Wireless LAN Device Series

WLAN USB Pen-Type Adapter

ZPlus-B290 User's Manual

Version. 1.02 (10.07.2003)

Notice

" 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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the 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, and (2) this device must accept any interference received, including interference that may cause undesired operation. The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: 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 or more 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 needed.

 □ Consult the dealer or an experienced radio/TV technician for help.

The Product name has been tested to the FCC exposure requirements (Specific Absorption Rate).

CAUTION:

1. The equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment, under 47 CFR 2.1093 paragraph (d)(2).

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

Contents

1   Introduction

This USB device is a Wireless LAN Adapter with a rate of 1, 2, 5.5, and 11 Mbps operating in the ISM band using Direct Sequence Spread Spectrum (DSSS) transmission, conforming the IEEE 802.11b standard. For these card currently provides Device Drivers for Microsoft Windows® 98SE/Me/2000/XP.

1.1 Package Contents

Before you do anything, open your package and verify it includes:
- ZPlus-B290 Adapter
- USB Cable
- Setup Utility CD containing User's Manual
- Quick Start Guide

1.2 System Requirements

- Operating System: MS Windows 98SE/Me/2000/XP.
- Desktop/notebook PC with CD-ROM drive and USB interface.

2 Quick Installation

This section provides a quick step by step guide on how to install your Wireless LAN USB Adapter. Please follow the steps described below and refer to the appropriate sections for further details:

- Power on the computer.
- Please make sure that **you don't insert your WLAN USB adapter yet.**
- Install the drivers and application:
    1. Insert the given Installation CD into your CD-ROM drive.
    2. Click "Install/Uninstall software" button to install.
    3. Follow the installation instructions from the InstallShield Wizard by pressing the "Next" button.
    4. Choose the appropriate of installation, according to your needs (Application, Drivers)
    5. If you want to set the path of your choice, select "Browse" and then "Next".
    6. Then setup wizard will help you finalize the rest steps.
    7. Push the "OK" button, and then reboot system.
    8. The installation will be completed after reboot.
- Insert your WLAN USB adapter.
- The "Add New Hardware Wizard" automatically loads the Drivers.
- Refer to sections 3 for more details on the installation and configuration under Windows 98SE/Me/2000/XP respectively. Section 4 gives detailed instructions on how to use the Configuration Utility.
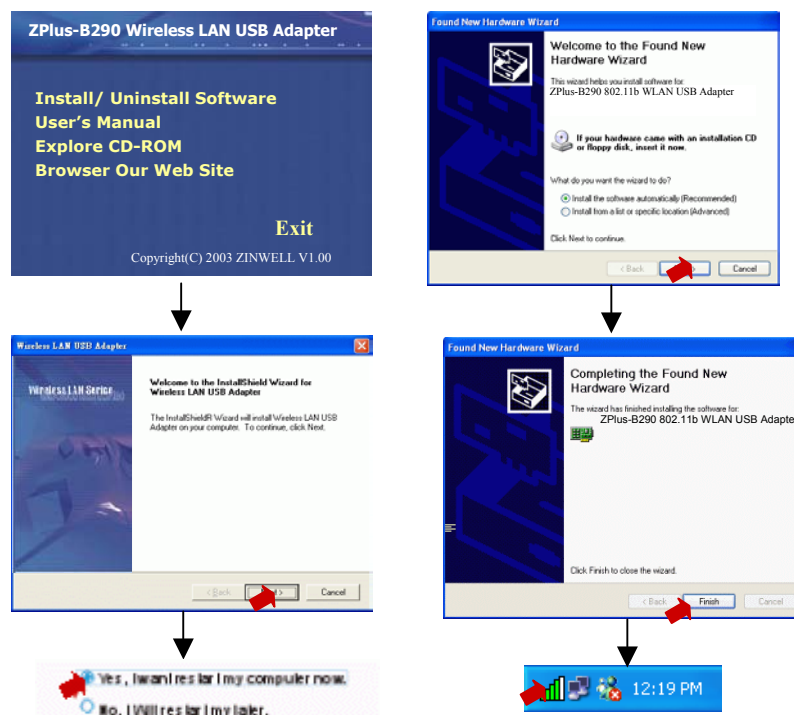
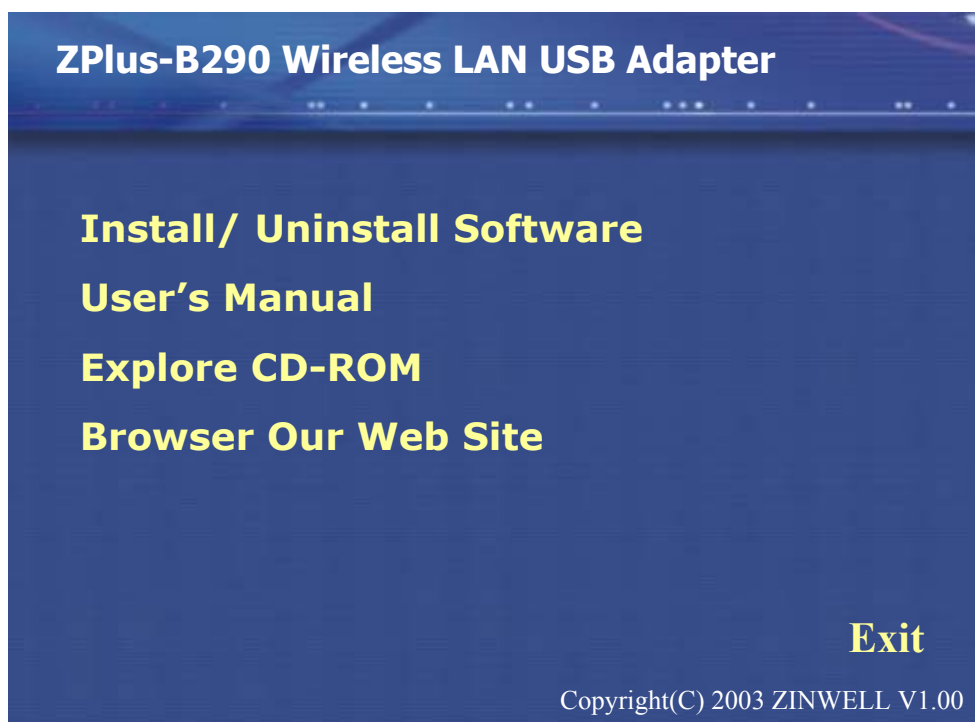# 3   Installation Procedures Under MS Windows

The procedures described in this section to install and configure the Wireless LAN USB Adapter under MS Windows 98SE/Me/2000/XP.

3.1 Installing the Application and Drivers under Windows 98SE/Me /2000/XP

Please do not plug your USB adapter until the Application setup has been completed. The setup procedure described below installs both the drivers and the Configuration & Monitor Utility.

1. Insert the Driver CD to your CD-ROM, the following window will pop up and Click "Install/Uninstall software" button to install. (If the following window doesn't pop up, click the **Start** button at the Taskbar and then select **Run**. Enter **E:\autorun.exe** if E is your CD-drive.)

