
User's Manual
ACTISYS ACT-WF8000U



Model ACT-WF8000U

2 in 1 WLAN / FIR Combo Adapter



Fast, Secure, Easier Connection



NOTICE:

1. Please install USB driver to active your USB port **BEFORE** plugging in ACT-WF8000U
2. Please install the driver of the bundled CD first. If you have plugged WF8000U and install the Windows native driver before, please remove it and reinstall as Chapter 8, 9.

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FCC & VCCI Compliance Statement

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-FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user authority to operate this equipment

NOTE: This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to Part 15 of the FCC Rules. 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 nor 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:

- Increase the separation between the equipment and receiver.
- Reorient or relocate the receiving antenna.
- 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.

This equipment is in the 2nd Class category (information equipment to be used in a residential area there to) and conforms to the standards set by the Voluntary Control Council For Interference by Data Processing Equipment and Electronic Office Machines aimed at preventing radio interference in such residential area.

When used near a radio or TV receiver, it may become the cause of radio interference. Read the instructions for correct handling.

NOTE: Must be used with shielded cable only.

FOR YOU RECORDS.....

For your assistance in reporting this product in case of loss or theft, please record below the model number and serial which are located on the bottom of the case. Please retain this information.

Model Number	Serial Number
Date of Purchase	Place of Purchase

All indicated copyrights and trademarks in the following pages are copyrights and trademarks of their respective corporations.

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2. INTRODUCTION

ACTiSYS WF8000U is an advanced 2 in 1 USB interface dongle combining 4MbpsFast Infrared (ACT-IR4000US) and WLAN client that comply with the IRDA Standard and the IEEE 802.11b Standard. The Fast Infrared support reliable high speed data transmission securely. The IEEE 802.11b Ethernet standard allows you to connect computers and devices at speeds up to 11Mbps, dependent upon the distance between wireless adapters, the configuration of your working environment, or the capabilities or limitations of your computer systems.

This adapter gives you the flexibility to connect it to any 802.11b network and IrDA devices.

- Fully compliant to USB specification 1.1 and IrDA specification 1.1
- Full-speed (12 Mbps) USB device operation
- Supports FIR (4Mbps) and all SIR speeds (9.6, 19.2, 38.4, 57.6 and 115.2Kbps).
- Bus-powered device. Obtain power from USB port. No external power supply required.
- Not occupy PC's COM or Parallel port and has no complicated hardware port and resource setting and conflict, such as IO address / IRQ / DMA numbers.
- True PNP (Plug And Play) device. Without re-installing USB driver when re-plugs in.
- 128-bit Wired Equivalent Privacy (WEP) data encryption.Dimension / Weight : 95mm (L) X 38mm(W) X 17(H) / 28gm

3. PACKAGING CHECK LIST

The package includes

1. ACT-WF8000U USB Dongle
2. USB Cable
3. ACT-IR4000US / WF8000U Adapter Driver and CD for User's manual.

4. SYSTEM REQUIREMENTS

To use ACT-WF8000U, your computer MUST meet the following requirements.

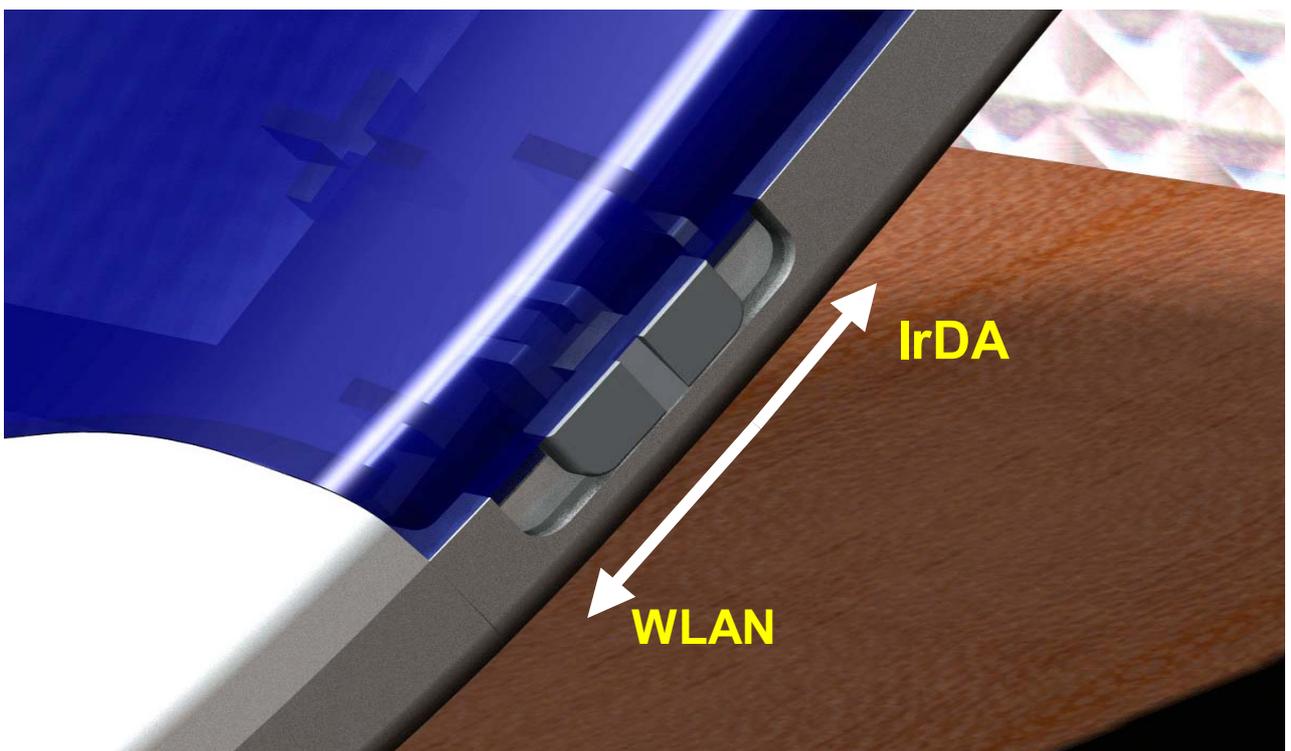
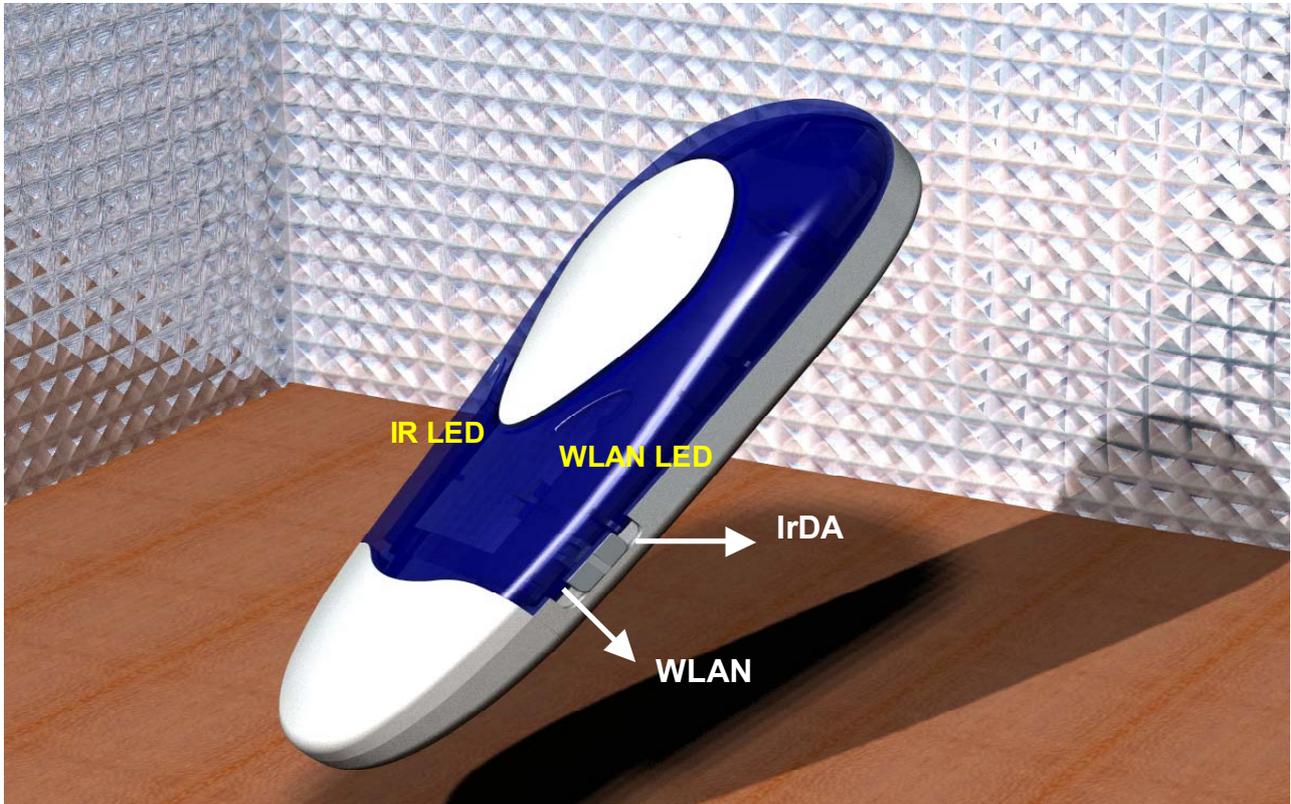
1. Windows 98SE/ME/2000/XP.
2. One unoccupied USB port.

