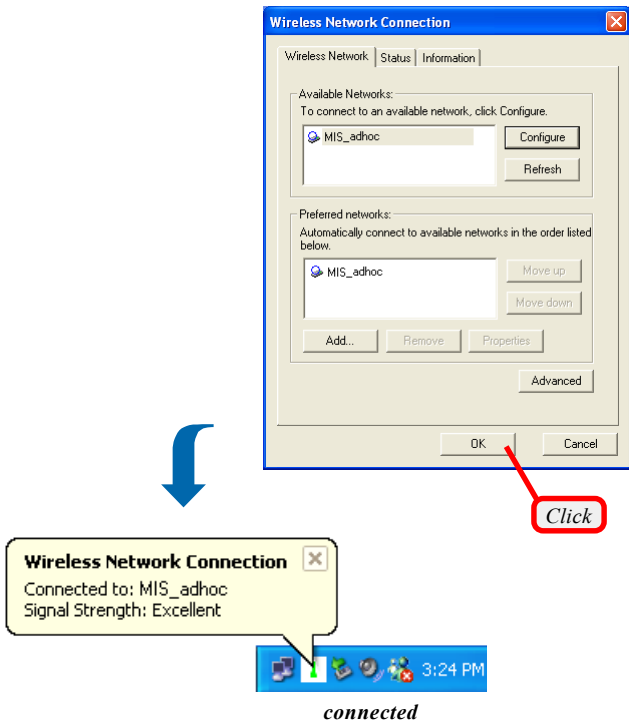
2. You can build up the Ad-hoc network by clicking **Add...** in the Preferred Networks field.



3. Set up the Network Name (SSID) and Network Key (if needed) for the network. Then, check the **"This is a computer-to-computer [ad hoc] network; wireless access points are not used"** option and click **OK** to enable the Ad-hoc mode.



4. The Ad-hoc network will appear in the Available Networks field. Click **OK**, and an icon indicating connected to the network appears in the status area.

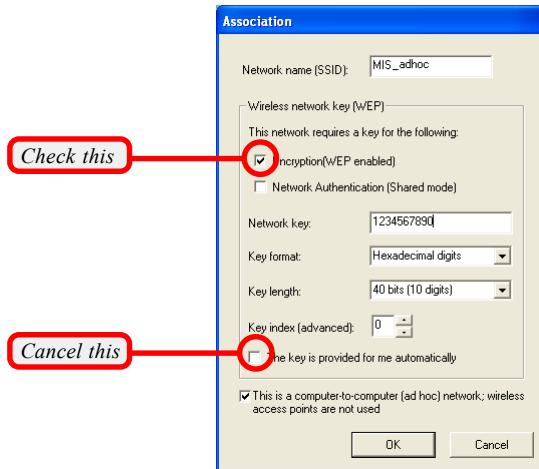


5. The computer set up with this Ad-hoc network in **step 3** is the designated administrator of the network. Any computer can access the network by selecting **Connect** in the Wireless Network Connection window.

## >>> 4.3 Encryption

To setup the Network Key, check **Encryption** option first, then cancel **The key is provided for me automatically** option.

In the wireless network environment, the administrator can set up password (Network Key) to protect the network from being attacked or unauthorized access. When building the network, you can set up 4 sets of WEP keys, which can be 5 characters (10 hex-adecimal digital) or 13 characters (26 hex-adecimal digital) and specify one of them to use.



### Network key

Enter a key for the network.

### Key format

You can decide the network key to be encoded by ASCII characters or hexadecimal digitals.

### Key length

In ASCII characters format, it can be 5 or 13 characters. In hexadecimal digitals format, it would be 10 or 26 digitals.

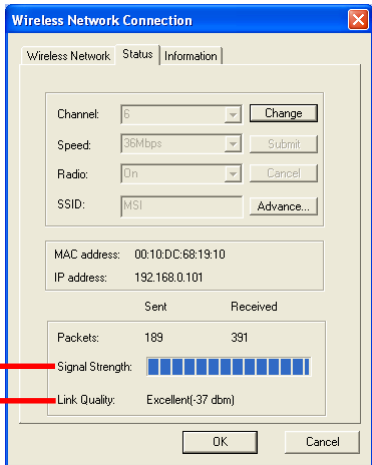
### Key index

There can be up to 4 sets of WEP key (1~4). The 4 sets of WEP key must have the identical sequence with the key settings on the Access Point.

## >>> 4.4 Status

In the **Status** tab, you can configure more network settings.

**Signal Strength:**  
shows the received signal strength level.  
**Link Quality:**  
shows the measured signal level and connection status.



### Channel

Specifies the operating radio frequency channel in Ad-hoc mode, which should be set to the same channel as the other points in the wireless network.

### Speed

This field sets the current transmitting rate. The speed should be set to *Auto* rate to optimize performance and range, which will adjust the transfer speed for best performance and longest range automatically.

### Radio

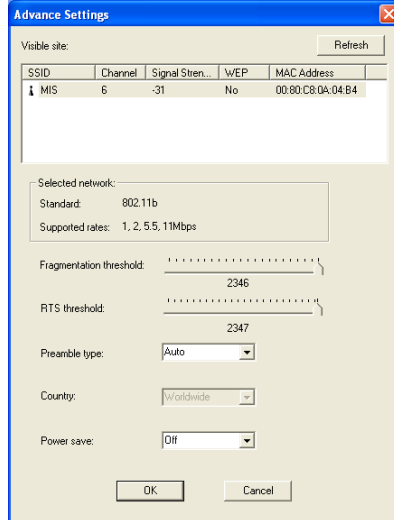
Set to **On** to activate the radio.

### SSID

Means Service Set Identifier, a unique name shared among all points in a wireless network. It must be identical for all points in the network. Then the card will be able to connect to an access point with the same SSID.

Click **Advance**, and you can get more information about the LAN traffic status and more detailed settings.

*It is not recommended to change these settings if you are not familiar with the advanced configuration.*



### Fragmentation Threshold

You may set the length of the fragment in this field. Please note that each fragment should not be larger than the Fragmentation Threshold.

### RTS/CTS Threshold

You may set the length threshold.

### Preamble Type

You may set the length of preamble in this field. Setting options are: **Long** - it is set to 144 bits.