ZPlus-B290 Wireless LAN USB Adapter

Install/ Uninstall Software

User's Manual

Explore CD-ROM

**Browser Our Web Site**

Exit

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2. Follow the installation instructions from the InstallShield Wizard by pressing the "Next" button.
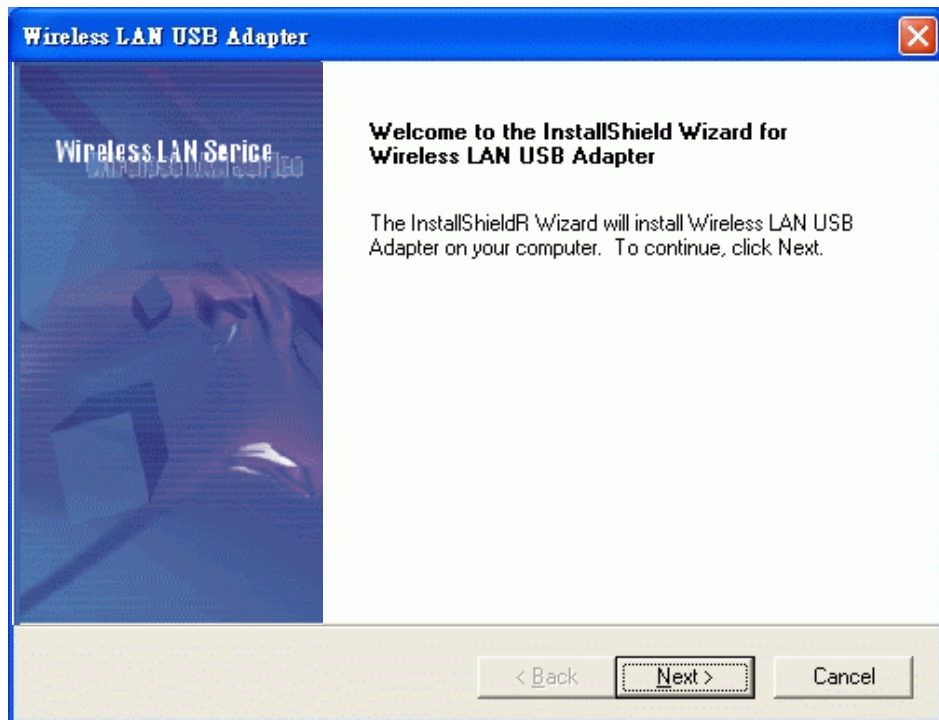
3. The installer will install the needed files to a folder named "C:\Program Files\Wireless LAN Series\ZPlus-B290". If you want to change this, Click"Browse" and select a folder. Click "Next" to continue.
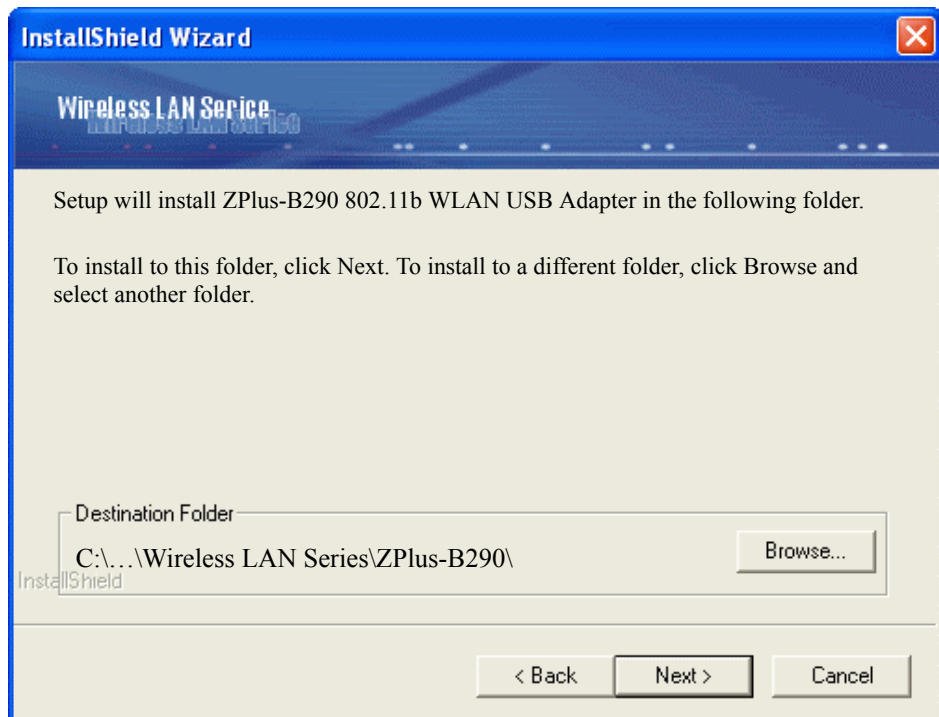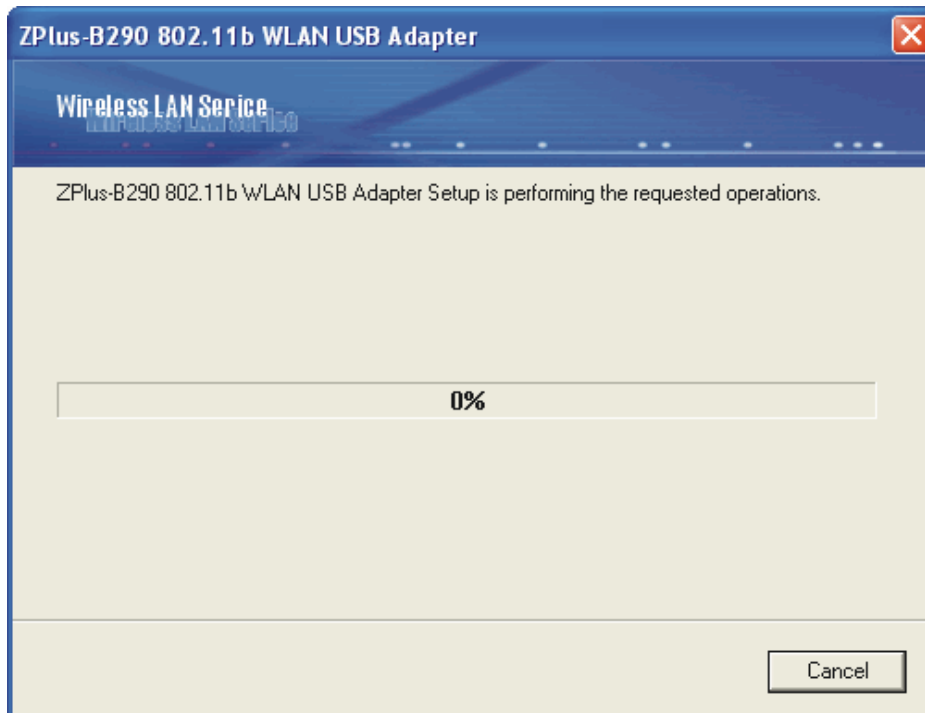
4. Choose all program features will be installed. If you want to change this, Click "Custom", Choose which program features you want installed. Click **"Next"** to continue.
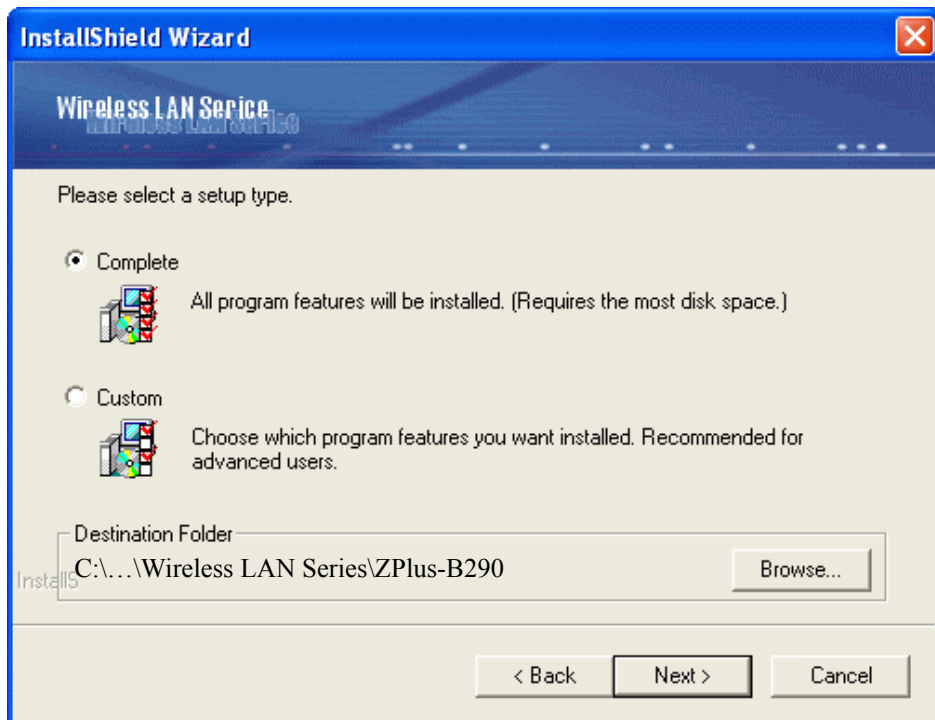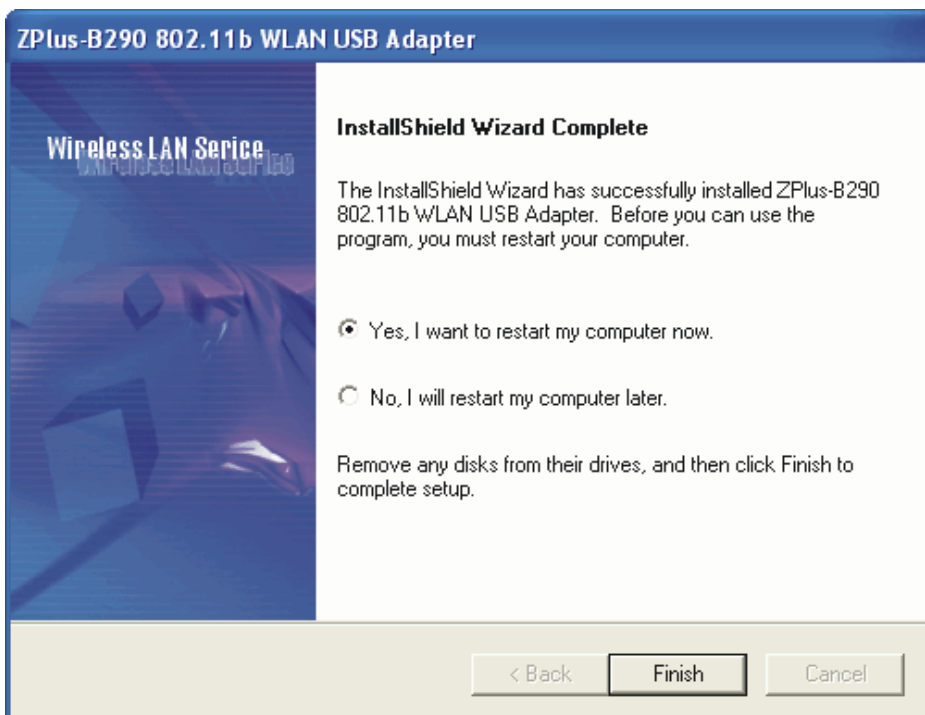