5. BIOS SETUP

Before you use this device, You MUST enable your computer USB port in BIOS Settings.

6. How do start using WiFIR ACT-WF8000U

Choose whether you want to use WLAN or IrDA by shifting the switch. Shift the switch toward the USB connector for WLAN and away from the USB connector for IrDA. The LEDs located at both sides will indicate which functions are being used.



7. ACT-WF8000U IrDA DRIVER INSTALLATION FOR WINDOWS 2000/ME/98SE

7.1 Infrared Installation (IR-4000US Installation) :

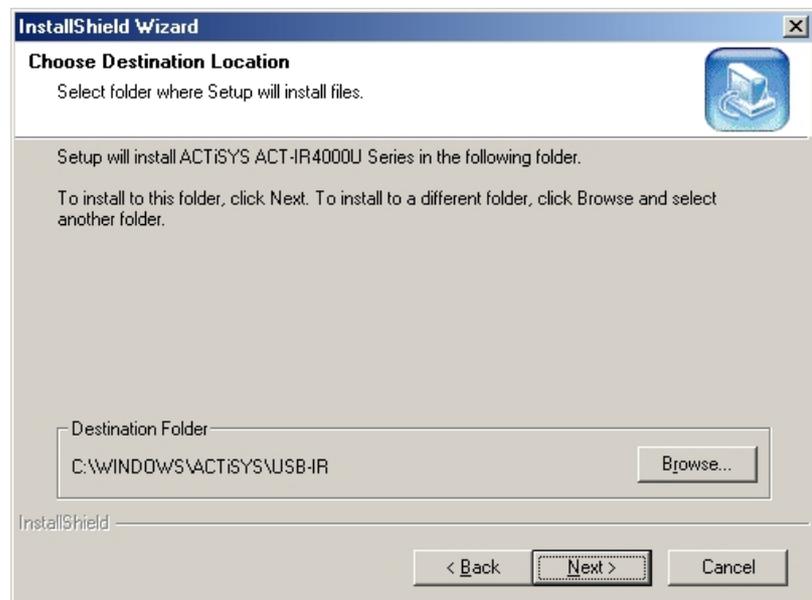
Following are the instructions to properly install the ACTiSYS ACT-WF8000U under, Windows 2000, Windows ME, and Windows 98SE.

Important: Do NOT use Windows' Native Driver. Please use the driver on this CD to assure a smooth installation.

1. Insert the attached CD to CD-ROM, select IrDA, IR4000US driver Installation then it will execute Install Shield Wizard. Please Click on **Next** to continue.



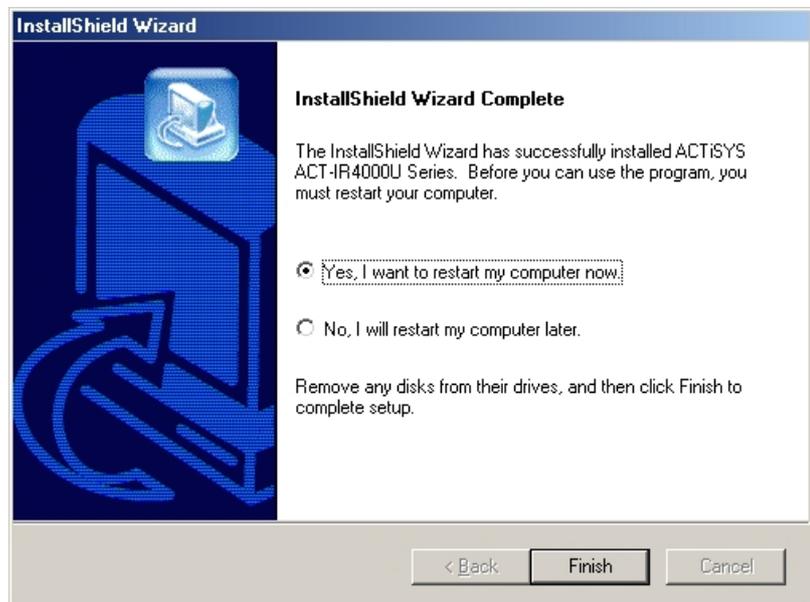
2. The Installer will install Actisys IR4000US in the Destination Folder. To install to a different folder, click **Browse** and select one. To continue, click on **Next**.
3. Setting the adapter switch to IR position (far away from the USB end). On afterwards plug the USB, the green LED lights on the other side.



4. To complete the IR installation, plug the Actisys ACT-WF8000U into the USB port. If the Actisys ACT-WF8000U Series is already plugged in, remove it then re-insert it. Click on **Finish** to continue.



5. Windows will now detect the ACTISYS ACT-WF8000U Series. In some operating systems, you may need to restart your computer. If so, click "Yes" to continue and when the IR LED flashes every 3-second, installation is completed.



7.2 WLAN Installation:

The following section will assist you to install WF8000U adapter successfully. You will install driver firstly and then plug in the WF8000U adapter, and finally set the network properties to accommodate resource sharing and select the type of wireless network that you want to install.

in order to establish your wireless network connection, make sure some steps below will be performed.

- Install the Access Point (AP) at first.
- Install the driver using the Installation CD.
- Plug in the WF8000U adapter with the switch on WLAN position (see page 6).
- Install the network protocol(s) required to communicate on your network. Most likely you will need the TCP/IP protocol.

The Octopus Wireless LAN Configuration Utility is installed simultaneously with the driver by executing the Setup.exe file. Note also that some versions

of Microsoft Windows operating systems require administrator to install software. If this is the case for your operating system, be sure that you have such privileges before executing the Setup.exe file. To upgrade an existing driver, it is not necessary to remove your Octopus driver from your computer. Simply run the Setup.exe file to replace the existing driver with the latest version. After the new driver is installed, maybe you must restart the operating system (depend on the Windows' OS).

Please follow the following steps one by one in order to install the WF8000U adapter successfully.

Before you proceed with the installation, please notice following descriptions.

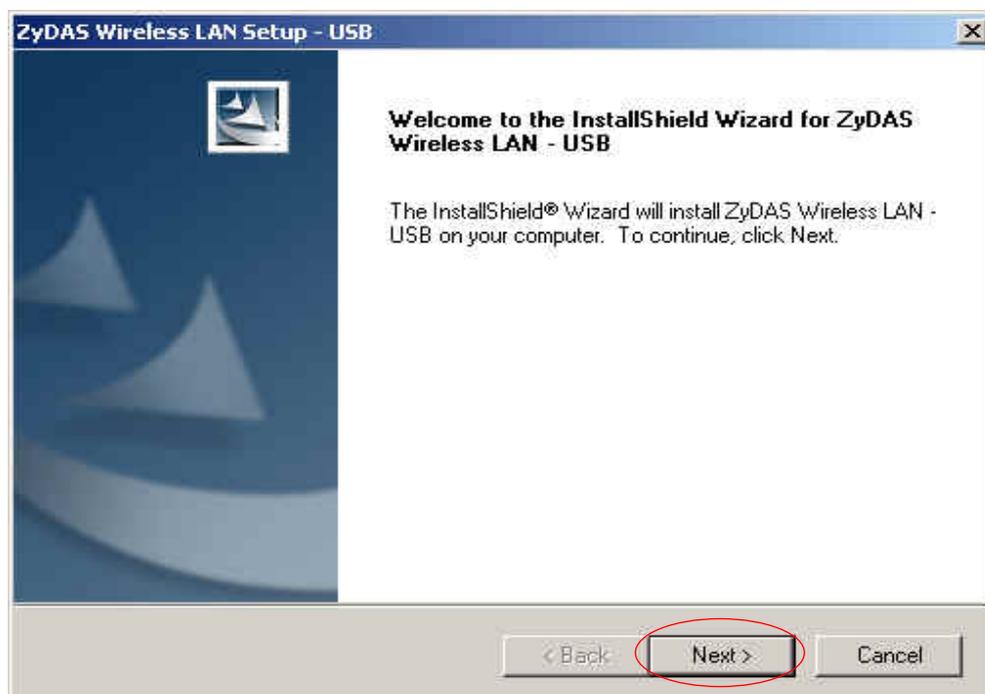
Note1: After running the driver package, the Notebook (or PC) with Win98 OS shall be restarted, for Win2000 or WinXP OS the Notebook (or PC) doesn't need to be restarted.