**Short** - it is set to 72 bits. **Auto** - The card supports an auto-detection feature, it automatically selects the **Preamble Type** depending on the Access Point Preamble Type if this option is selected.

### Country

From the pull-down list, select one option according to the location you are in\*.

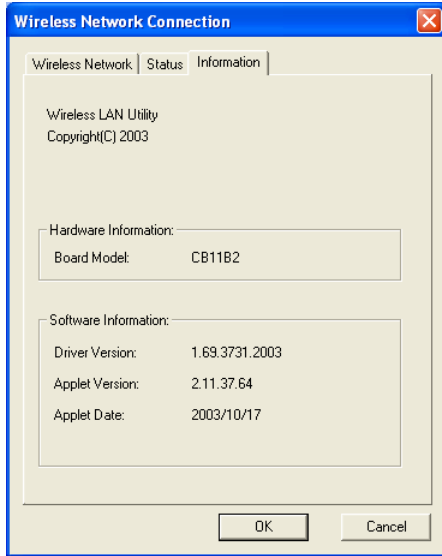
### Power save

The card will turn into power save mode when idle.

* Country	Channel
USA	1 - 11
Canada	1 - 11
Europe	1 - 13
Spain	10 - 11
France	10 - 13
Japan	1 - 13
Israel	3 - 9

## >>> 4.5 Information

In the **Information** tab, you can get some information about the manufacturer, hardware and software.





# 5 The Software AP

## >>> 5.1 Installing the Software AP

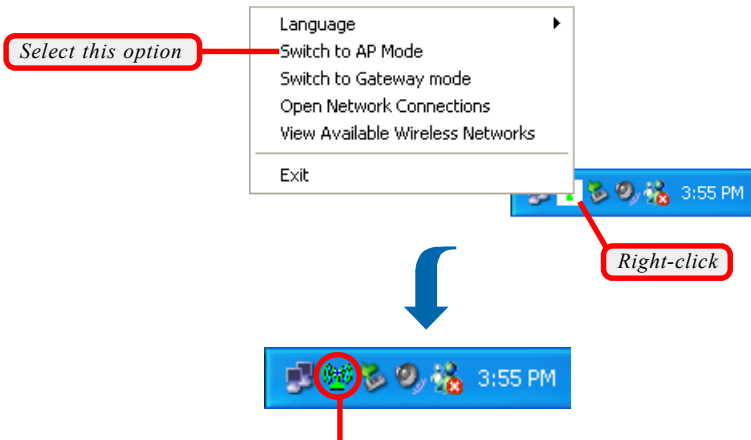
To use the Software AP, you must install the driver and utility for your MSI wireless adapter. When you install the driver and utility successfully, you can see the **Wireless LAN** icon appears in the status area.



*Wireless LAN icon*

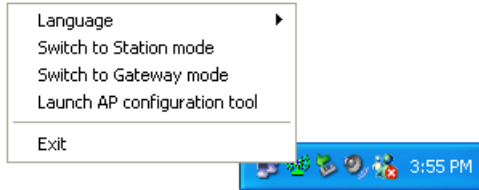
## >>> 5.2 Launching the Software AP

To enable the Software AP, right-click the MSI Wireless LAN icon and select **Switch to AP Mode** option. The MSI Wireless LAN icon will change to **Software AP Controller** icon.



*Software AP Controller icon*

Right-click the **Software AP Controller** icon to bring up a sub-menu containing more settings.



**Language**

Choose a language according to your operating system.

**Switch to Station mode**

Select to switch to the adapter's normal function and disable the Software AP mode.

**Switch to Gateway mode**

Select to switch to Software Gateway mode.

**Launch AP configuration tool**

Launch the Configuration Utility to configure the network settings.

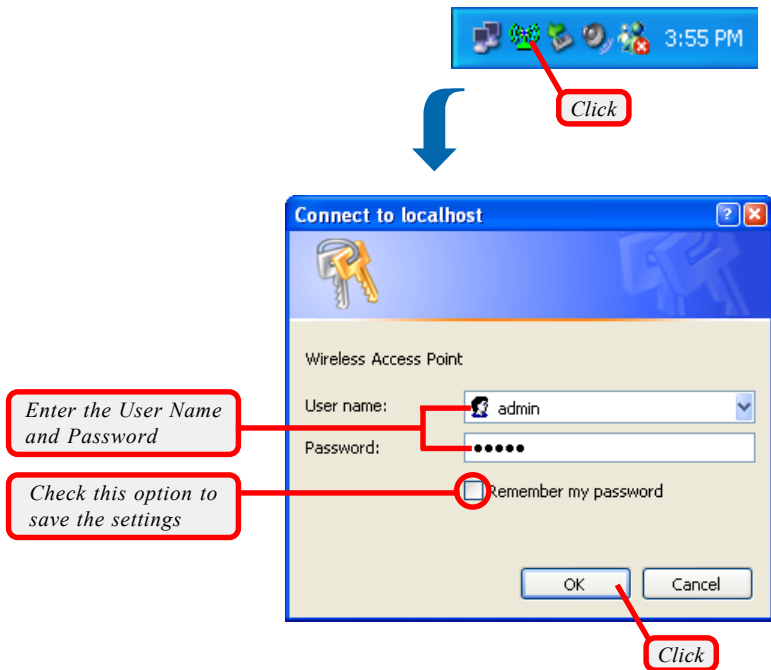
**Exit**

Close the program.

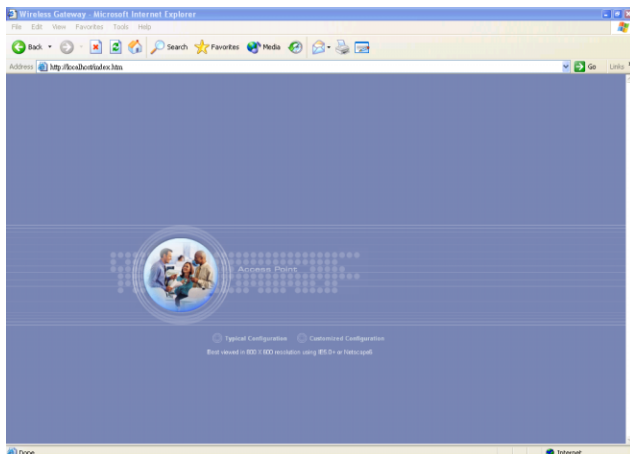
### >>> 5.3 Configuring the Software AP

When the Software AP is enabled, click the icon to launch the Configuration Utility (or right-click to select **Launch AP configuration tool** option).