5. The installer will create a program folder called **ZPlus-B290 802.11b WLAN USB Adapter**. If you want to change this, enter a name or select from the list below. Click **"Next"** to continue.

6. Start Setup.

7. Click **"OK"** to complete the installation and restart the computer.

8. After the computer restarts, plug WLAN USB Adapter connector into USB port on computer.

Under MS XP-

9. After the computer restarts, plug WLAN USB Adapter connector into USB port on computer then **Windows XP** detects the device automatically, briefly showing a message "**Found New Hardware**" and starts collecting information for a device information database.

10. When **Windows XP** is ready to configure the new hardware, it opens the **Found New Hardware Wizard** dialog box as shown; a dialog box appears asking what you want the wizard to do. Select **"Install the software automatically (Recommended)"** and Click **"Next"**.

11. Starting search the driver automatically.
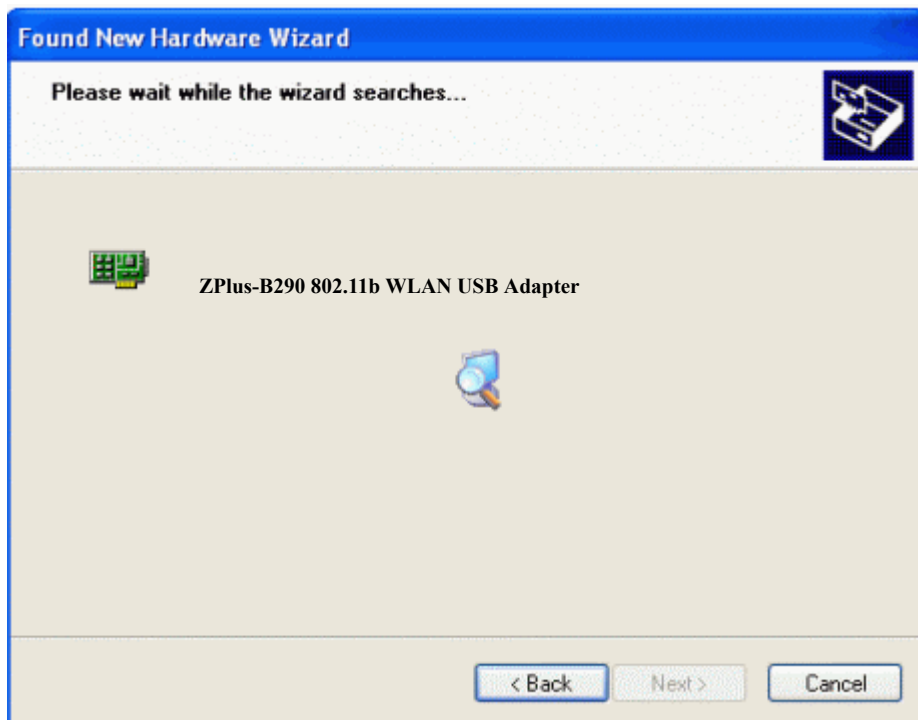
12. Starting install driver automatically, Click **"Continue Anyway"**