Note2: Please do not insert USB WF8000U adapter into USB port of your computer until Application setup has been completed.

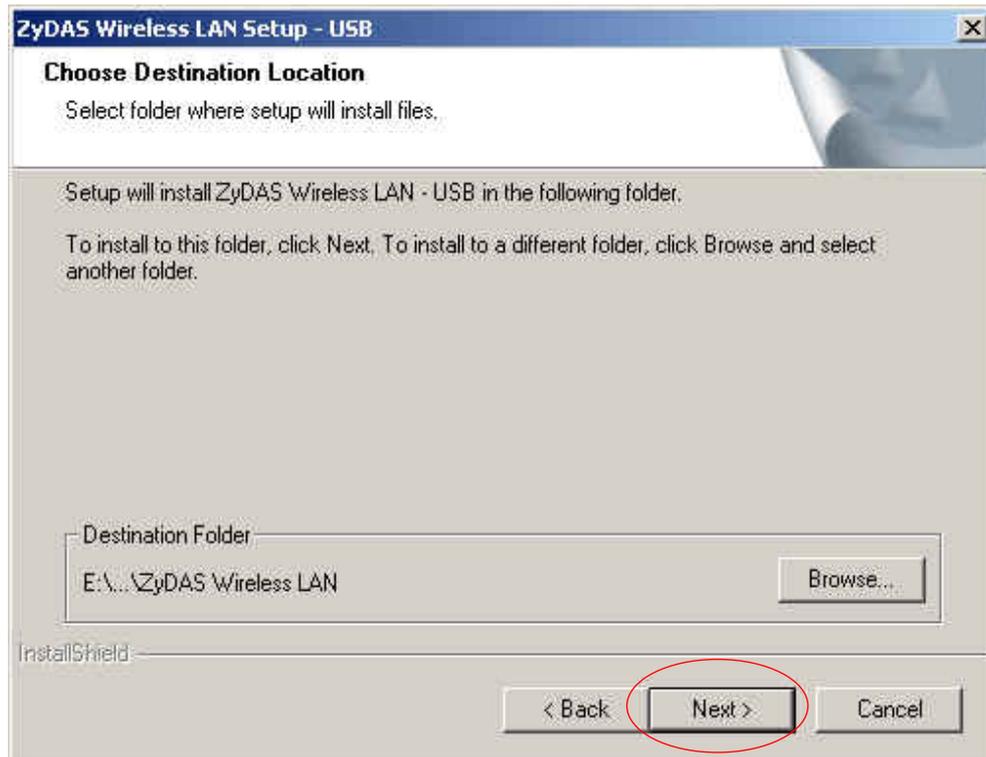
7.2.1 For Windows 2000

Install the Driver and Utility

1. Insert the CD and execute the program of " WS1U4108_WHQL_SWAP_CHANGE_BIN.exe" for your purchased WF8000U to select. The Install Shield Wizard box will appear, click "Next" to continue.



2. Choose install folder



- Don't care below to click "Yes" button to next step.

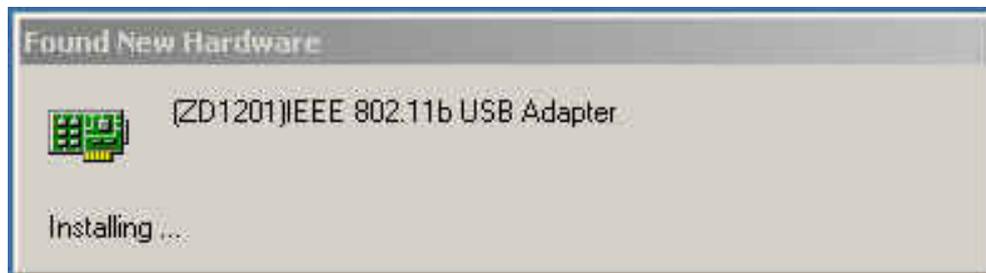


3. Confirm the adapter switch to WLAN position (close to the USB end). On afterwards plug the USB, the red LED lights on.
4. Insert the WF8000U adapter into the USB port of your computer, the system will automatically find the device and search for its software then the Install Shield Wizard finished installation and the system tray icon is loaded in the taskbar (see illustration below.).

- Don't care below to click "Yes" button to next step.



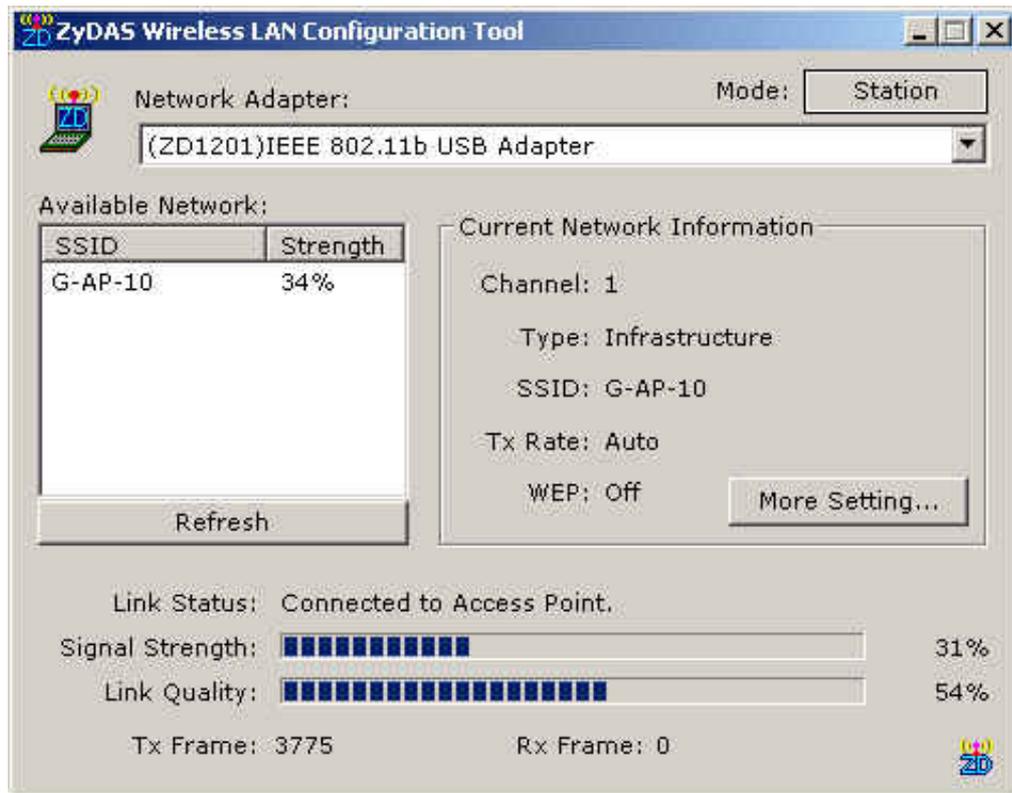
- Found New Hardware and Installing.



- Please click "**Start->All programs->ZyDAS Wireless LAN-USB->ZDConfig**". The TM icon will appear.



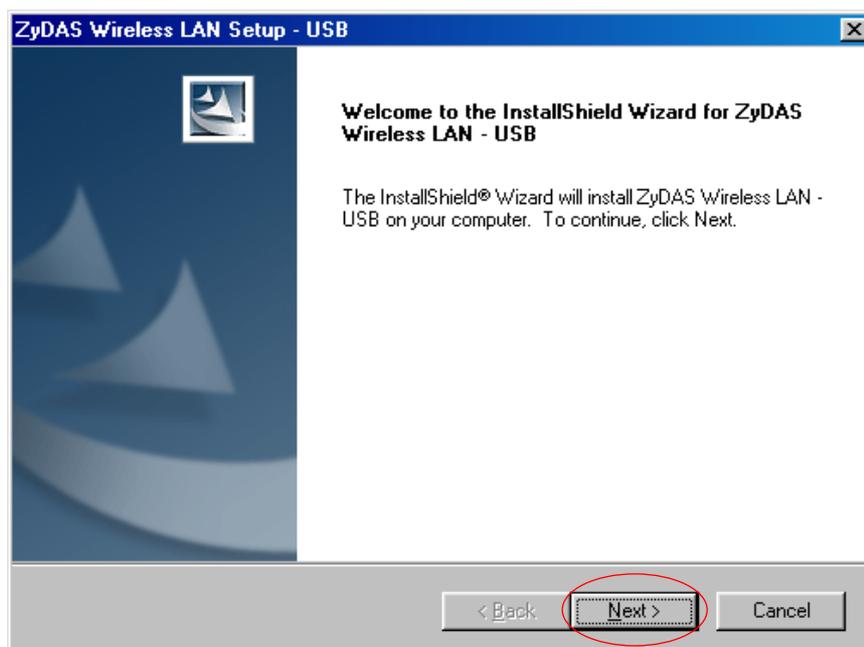
- The "WF8000U Configuration" screen will appear.