First, enter the user's information in the **Connect** dialog box. By default, the User Name is **admin** and the Password is **admin**. Then, click **OK**.



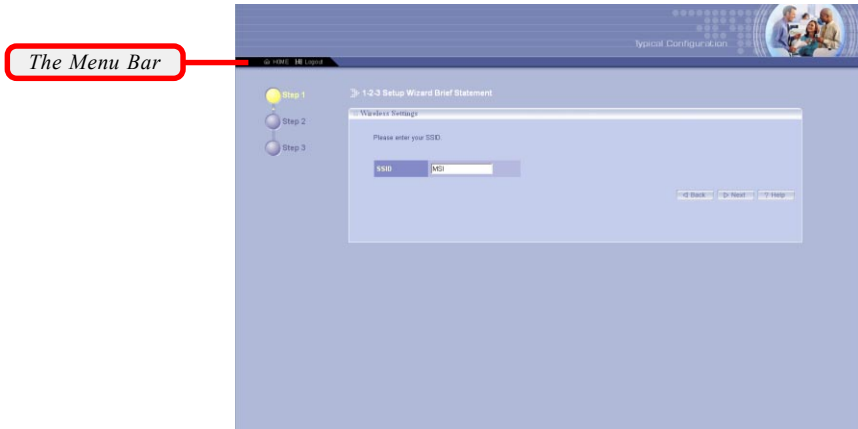
The Home window of the Configuration Utility will appear as below, which provides two options to select: **Typical Configuration** and **Customized Configuration**.



- **Typical Configuration** provides a step-by-step Setup Wizard to guide you through the basic settings of the gateway. Generally, after completing the three steps in this option, your Software AP can connect to the ISP and your client computer can access to the Internet without any problem.
- **Customized Configuration** allows you to customize the network settings of your Software AP for some specific purposes, such as changing password and other network settings.

### 5.3.1 Typical Configuration

In the Home window, click **Typical Configuration** and the Setup Wizard appears from *Step 1* to guide you through the configuration.



*Step 1. Setting the SSID*

#### The Menu Bar

During the Setup Wizard, whenever you click **HOME** in the menu bar will make you return to the Home window; click **Logout** to exit the Configuration Utility.



*The Menu Bar*

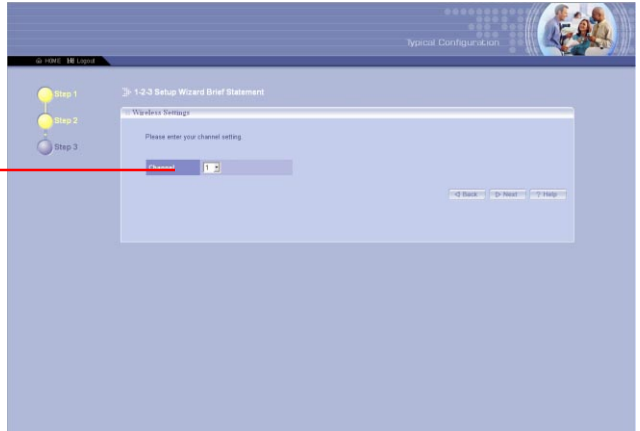
#### Step 1. Setting the SSID

SSID (Service Set Identifier) is the name designated for a specific wireless local area network (WLAN).

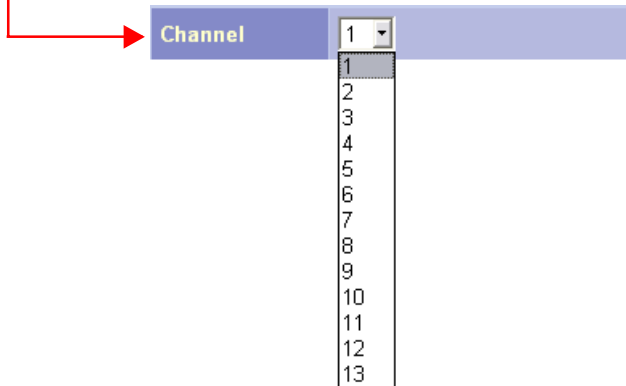
After entering your SSID, click **Next** to continue *step 2*.

### Step 2. Setting the Channel

Channel **1** is the default value. Please note that all devices on the network must share the same channel.

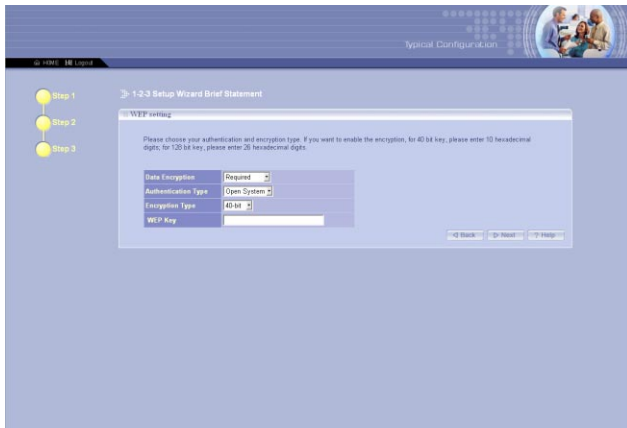


Step 2. Setting the Channel



Make your choice and click **Next** to continue *step 3*.

### Step 3. WEP Setting



*Step 3. Setting the WEP*

#### Data Encryption

If Data Encryption is set to **Required**, the following items must be answered. If it is set to **Not required**, you may skip *Step 3* and click **Next** to close the 1-2-3 Setup Wizard.

#### Authentication Type

- **Open System** : communicates the key across the network.
- **Shared Key** : devices must have identical WEP settings to communicate.

Select your authentication type and continue on to the next item.

#### Encryption Type

Select the level of encryption desired: **40-bit** or **128-bit**. If you want to enable the encryption, for 40-bit key, enter 10 hexadecimal digits; for 128-bit key, enter 26 hexadecimal digits.