13. Hardware installation finished, Click "*Finish*".
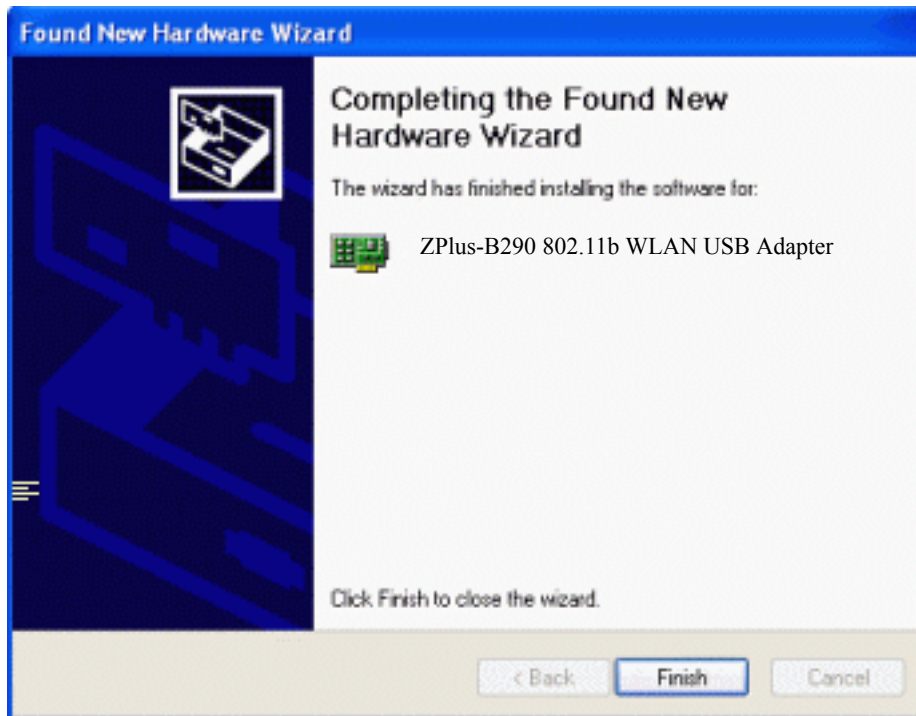
14. You will find an icon in indicated "Wireless LAN USB Adapter" on your system tray.
You can double-click on it to configuration.

3.2 Uninstall the Driver/Application

There are three way to uninstall the driver/application.
1. Uninstall from windows **"Control Panel"**
2. Uninstall from **"Installation CD"**
3. Uninstall from windows **"Start Menu"**

> **Note:** It is recommended to **"Exit"** the **"Configuration & Monitor Utility"**, when you uninstall. No matter what way you choose to uninstall.
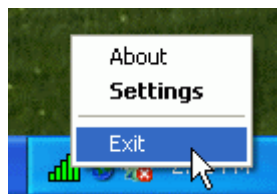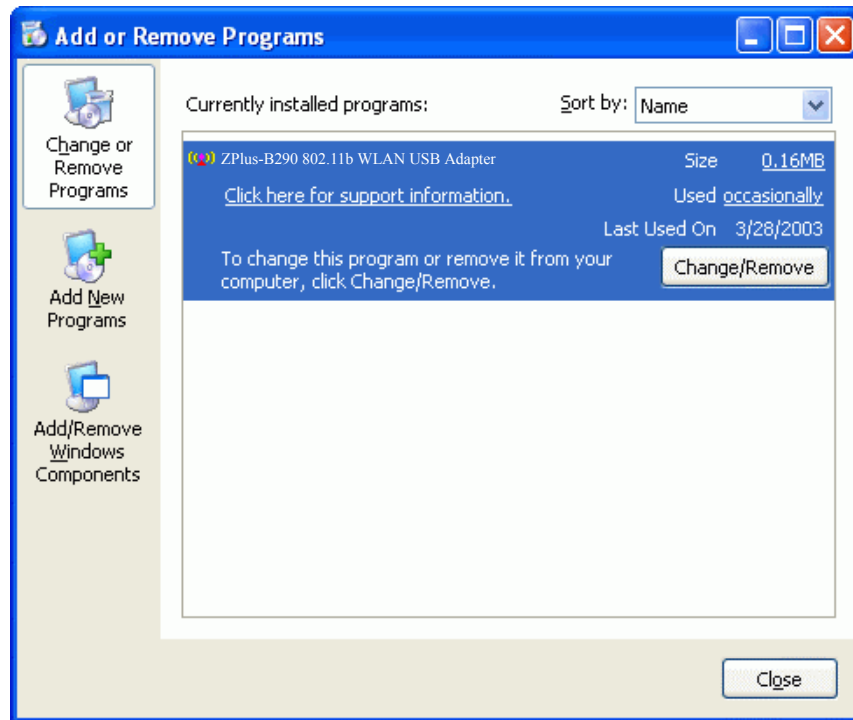