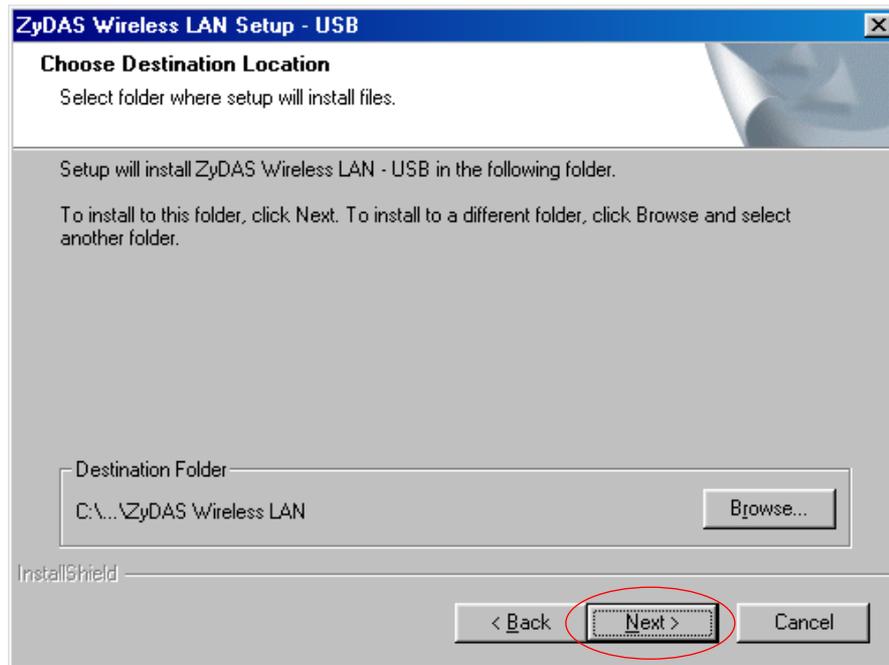
7.2.2 For Windows 98SE

Install the Driver and Utility WF8000U Adapter

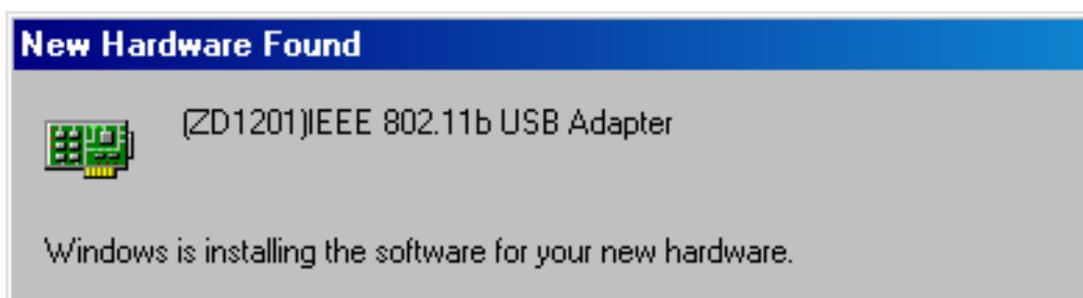
1. Insert the CD into the CD-ROM device and execute the program of "WS1U4108_WHQL_SWAP_CHANGE_BIN.exe" for your purchased WF8000U to select. The Install Shield Wizard box will appear, click "Next" to continue.



2. Choose install folder



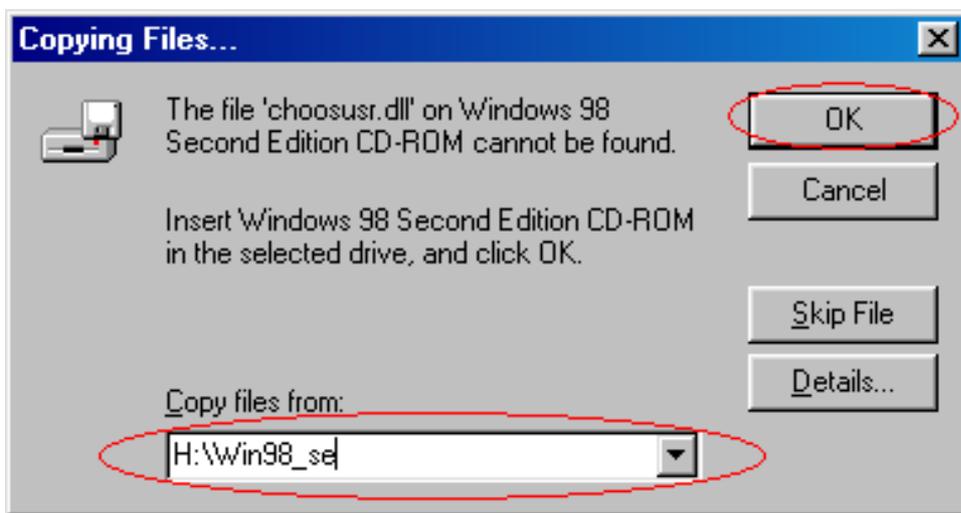
3. **After running the driver package, the Notebook (or PC) with Win98 OS shall be restarted**
 4. Confirm the adapter switch to WLAN position (close to the USB end). On afterwards plug the USB, the red LED lights on.
 5. Insert the WF8000U adapter into the USB port of your computer, the system will automatically find the device and search for its software then the InstallShield Wizard finished installation and the system tray icon is loaded in the taskbar (see illustration below.).
- New Hardware Found



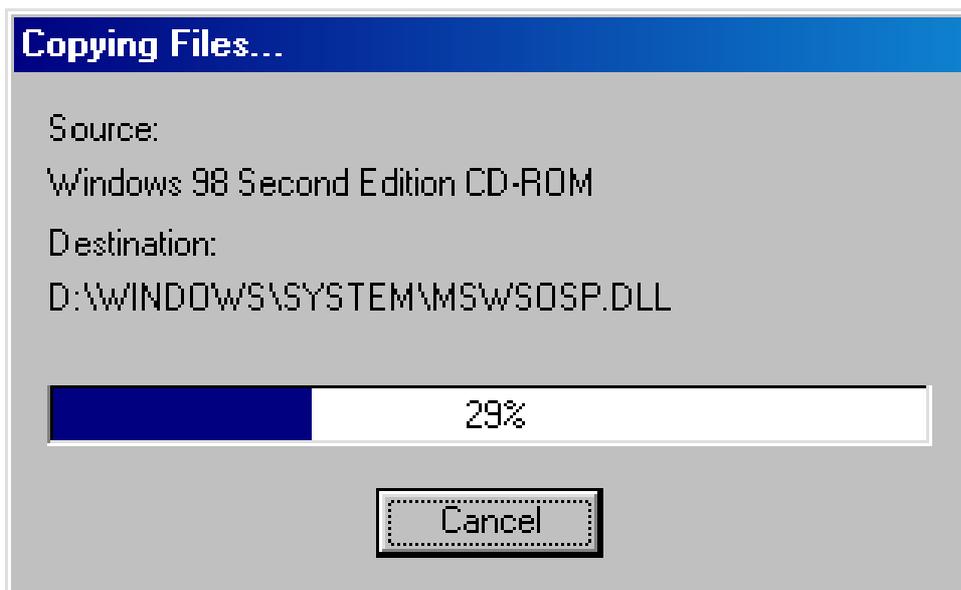
- Please insert the disk labeled "Windows 98 Second Edition CD-ROM."