#### WEP Key

Enter your 10- or 26-digit WEP Key.

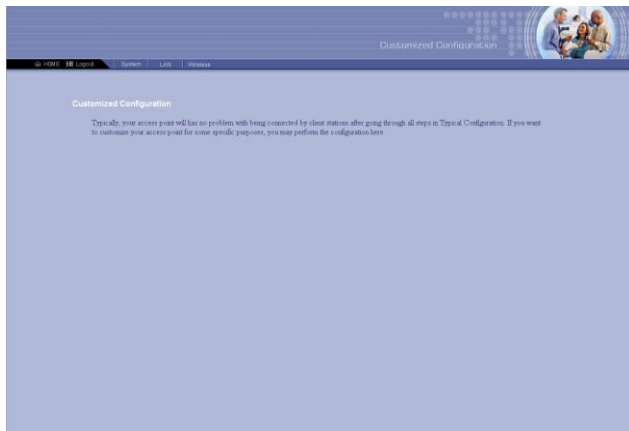
*Hexadecimal digits consist of the numbers 0-9 and the letters A-F.*

When completed, click **Next** to close the 1-2-3 Setup Wizard.

### 5.3.2 Customized Configuration

If you want to customize your Software AP for specific purposes, you may perform the configuration here.

In the Home window, click **Customized Configuration** and the main window appears as below.



*Main Window of Customized Configuration*

#### The Menu Bar

There is a menu bar in the top of the Customized Configuration window containing two options to exit the configuration window (**HOME** and **Logout**, as described in page 34), and three additional options for advanced configuration: **System**, **LAN**, and **Wireless**. The three options allow you to configure the respective network settings and view the system status.



*The Menu Bar*



## System

This window includes all the basic configuration tools such as options to set up password, re-load the factory default settings, and view system status.

*Tip: Once you have changed the settings in each option, click **Apply** to save the settings, or **Cancel** to abandon. Clicking **Help** can bring up the help window.*

### Password Setting

This option allows you to use other personal password to replace the default password (**admin**). First, enter the old password, and then enter the new password twice to confirm the password changed. Then, click **Apply** to save the settings.

### Factory Default

You may re-load the factory settings of your Software AP.

### System Status

This option contains detail information of your Software AP, including general information and respective network settings.

## LAN

LAN is short for *Local Area Network*. This is considered your internal network. In the LAN Setting window, you can configure the IP setting.

### IP Setting

The default setting of the IP address is obtained from your DHCP server. If there is no DHCP server in your network, uncheck the **Enable DHCP client** option and set up the IP address for your Software AP.

- **DHCP Client** : When set to **Enable**, your Software AP can obtain an IP address automatically from the DHCP server. Please note that once you enable DHCP Client, you might not be able to configure your Software AP in the browser unless you know what IP address your Software AP is assigned.

- **IP Address** : The IP address of the LAN interface.

- **Subnet Mask** : The subnet mask of the LAN interface.
- **Default Gateway** : The IP address of the router/gateway in your network.

## **Wireless**

In this window, you can configure all wireless related settings for your Software AP.

### **SSID & Channel**

This option is used to set the SSID (Network Name) and channel for your Software AP. If you have changed the SSID or Channel settings, click **Apply** to save the settings.

### **Radio Setting**

This option allows you to configure the operation parameters of the Software AP's radio settings\*.

### **Encryption**

This option allows you to configure the setting of data encryption. The WEP key must be set before the data encryption is enforced.

### **Associated Client List**

This option is to display information of stations that are currently associating to your Software AP.

### **Association Control**

This option allows you to control which PC can connect to the wireless LAN. If you enabled this feature, only PCs with MAC address located in Association Control List can connect to the wireless LAN.

*\* These settings are for advanced users or MIS staff only. If you do not know how to set these parameters, you are recommended to use the default value.*

# Appendix

## - Networking Basics

This Appendix describes how to prepare for connection to network and some basic outline of networking basics, including sharing files, printing from a computer on the network, or accessing the Internet on multiple computers with one connection.

### >>> A.1 Checking the Network Elements

The following elements are required for all computers if you want to connect to a network:

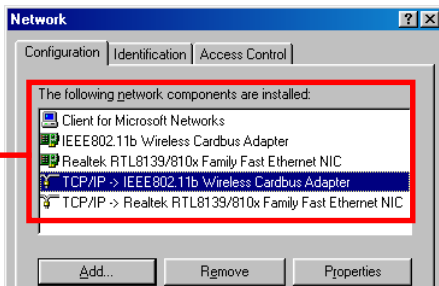
- **Client for Microsoft Network**
- **TCP/IP**
- **File and printer sharing for Microsoft Networks**

To check the required elements are installed in the system, you can:

#### 🔍 Under Windows 98SE/ME

1. Click **Start** and choose **Settings**; then, click **Control Panel** to open the **Control Panel** window.
2. Double-click the **Network** icon.
3. The **Network** window appears to show the current network settings of the system.

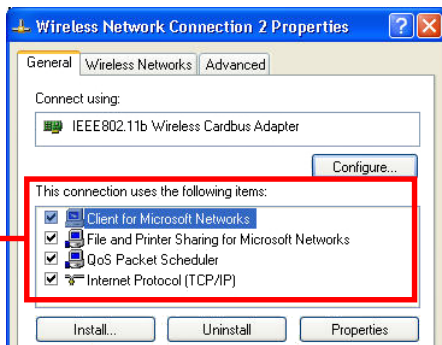
*Check the required elements from this field.*



**Under Windows 2000/XP**

1. Click **Start** and choose **Control Panel** to open the **Control Panel** window.
2. Double-click the **Network Connection** icon to open the **Network Connection** window.
3. Right-click the **Wireless Network Connection** icon and click **Properties** from the shortcut menu.
4. The **Wireless Network Connection Properties** window appears to show the current network settings of the system.

*Check the required elements from this field.*



## >>> A.2 Computer Identification

Please verify that each computer has a unique name and common workgroup name, if you had previously given your Windows 98SE/ME/2000/XP computers names.