Uninstall form windows "Control Panel"
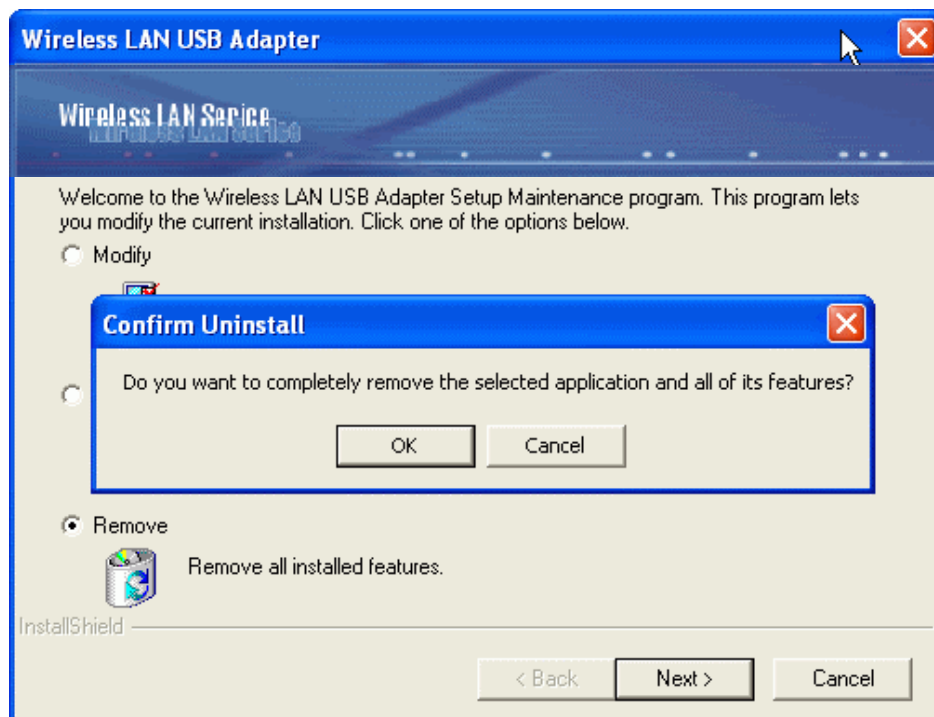
Under MS Windows 2000/XP
1. Open **"Control Panel"**.
2. Double click **"Add or Remove Programs"**.
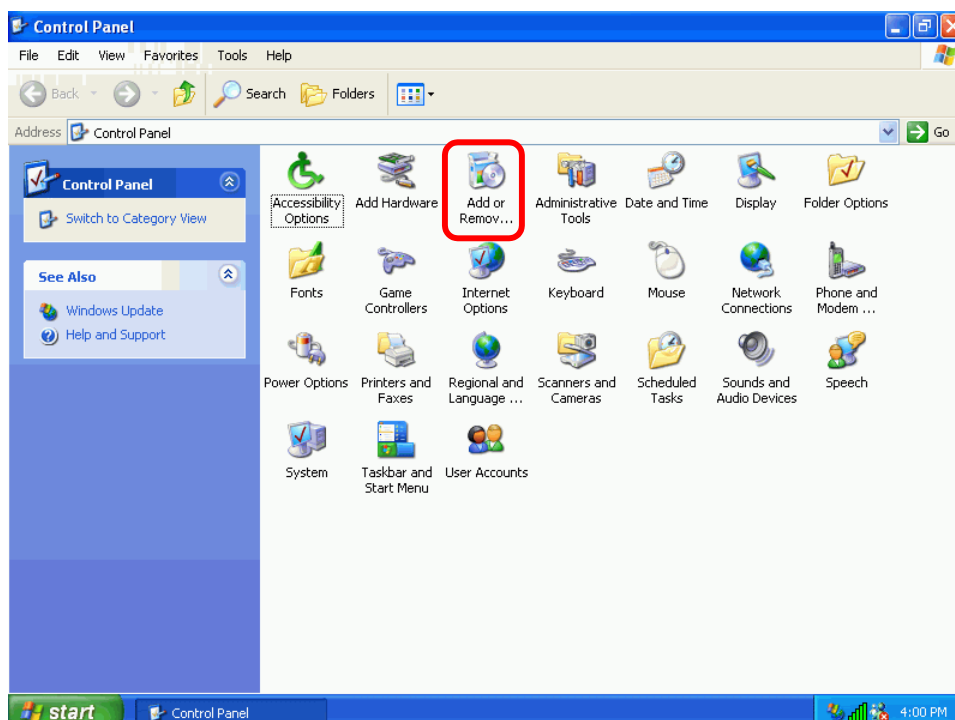
3. Choice the **"Change or Remove Programs"**.
4. Select the **"ZPlus-B290 802.11b WLAN USB Adapter"** from the list.
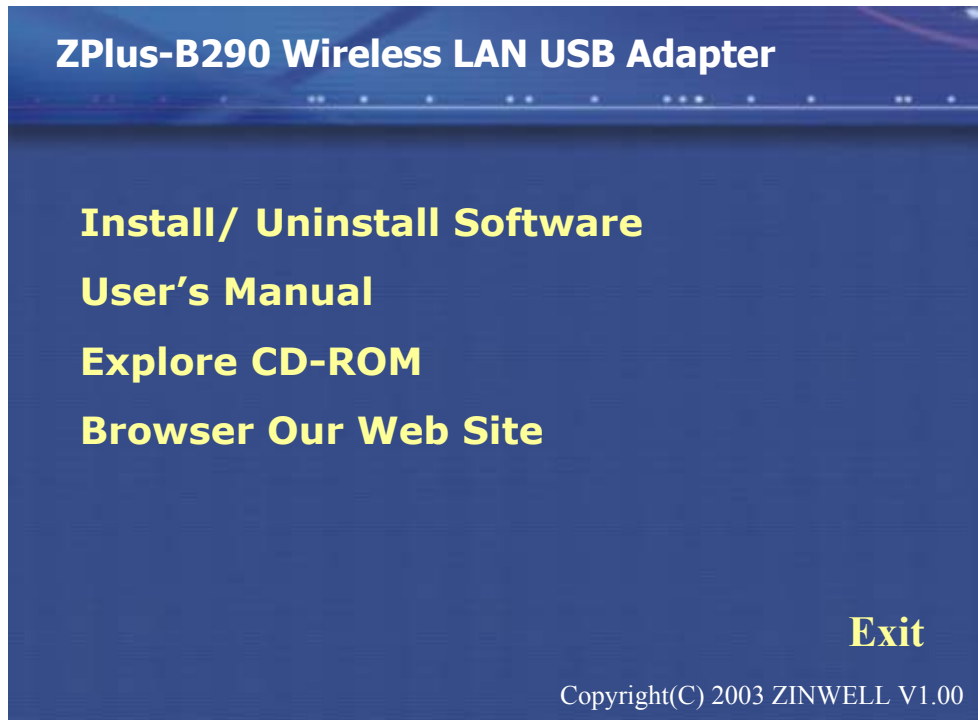5. Click the **"Change/Remove"** button.

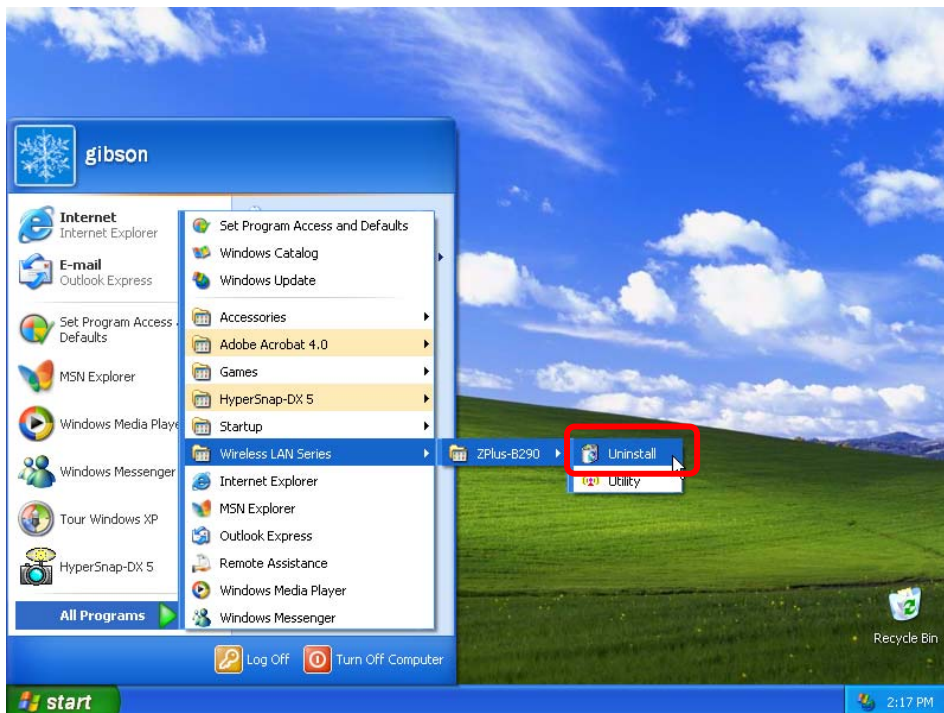6. Click the **"Next"** button, and then click **"OK"**.

Uninstall from Installation CD

Insert the Installation CD to your CD-ROM, the following window will pop up and Click *"Install/Uninstall software"* button to uninstall.

Uninstall from Windows Start Menu

Select **"Start->All Program->Wireless LAN Series->ZPlus-B290",** Choose **"**Uninstall".