- To Choose Windows 98SE installing folder



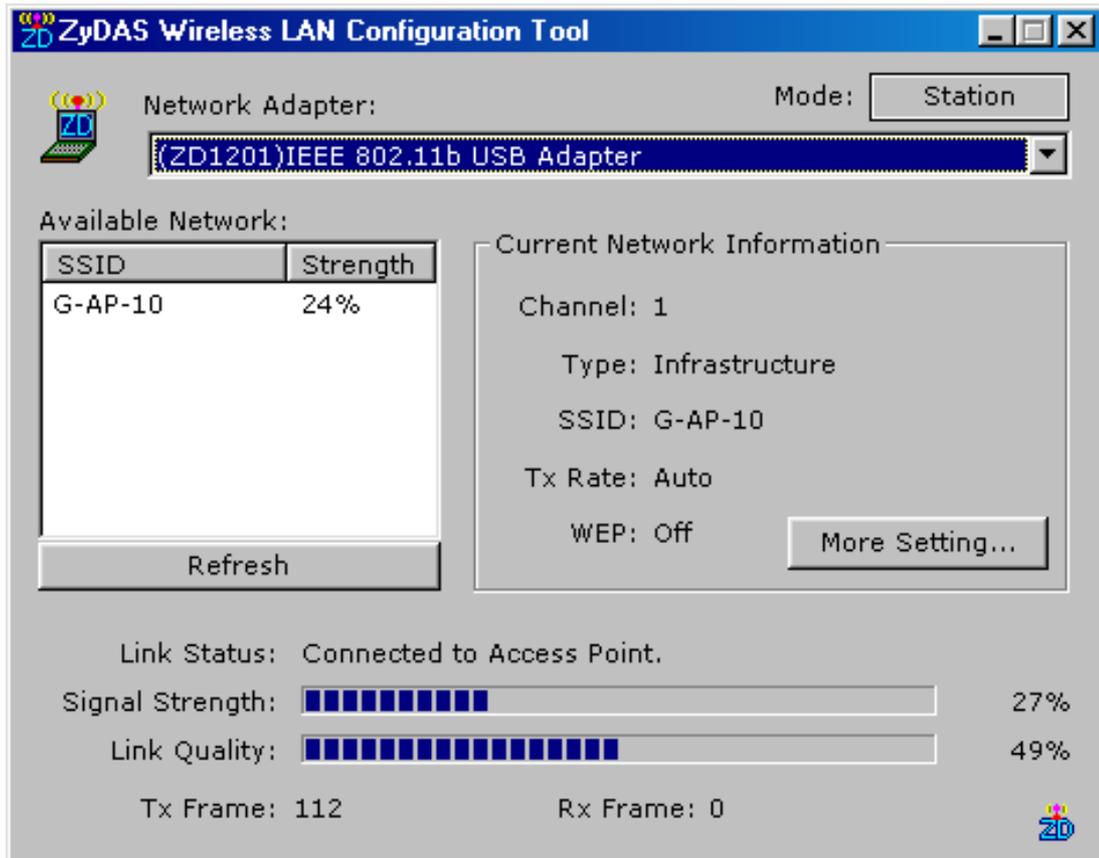
- Copying Files



- Please click **“Start->All programs->ZyDAS wireless LAN USB ->ZDConfig”**.
The WF8000U icon will appear.



- The “WF8000U Configuration” screen will appear.



7.2.3 For Windows ME (similar to 2000/98SE)

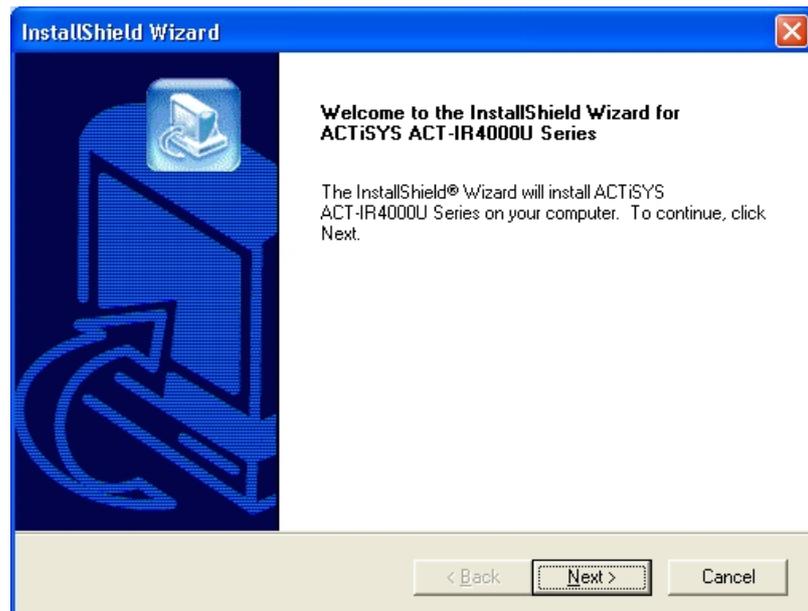
8. ACTISYS ACT-WF8000U IrDA DRIVER INSTALLATION FOR WINDOWS XP

8.1 Infrared Installation (IR4000US Installation):

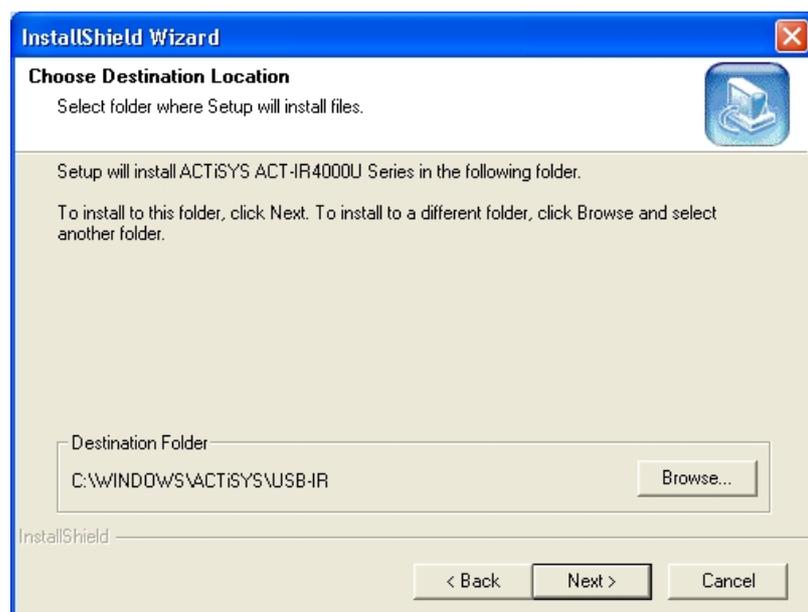
Following are the instructions to properly install the ACTiSYS ACT-WF8000U under Windows XP.

Important: Do **NOT** use Windows' Native Driver. Please **use the driver on this CD** to assure a smooth installation. If you have plugged WF8000U into USB port and mistakenly loaded WindowsXP Native Driver, please refer to the "WF8000U WindowsXP Native Driver Remove Procedure" to remove the driver and follow the "ACTiSYS ACT-WF8000U Driver Installation for Windows XP" to re-install the driver.

1. Insert the attached CD to CD-ROM, select IR, driver Installation. It will execute Install Shield Wizard. Please Click on **Next** to continue.



2. The Installer will install Actisys WF8000U in the Destination Folder. To install to a different folder, click **Browse** and select one. To continue, click on **Next**.



- WinXP will detect the ACTISYS ACT-WF8000U Series. Select **Install the software automatically (Recommended)**. Please note you should take the CD out of the CD-ROM **BEFORE** clicking on **Next**.



If you kept the CD in the CDROM, Windows XP will automatically search for all drivers compatible with WF8000U. You will see a window with a choice of different drivers, please select the OEM one. (If you install the driver to WindowsXP, the driver will automatically copy to Hard disk C:\Windows). Please highlight "C:\Windows\inf\oem0.inf" and click "OK" button, the WindowsXP system will automatically install WF8000U.

- WinXP will detect the updated drivers. Click on **Continue Anyway** to continue.



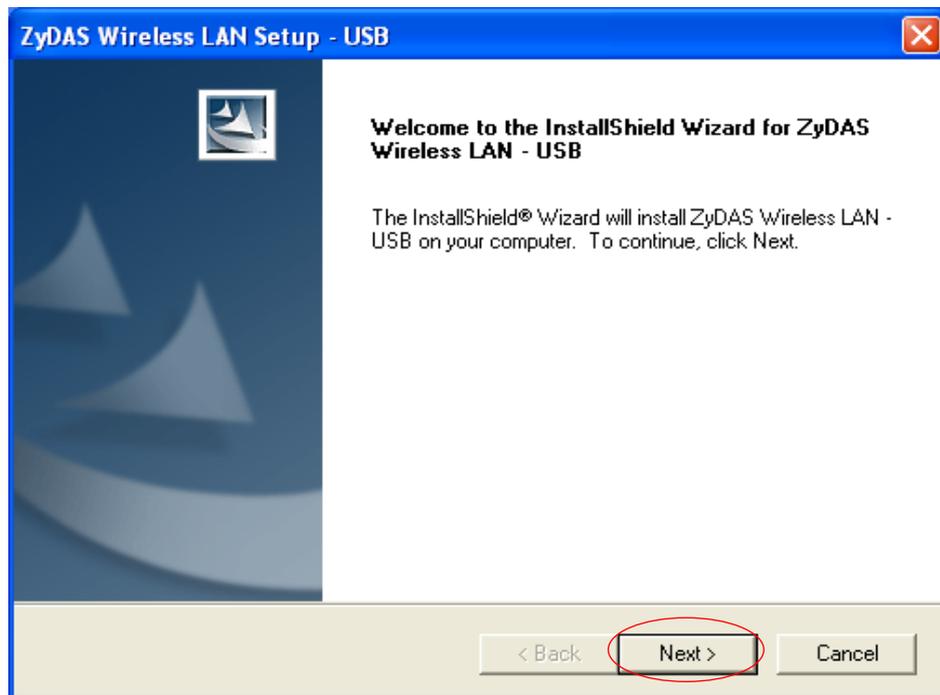
3. 8. Click on **Finish** to complete the installation. and when the IR LED flashes every 3-second, Installation is completed.