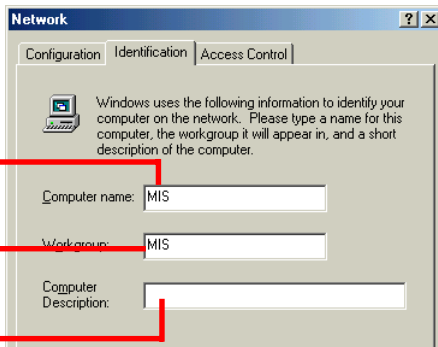
### 🔍 Under Windows 98SE/ME

1. Open the **Network** window as described in previous section, and choose **Identification** tab.
2. Type a name for the computer In the **Computer name** box. This will be the name of this computer used by other computers on your network to communicate with. Please **NOTE** that each computer's name must be unique on a particular network to avoid confusion.
3. Type the workgroup name that the computer will belong to in the **Workgroup** box. All the computers on your network should have an identical Workgroup name.
4. The **Computer Description** box is optional. You may enter a description that helps to identify this computer on your network. Then, click **OK**.
5. Repeat the procedure above for each computer on your network to ensure that they all have unique Computer Name and identical Workgroup.

*Enter a name for your computer (less than 15 characters without space).*

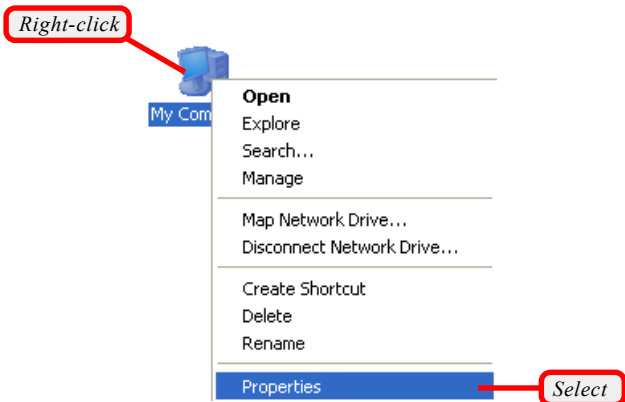
*Your computer will belong to this workgroup.*

*Enter some information for reference.*

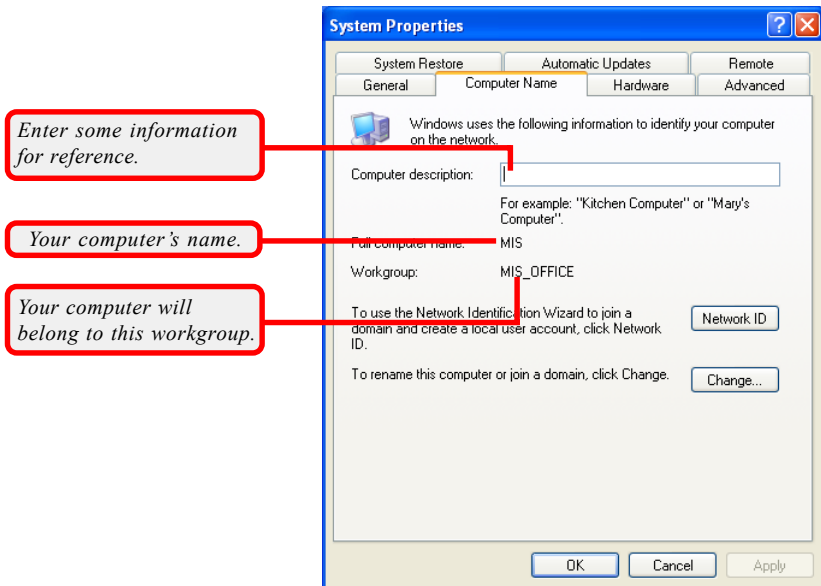


**Under Windows 2000/XP**

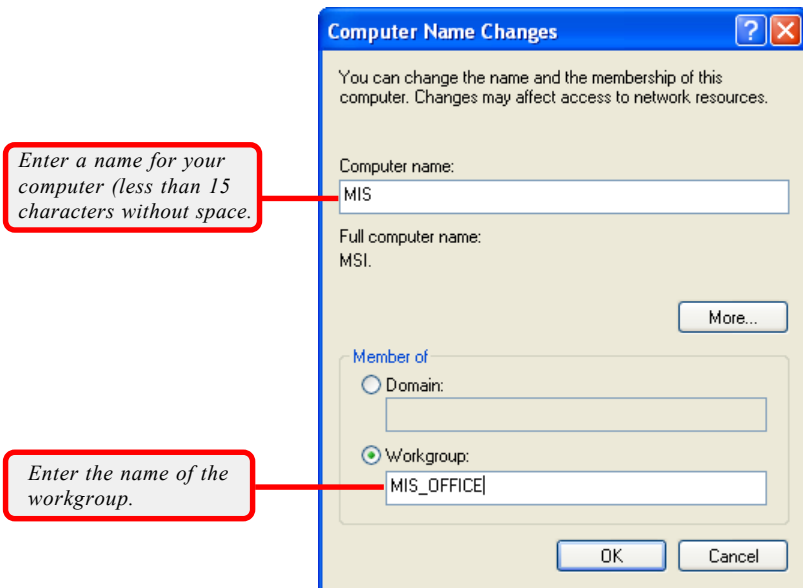
1. Right-click **My Computer** icon on your Windows desktop, and click **Properties** from the shortcut menu.



2. The **System Properties** window appears; choose **Computer Name** tab.



3. To rename the computer and join a workgroup/ domain, click **Change**.
4. The **Computer Name Changes** window appears as below. Enter a **Computer Name**, select Workgroup and enter the name of your workgroup. Please **NOTE** that each computer's name must be unique on a particular network to avoid confusion.