4 Configuration & Monitor Utility

The **"Configuration & Monitor Utility"** is a powerful application that helps you to configure the Wireless LAN Adapter and monitor the statistics of the communication. Unlike the standard method of configuring the card via the operating system utilities (e.g. Control Panel), this application permits the dynamic modification of the configuration parameters while the adapter is operating. It also offers some more configuration options. Offers the **"Configuration & Monitor Utility"** for Windows 98/Me/2000/XP.

> *Note*：*Please keep in mind that the Configuration & Monitor Utility can be used to change the above configuration parameters when the cards are active. When the cards are not in use, please use the Control Panel method.*

4.1 Quick step-by-step start to connect site

● Double-click the icon on the system tray to open **"Configuration & Monitor utility"**.

● Click *"Refresh"* button to scan nearby available network.
● Select one of available network and click *"Connect this site"* button to connect site.
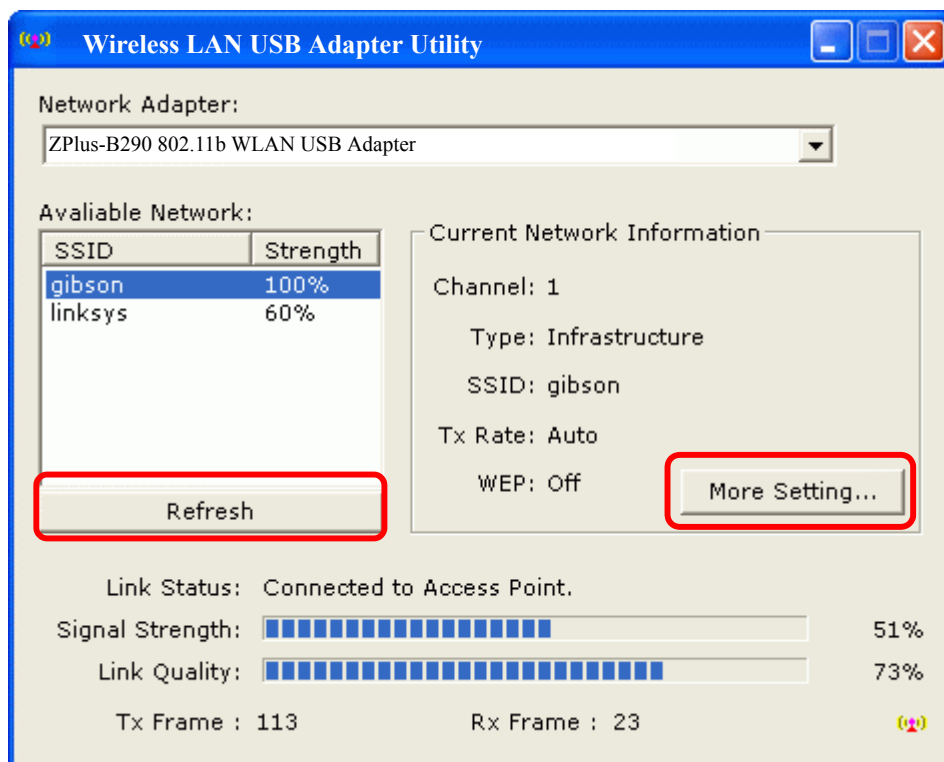
- If adapter connect successfully, you can get the information about *link status*, *signal strength* and *link quality*.
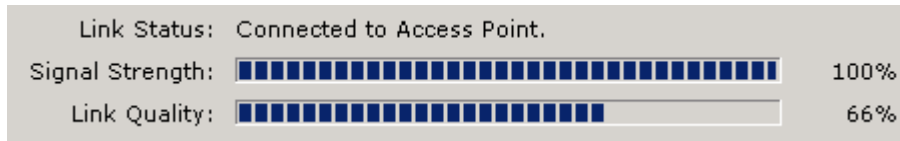

Note：*Under **Windows XP**, Operating system will use "**Windows Zero Configuration**" to set your adapter. If you want to use our **"Configuration & Monitor utility"**, you need to **disable** "Windows Zero Configuration", first. (See next section: How to disable "Windows Zero Configuration".) Or when you open "Configuration & Monitor utility" by double-clicking on icon of system tray, it will pop up the error message**" Wireless LAN is controlled by Windows Zero Configuration!!! "**.*
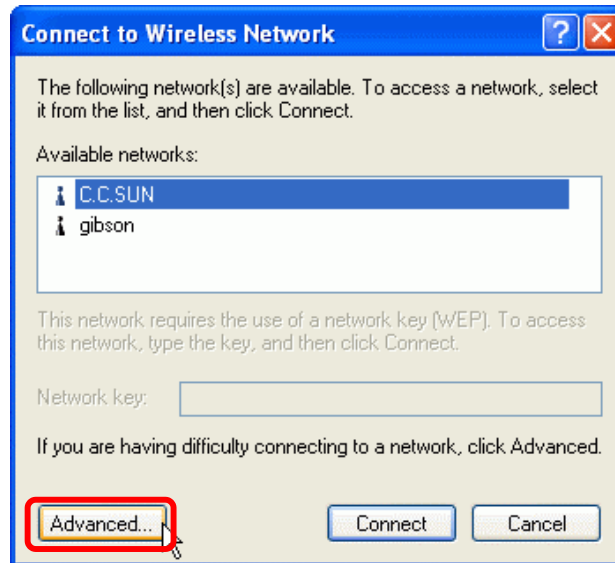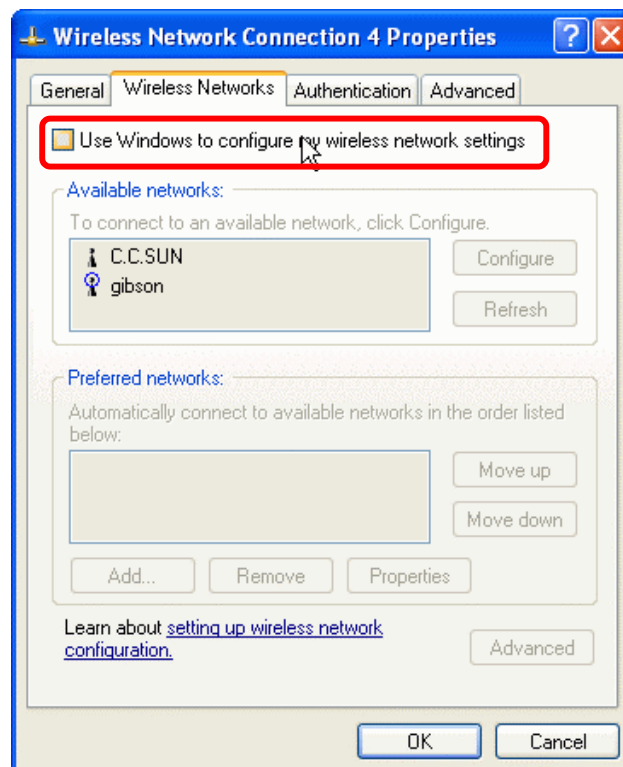
- *How to Disable "Windows Zero Configuration"*.