9. ACTISYS ACT-WF8000U WLAN INSTALLATION

Install the Driver and Utility

1. Insert the CD into the CD-ROM device and execute the program of "WS1U4108_WHQL_SWAP_CHANGE_BIN.exe" for your purchased WF8000U to select. The Install Shield Wizard box will appear, click "Next" to continue.



2. Choose install folder

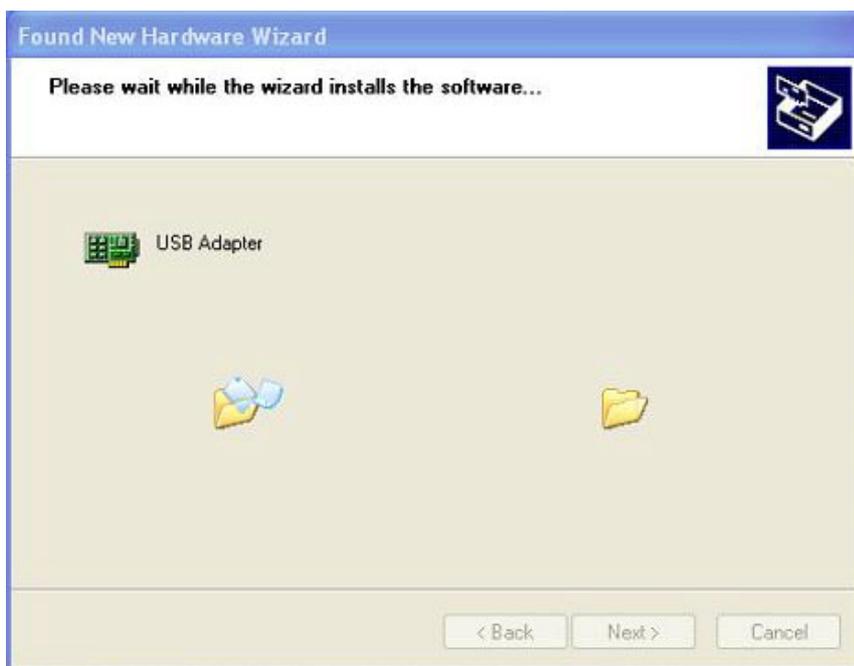


3. Confirm the adapter switch to WLAN position (close to the USB end). On afterwards plug the USB, the red LED lights on.

4. Insert the WF8000U adapter into the USB port of your computer, the system will automatically find the device and search for its software.



- Please wait while the wizard installs the software.



- Don't care below to click "Continue Anyway" button to next step



- Please wait while the wizard installs the software.



- Completing the "WF8000U Adapter" installing the software.



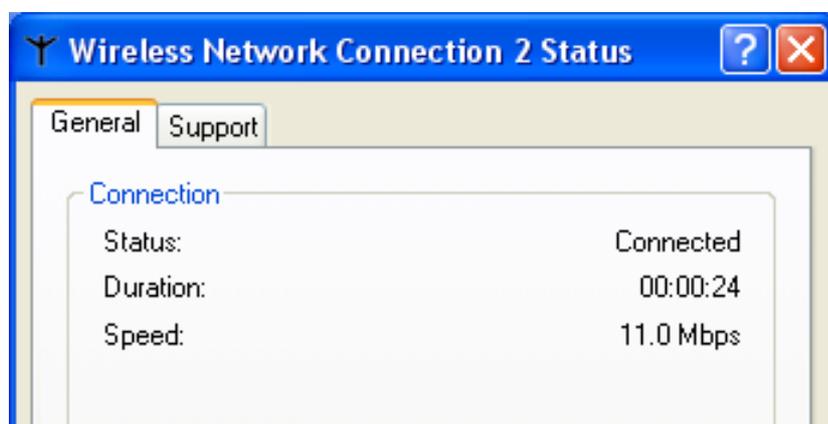
7.3 Using the Windows XP's Utility

To connect to your wireless network, please do the following:

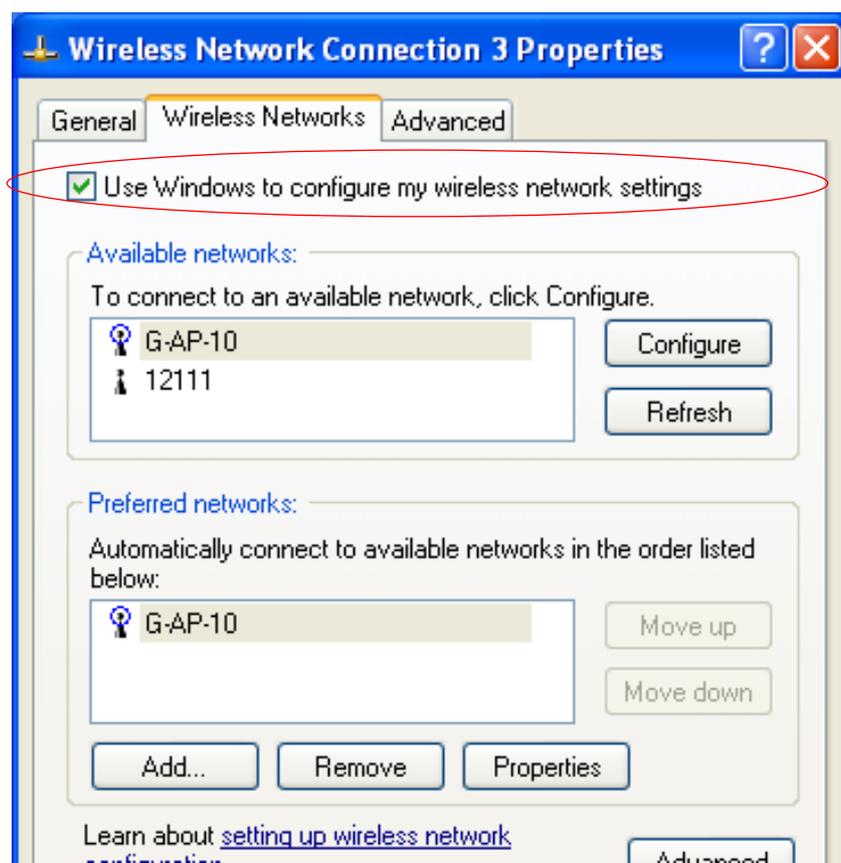
- Double-click the icon marked in red in the taskbar and you may start using the Windows XP's wireless utility



- To click "Properties" to next step.



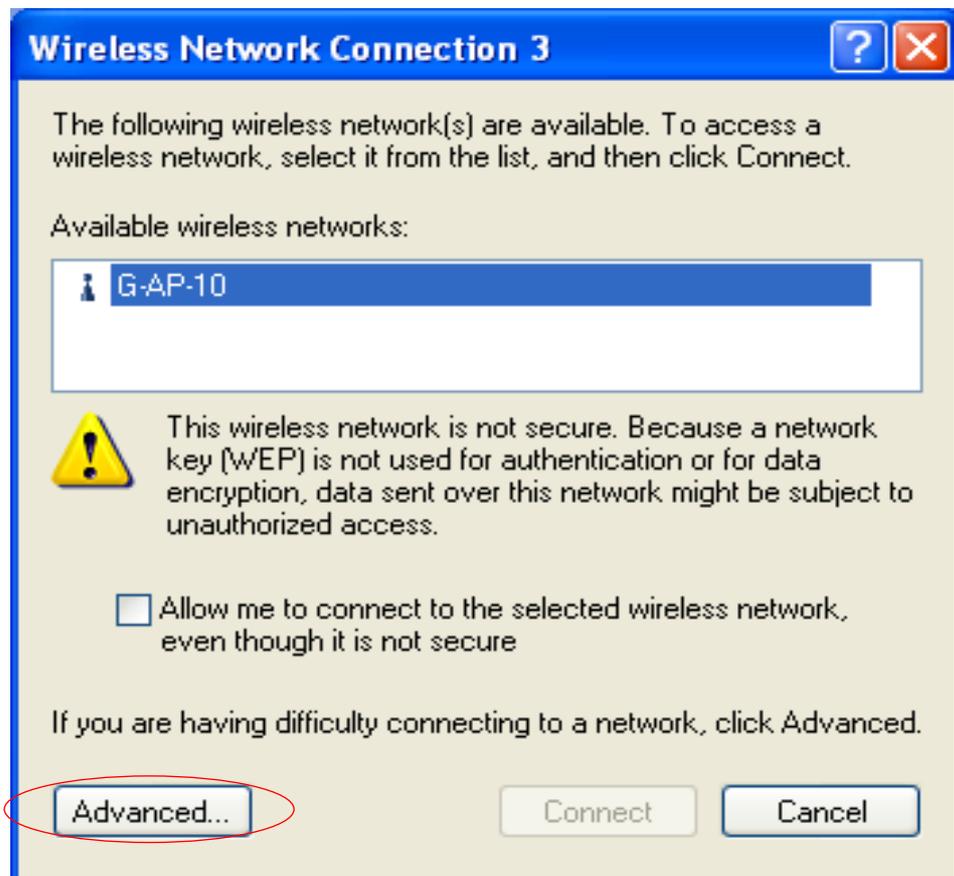
- © The “Connect to Wireless Network” window will contain a list of all the available Wireless Networks. Select the proper network for your needs. In this example, “TwinMOS-AP(TM-AP)” network was selected as shown.