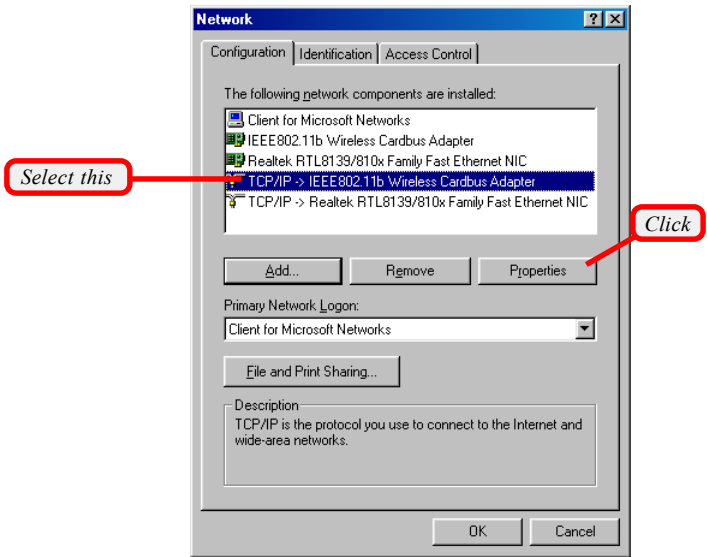
5. Click **OK** to save changes.

## >>> A.3 Configuring a Dynamic/Fixed IP Address

When the drivers are installed, the default setting here is set to obtain IP dynamically through a DHCP server. If you want to change the settings, please follow the steps below:

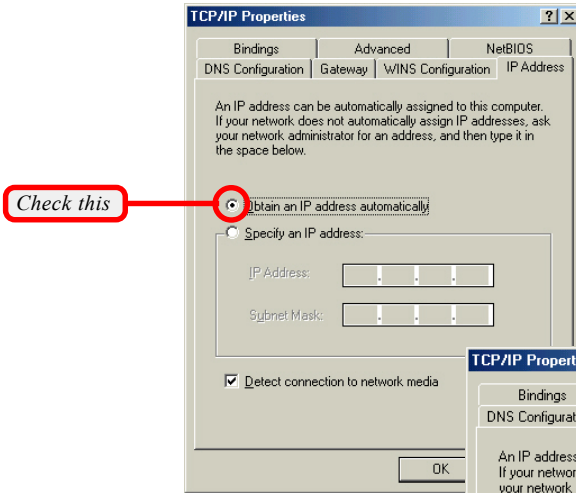
### Under Windows 98SE/ME

- 1. Go to **Start -> Settings -> Control Panel**.
- 2. Double-click the **Network** icon.
- 3. The Network window appears as below. Select **TCP/IP -> IEEE802.11b Wireless CardBus Adapter**, and click **Properties** to bring up the **TCP/IP Properties** window.

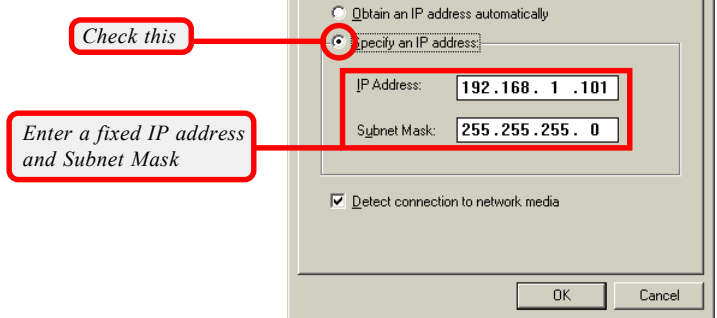


- 4.a To configure a dynamic IP address, choose **IP Address** tab and check **Obtain an IP Address Automatically**.
- 4.b To configure a fixed IP address, choose **IP Address** tab and check **Specify an IP Address**. Then, enter an IP address into the empty field. Suggested IP Address Range is **192.168.1.1** to **192.168.1.253**, and suggested Subnet Mask is **255.255.255.0**.





#### 4.a Configuring a dynamic IP address

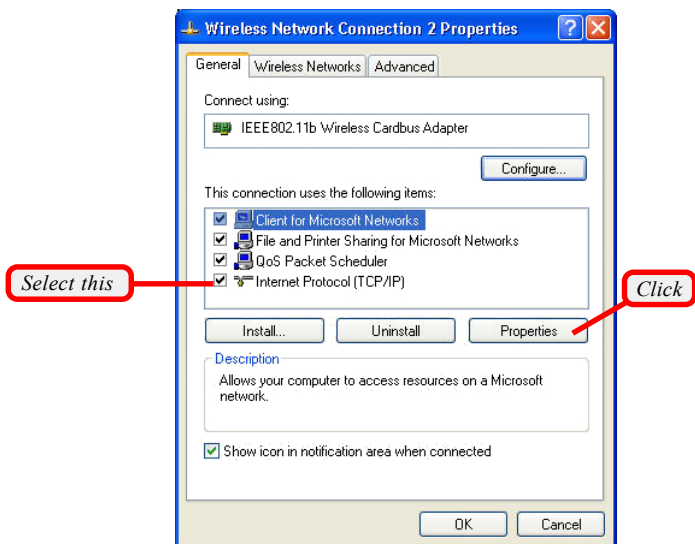


#### 4.b Configuring a fixed IP address

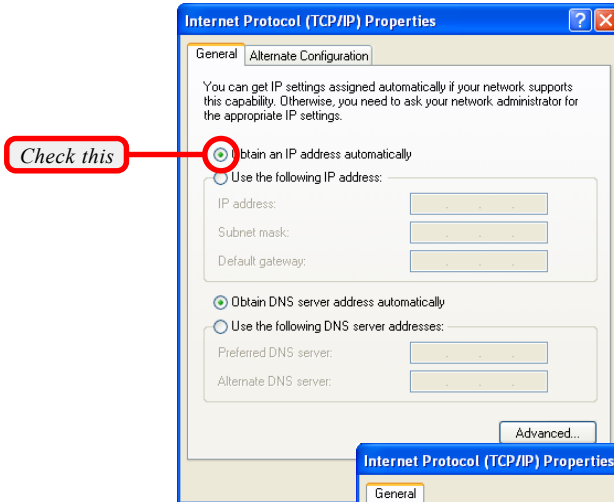
5. Click **OK**. Then, click **Yes** when prompted to reboot the computer.