Step 1. Right click the **Wireless Network Connection icon** in notification area and
select **"View Available Wireless Network"**.
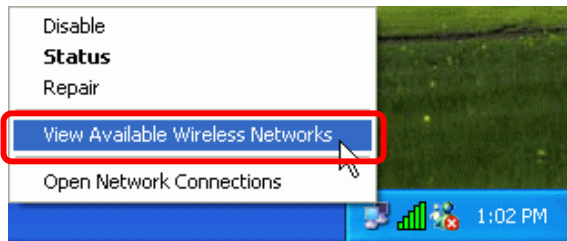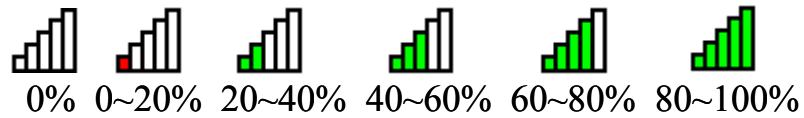

Step 2. Click *"Advanced..."* button.

Step 3. Disable "**Use Windows to configure my wireless network settings**" and
click *"OK"*.

4.2 System tray

The **"Configuration & Monitor Utility"** appears as an icon on the system tray of Windows, when the adapter is running. And it will change image with signal strength. You can open utility by double-clicking on this icon.

0%   0~20% 20~40% 40~60% 60~80% 80~100%

## 4.3 Main dialog box of Utility

You can survey the reachable assess points and the wireless LAN adapter. And get the information about the status of the communication (the SSID of the access point to which the adapter is associated, signal strength, and link quality).
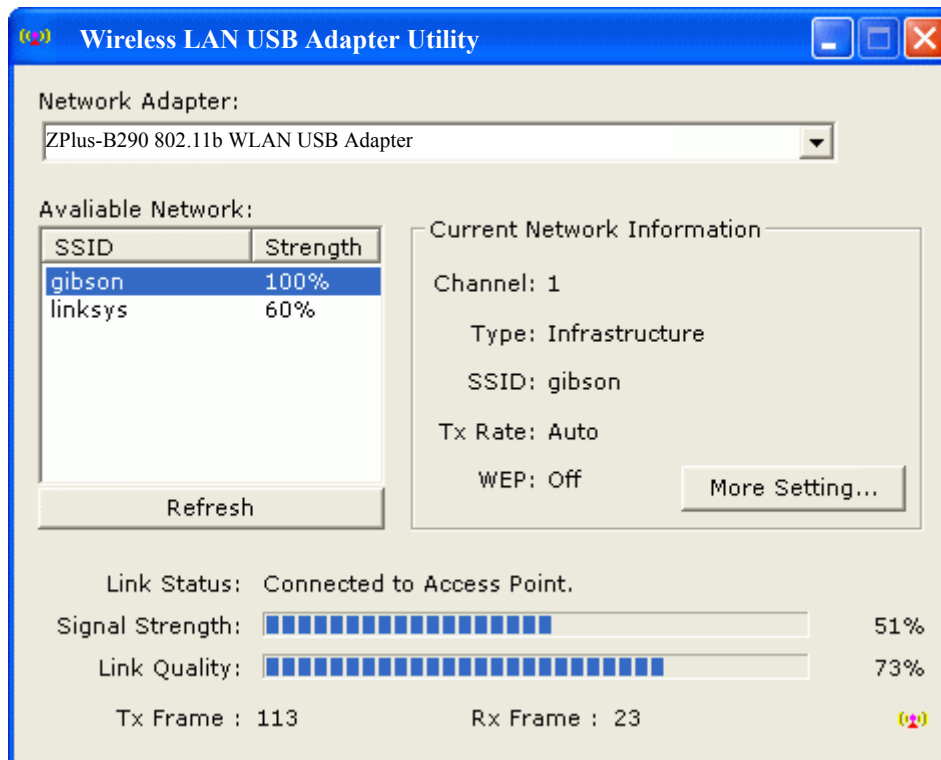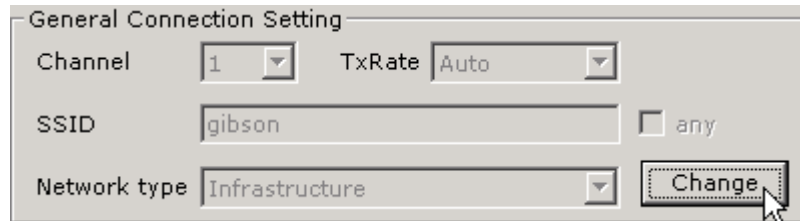
4.4 More Setting…

Click *"More Setting…"* button, this dialog box consists four items can help you to monitor and configure the Wireless LAN Adapter, the five items are **"General connection setting"**, **"Encryption"**, **"Language"**, **"Profile"** and **"Other"**.

- **General connection setting** – About channel, TxRate, Network type and SSID.
- **Encryption** – About Authentication mode and WEP Key setting.
- **Language** – About language setting.
- **Profile** – About profile manage.
- **Other** – About Power saving mode, Fragmentation RTS/CTS Threshold and system information.
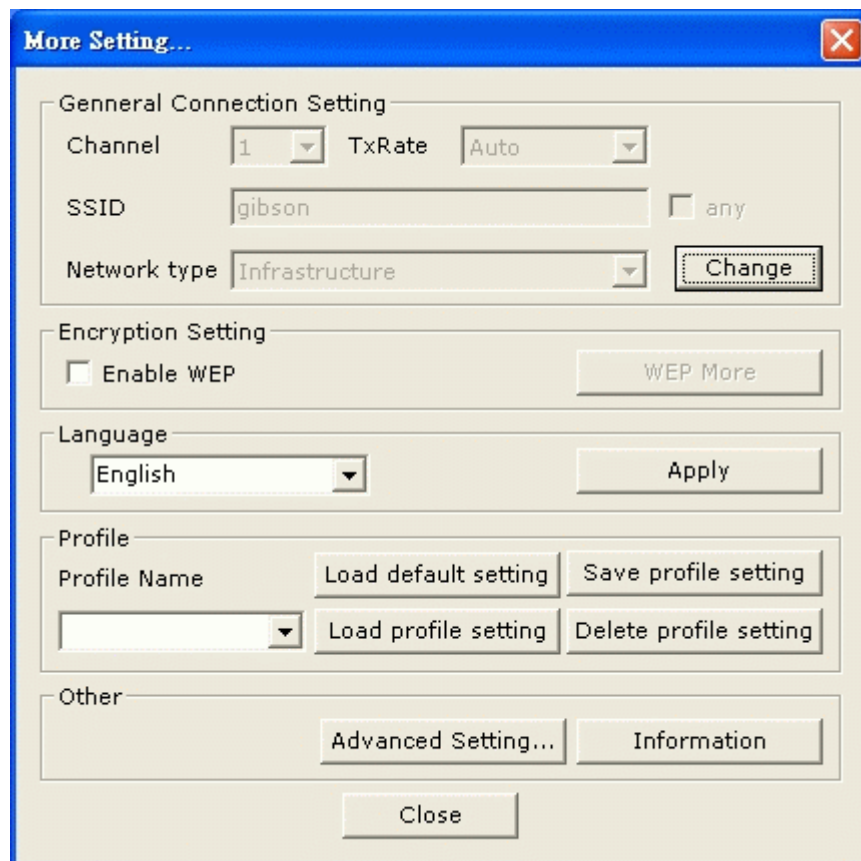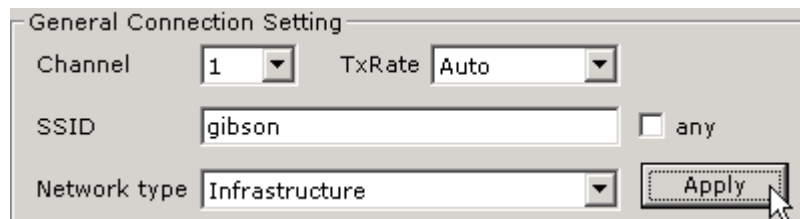
4.5 General connection setting

In order to change the configuration parameters click the *"Change"* button (*See Figure 4.5.1*), make your changes and then click *"Apply"* to save the changes (*See Figure 4.5.2*).