7.4 Using the Utility of WF8000U adapter

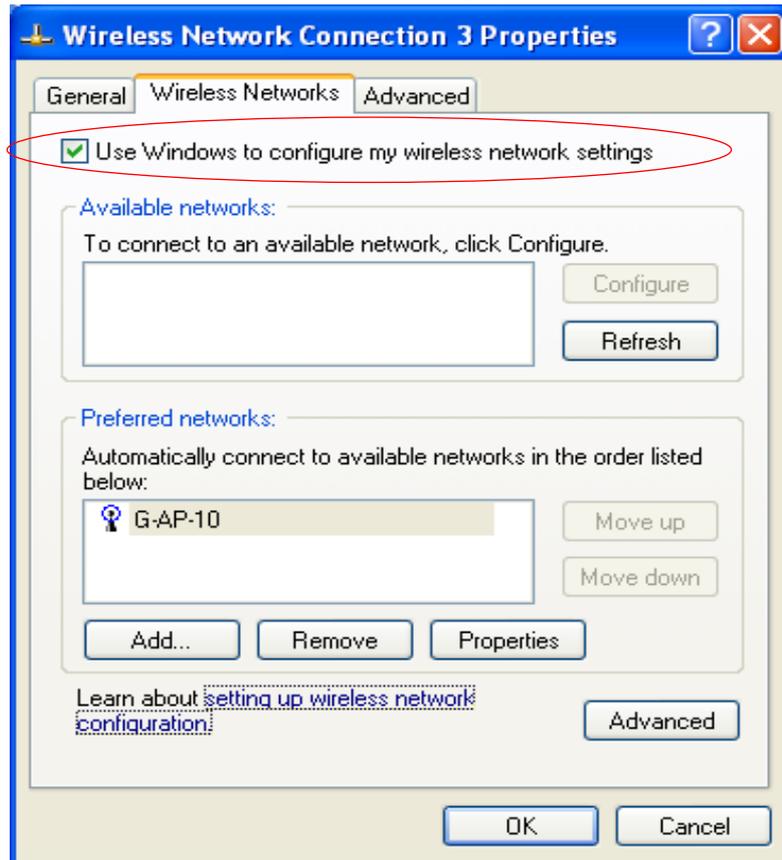
Note: If you don't disable the XP's Utility, you can not open the adapter's utility.

- © Get into Windows XP's utility, click "Advanced" button.



- © In "Wireless Network Connection Properties" screen, uncheck the setting "Use

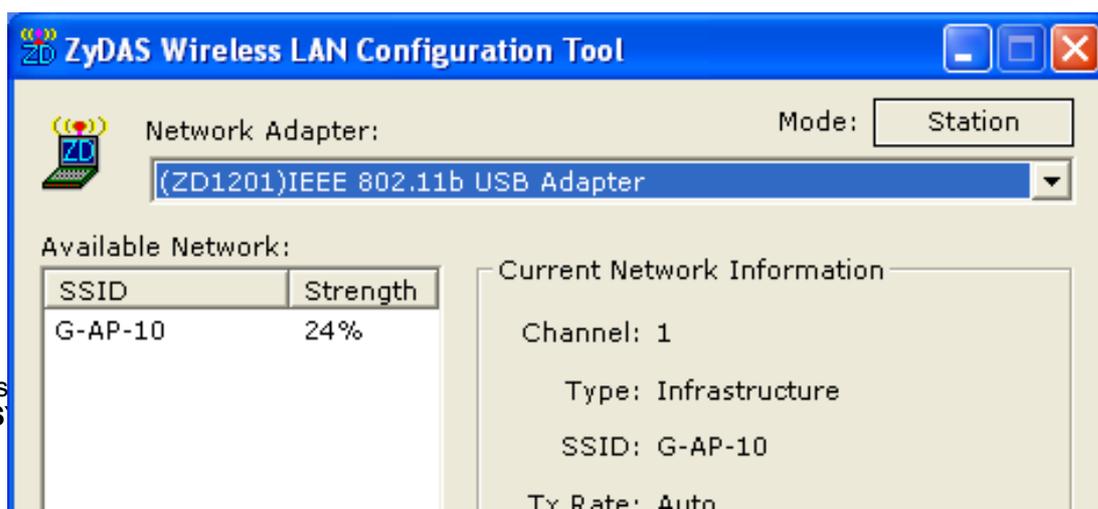
Windows to configure my wireless network settings“. Note that if you want to change back to the Windows XP built-in utility, check the item again.



© Please click “Start->All programs->ZyDAS wireless LAN USB ->ZDConfig”. Double-click on the icon shown below. The “TwinMOS WLAN Configuration” screen will appear. Double click the icon and start using the WLAN USB Stick Adapter.



- The “WF8000U Configuration” screen will appear.



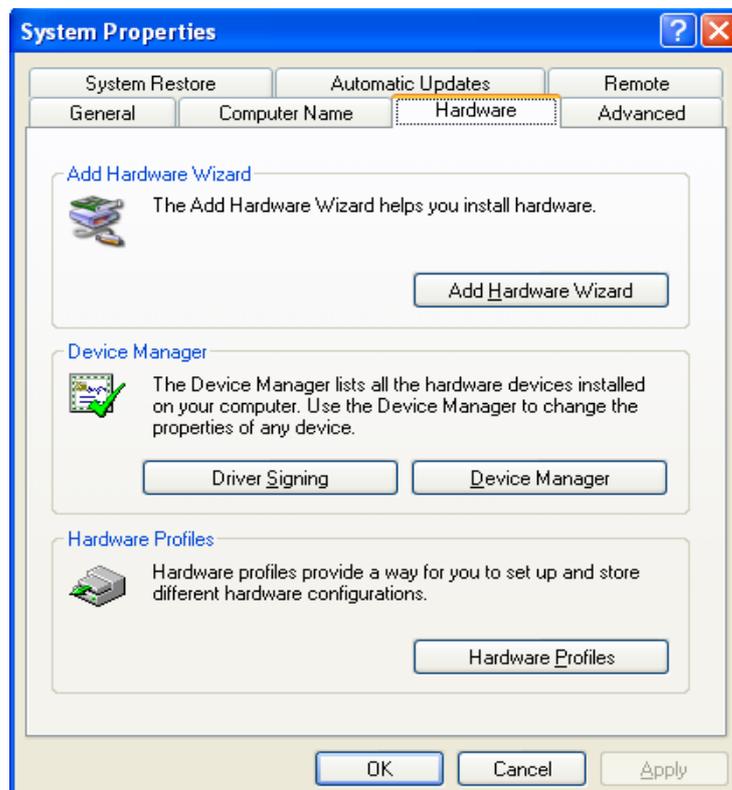
1 ACTISYS ACT-WF8000U WINDOWS XP NATIVE DRIVER REMOVAL PROCEDURE

Your ACTISYS ACT-WF8000U is shipped with the latest driver on the CD. If you had already installed the Windows XP Native Driver, the following steps will remove the Native Driver and then you can follow the ACTISYS ACT-WF8000U Installation Instruction to install the latest driver.