**Q Under Windows 2000/XP**

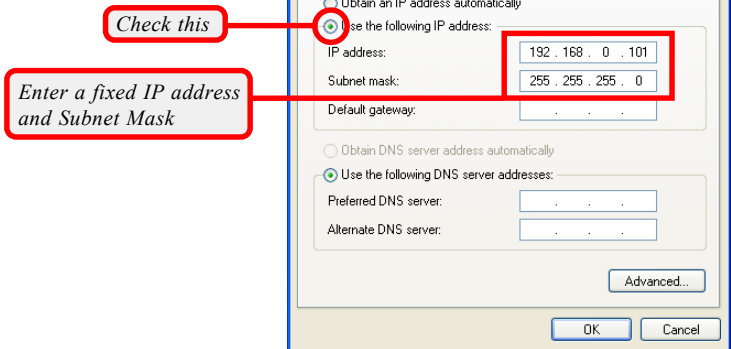
1. Click **Start** and choose **Control Panel** to open the **Control Panel** window.
2. Double-click the **Network Connection** icon to open the **Network Connection** window.
3. Right-click the **CardBus Wireless Network Adapter** icon and click **Properties** from the shortcut menu.
4. When the **Wireless Network Connection Properties** window appears, choose **General** tab and select **Internet Protocol [TCP/IP]**, and click **Properties** to bring up the **Internet Protocol [TCP/IP] Properties** window.



- 5.a To configure a dynamic IP address, check **Obtain an IP Address Automatically**.
- 5.b To configure a fixed IP address, check **Use the following IP address**. Then, enter an IP address into the empty field. Suggested IP Address Range is **192.168.1.1** to **192.168.1.253**, and suggested Subnet Mask is **255.255.255.0**.



### 5.a Configuring a dynamic IP address



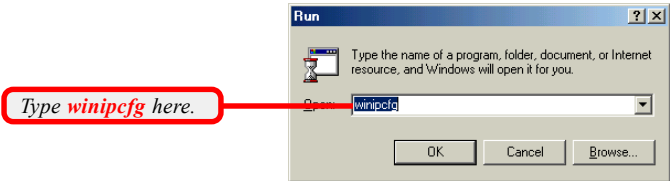
### 5.b Configuring a fixed IP address

6. Click **OK** to complete the configuration.

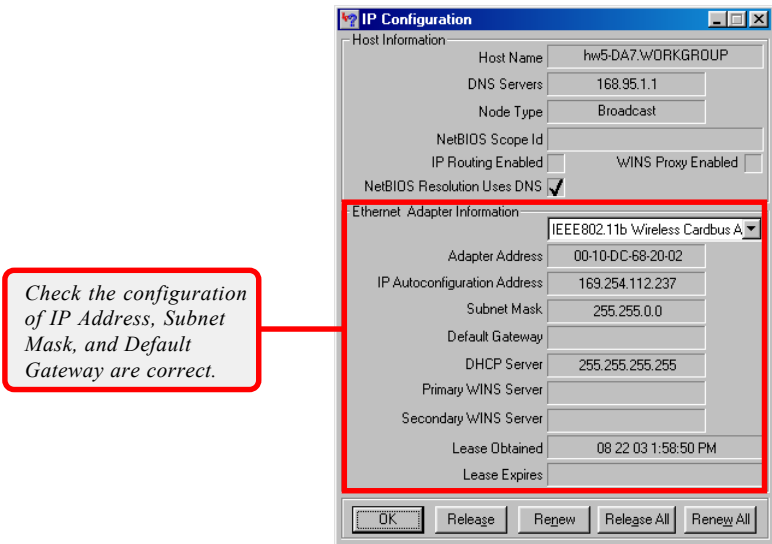
## >>> A.4 Checking TCP/IP Address

### Under Windows 98SE/ME

1. Go to **Start -> Run...**
2. Type **winipcfg** in the Open box and click **OK**.

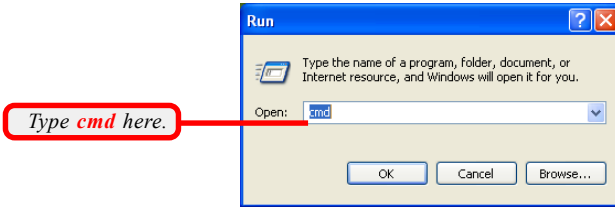


3. The **IP Configuration** screen will appear, click **More Info** to bring up a screen containing detail information of your wireless network adapter.



## Q Under Windows 2000/XP

1. Go to **Start -> Run....**
2. Type **cmd** in the Open box and click **OK**.



3. A DOS prompt window appears. Type **ipconfig/ all** and press **[Enter]** to display IP information.

```

C:\WINDOWS\System32\cmd.exe
Windows IP Configuration

Host Name . . . . . : MIS
Primary Dns Suffix . . . . . :
Node Type . . . . . : Hybrid
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No

Ethernet adapter Wireless Network Connection:

    Connection-specific DNS Suffix  . :
    Description . . . . . : IEEE802.11b Wireless Cardbus Adapter
    Physical Address. . . . . : 88-10-DC-68-19-10
    Dhcp Enabled. . . . . : Yes
    Autoconfiguration Enabled . . . . : Yes
    IP Address. . . . . : 192.168.0.101
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.0.1
    DHCP Server . . . . . : 192.168.0.1
    DNS Servers . . . . . : 192.168.0.1
    Lease Obtained. . . . . : Saturday, April 19, 2003 4:22:53 PM
    Lease Expires . . . . . : Saturday, April 26, 2003 4:22:53 PM

C:\Documents and Settings\Steven>

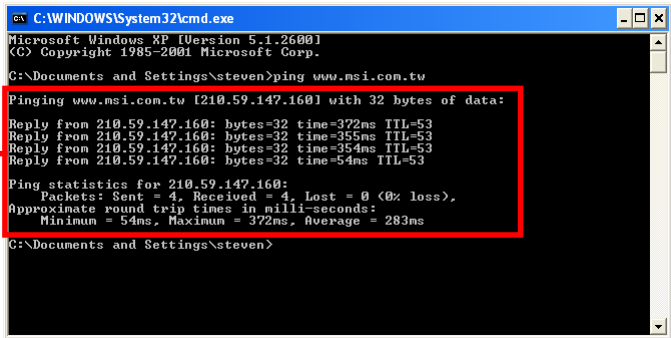
```

Check the configuration of IP Address, Subnet Mask, and Default Gateway are correct.