Figure 4.5.1

Figure 4.5.2

Network Type: The 802.11 standard supports two network topologies: Ad Hoc and Infrastructure mode.

- **Infrastructure –** This mode of operation requires the presence of an 802.11b Access Point. All communication is done via the Access Point, which relays packets to other wireless Clients in the BSS as well as to modes on a wired network such as Ethernet.
- **Ad Hoc –** This is the 802.11b peer-to-peer mode of operation. All communication is done from Client to Client without the use of an Access Point. 802.11 Ad Hoc networking uses the same SSID for establishing the wireless connection.

SSID: SSID is the group name that will be shared by every member of your wireless network. You will only be able to connect with an Access Point, which has the same SSID.

Channel: There are 14 channels available. The channels differ from country to country. Select the channel to be used.

TxRate: By default the unit adaptively selects the highest possible rate for transmission. Select the basic rates to be used among the following options 1, 2, 5.5, 11 (Mbps).

4.6 Encryption

You can set four different WEP keys and specify which one of them to use. First, either enable or disable encryption from the appropriate "Enable WEP" (*see Figure 4.6.1*). If you decide to use encryption, you can click **"WEP More..."** button to choose any of the available WEP keys (1 to 4). You also have the option to select the WEP Length. Please keep in mind that the WEP keys must be in HEX format. Finally, you have the option to select whether Open System, Shared Key, or Auto authentication will be used. In order to take effect the changes you wish to make, press the **"Change"** button at the bottom of the dialog box (*see Figure 4.6.2*).
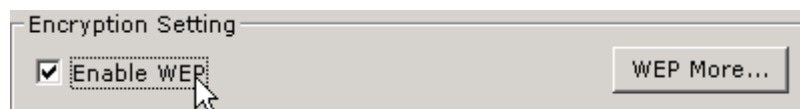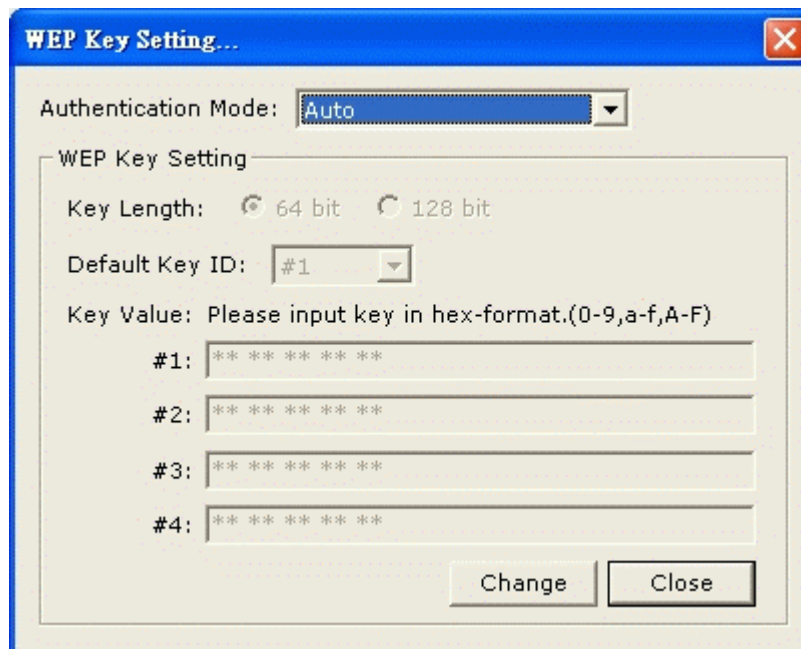

Figure 4.6.1

Figure 4.6.2

4.7 Language

You can choose one of the below language list, then click *"Apply"* button.

4.8 Profile

Profile is a named set of operating parameters for your Wireless LAN USB adapter. The *"Load Profiles setting"* let you set values for all parameters by selecting a previously defined profile. The Existing profiles display the available profiles for your USB Wireless LAN adapter. When you change the configuration parameters, press the *"Save profile setting"* button to save your changes. And you also can click **"Load default setting"** to load factory default value or click *"Delete profile setting"* button to delete settings (*See Figure 4.7.1*).

Figure 4.7.1

4.9 Other

Advanced

By Choosing the Advanced option, you can change advanced configuration settings, such as the Preamble Type, Fragmentation Threshold, and RTS/CTS Threshold. Figure 4.8.1 shows the default configuration for the advanced settings. Before selecting Short Preamble, make sure that the other stations and Access Points are also supporting this feature. When selecting "Auto" for the Preamble Type it automatically selects the Preamble Type depending on the Access Point Preamble Type.
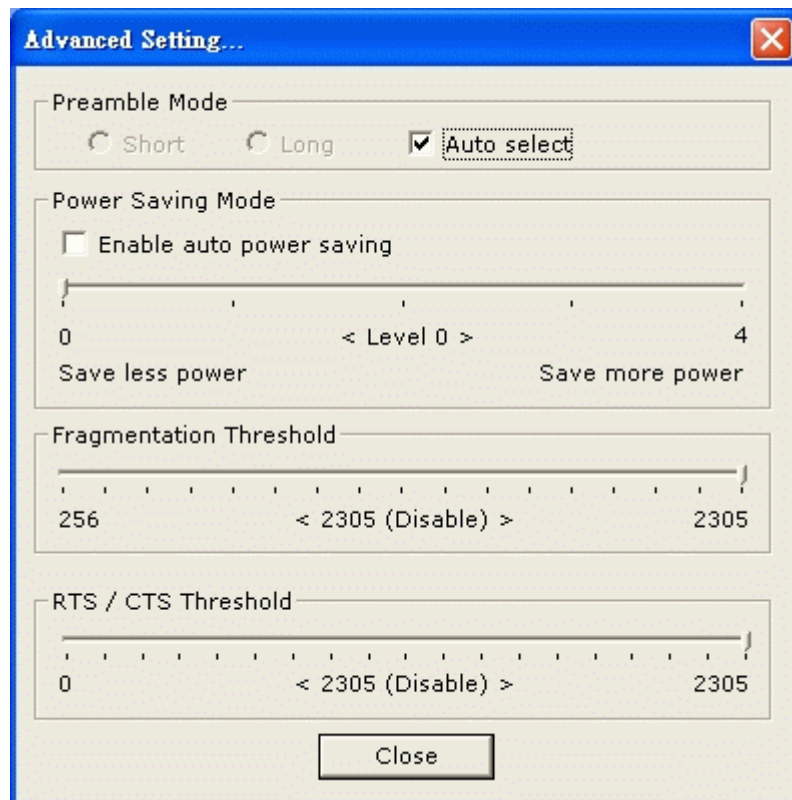

Figure 4.8.1

Information

About driver, firmware and utility version..... (*See Figure 4.8.2*)

Figure 4.8.2