## >>> A.5 Checking Connection by Pinging

1. Go to **Start -> Run....**
2. Type **command** (Windows 98SE/ME) or **cmd** (Windows 2000/XP) in the Open box and click **OK**.
3. A DOS prompt window appears. Type **ping 210.59.147.160** (or any URL address), which is the IP address of the Gateway in this case, and press **[Enter]**.

*You will get reply if the pinging is successful.*



```
C:\WINDOWS\System32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\Steven>ping www.msi.com.tw

Pinging www.msi.com.tw [210.59.147.160] with 32 bytes of data:

Reply from 210.59.147.160: bytes=32 time=372ms TTL=53
Reply from 210.59.147.160: bytes=32 time=355ms TTL=53
Reply from 210.59.147.160: bytes=32 time=354ms TTL=53
Reply from 210.59.147.160: bytes=32 time=54ms TTL=53

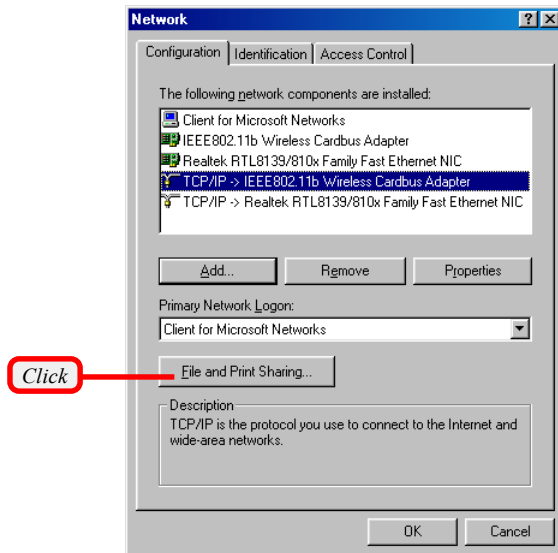
Ping statistics for 210.59.147.160:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 54ms, Maximum = 372ms, Average = 283ms

C:\Documents and Settings\Steven>
```

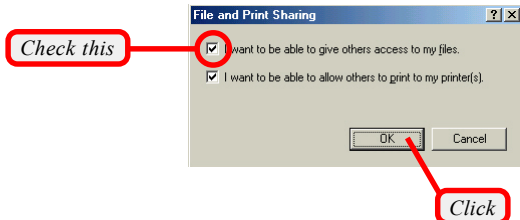
## >>> A.6 Sharing Files

You may now open and save files on other computers once your computers are connected together on a network. You will also be able to specify particular folders or disk drives to share and even password to protect them. Please verify that each computer has a unique name and common workgroup name, if you had previously given your Windows® 98SE/ME/2000/XP computers names. Follow the steps below to share specific files and folders with other computers on your network.

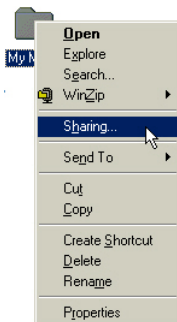
1. On your Windows desktop, right-click **My Network Place** icon and select Properties from the context menu.
2. You will configure your computers network settings in this dialog. It is also available through the **Network** icon in the **Control Panel**.
3. Click **File and Print Sharing**.



4. Select **I want to be able to give others access to my files** option, and click **OK**.

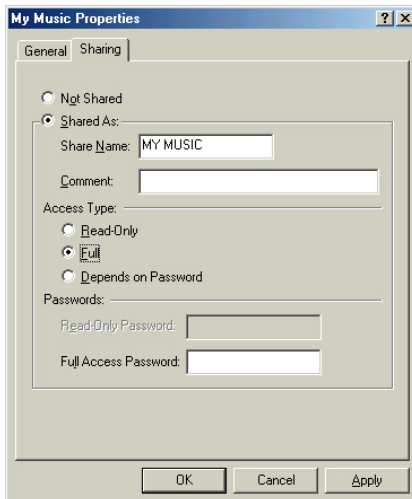


5. Click **OK** in the Network dialog box.
6. Provide the Windows Setup CD or direct the path to the proper location of the installation files if prompted. Then, reboot if prompted.
7. Now you can identify a particular folder or disk drive to share, which means you can share a folder that both you and your family member/colleague needs to access occasionally. You can also share your CD-ROM drive for others to use if your other computers do not have one. Both of these processes are the same. Only the disk drives and folders that you specifically identify as shared will be accessible to other computers on your network.
8. Locate the disk drive or folder you want to share in Windows Explore or My Computer icon on your desktop.
9. Right-click the disk drive or folder and select **Sharing**.





10. Select **Share As** to set the parameters for sharing this particular disk drive or folder.



### Share Name

This is used to identify the disk drive or folder you are sharing to other computers in the network, which can be helpful as more resources in your network for others.

### Comment

This field is optional, which can be used to further describe the disk drive or folder for others in the network.

### Access Type

This option allows you to designate how much someone else can do with this shared disk drive or folder. Setting options are: **Read-Only** - only allows others to look at or open the files in the disk drive or folder. **Full** - allows others to read, write, open, save, copy, move, and even delete files. **Depends on Password** - gives other computers access conditional on the password they provide.

### Password

This option allows you to apply a level of security to your shared disk drive and folder. Any other computer (user) will be asked to enter the password you set here before accessing the disk drive or folder. Two passwords are used to give two levels of security (or access) to others in the network using the **Depends on Password** setting. Leaving the Password boxes empty will give everyone in the network access to the disk drive or folder.

11. Click **OK** to continue. You will be prompted to type the password(s) you provided for verification. Type the password(s) just as you typed them again.
12. Now you may access this disk drive or folder from another computer in your network. You may do so by double-clicking the **My Network Place** icon on your Windows desktop or inside Windows Explorer.
13. Navigate to the computer with the shared disk drive or folder (recognized by the Computer Name you provided), and double-click it. If you specified a password when sharing this disk drive or folder, you will be asked for the password.
14. You can access a disk drive or folder shared over the network from most Windows 98SE/ME/2000/XP applications. You can map these disk drives and folders to a drive letter on another computer to make this process easier. For example, on a computer where you are accessing a shared folder from another computer, inside Windows Explorer right-click and select **Map Network Drive**. Now you are able to assign an available drive letter. Checking **Reconnect at logon** allows Windows to map this network drive each time when you start your computer.