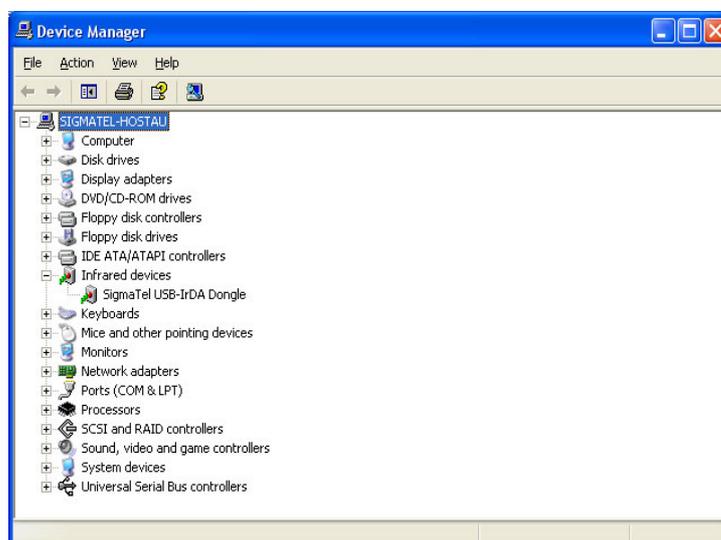
How do you know whether you have the Windows XP native driver?

Answer: It is YES if your product name is “SigmaTel USB-IrDA Dongle.” Figure 1 and 2 will tell you whether this is the case or not.

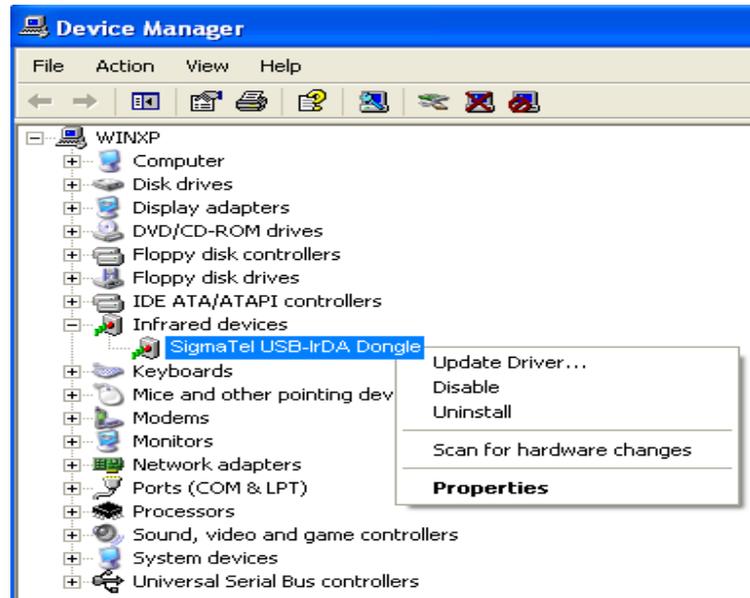
1. Go to **Control Panel**, click **System** Icon then click **“Device Manager”**



2. You will see **“Infrared Devices”** at the **Device Manager**. Click and it will show **“SigmaTel USB-IrDA Dongle”**



5. Right click on “**SigmaTel USB-IrDA Dongle**”.
Click on **Uninstall**.



4. You will see a “**Confirm Device Removal**” Window then press **OK**.



5. You have completed the removal of the Windows XP Native Driver. Click on **Yes**.



Congratulation! You have successfully removed the Windows XP Native Driver for the USB Infrared Adapter.

Before the PC is restarting, you should **un-plug your ACT-WF8000U USB connector from the PC's USB port.**

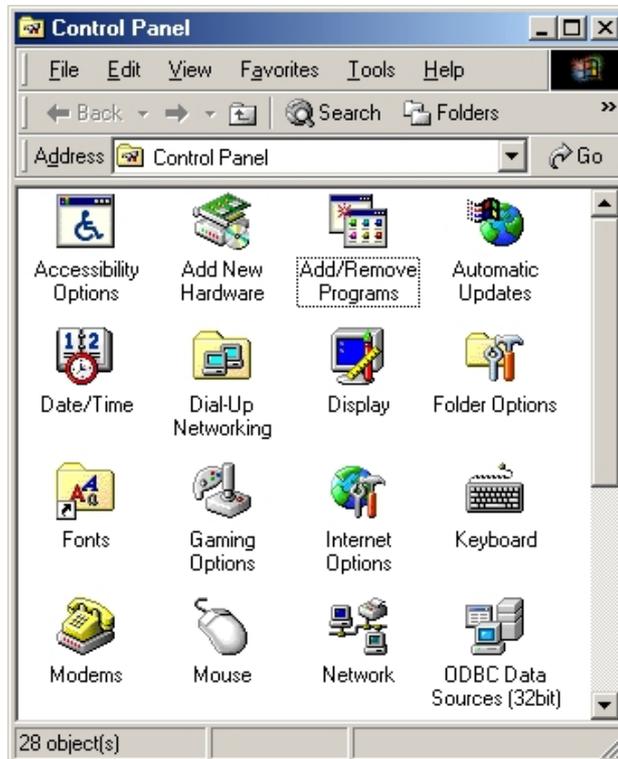
Please refer to ACTiSYS ACT-WF8000U Installation Instructions for Windows XP Home or Professional.

2 ACT-WF8000U DRIVER REMOVAL FOR WINDOWS XP/2000/ME/98SE

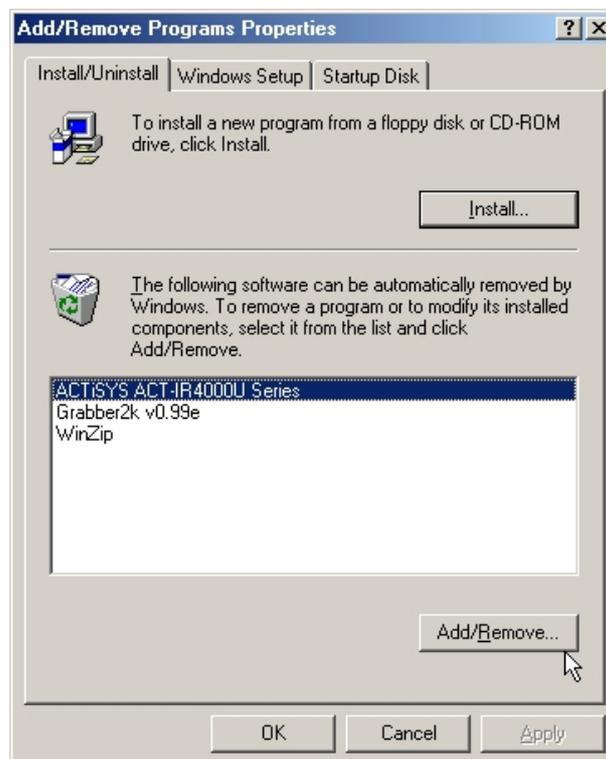
Following are the instructions to properly uninstall ACTiSYS ACT-WF8000U (e.g. IR4000US, WLAN is similar) under Windows XP, Windows 2000, Windows ME, and Windows 98SE.

Important: Please keep the ACTiSYS ACT-WF8000U plugging into the computer until prompted to remove it.

1. Open the **Control Panel** and select **Add / Remove Programs**.



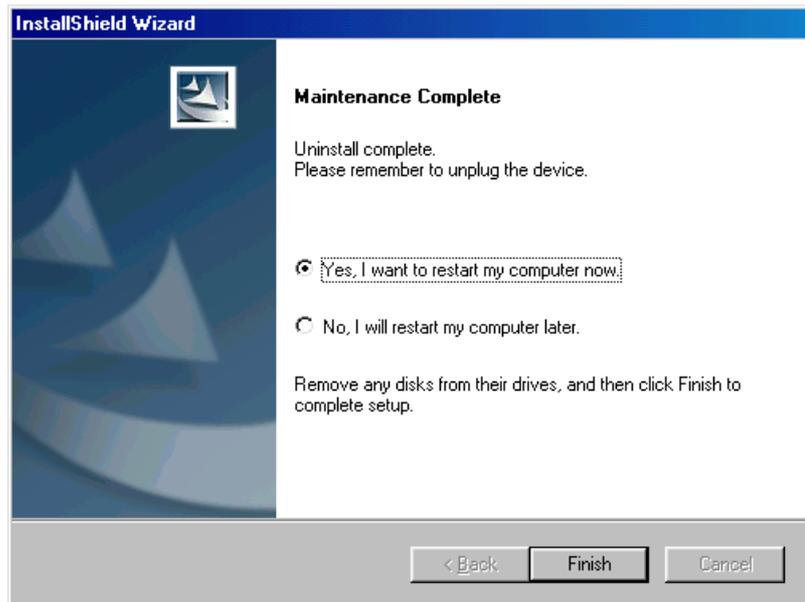
2. Select **ACTiSYS ACT-IR4000US** from the list. Click on the **Add/Remove** button to begin the uninstall process.



- 3. To continue, click the **Yes** button to uninstall the ACTiSYS ACTIR4000US Adapter.



- 4. To complete the removal process, click the **Finish** button. Unplug the ACTiSYS ACT-IR4000US from your USB jack.



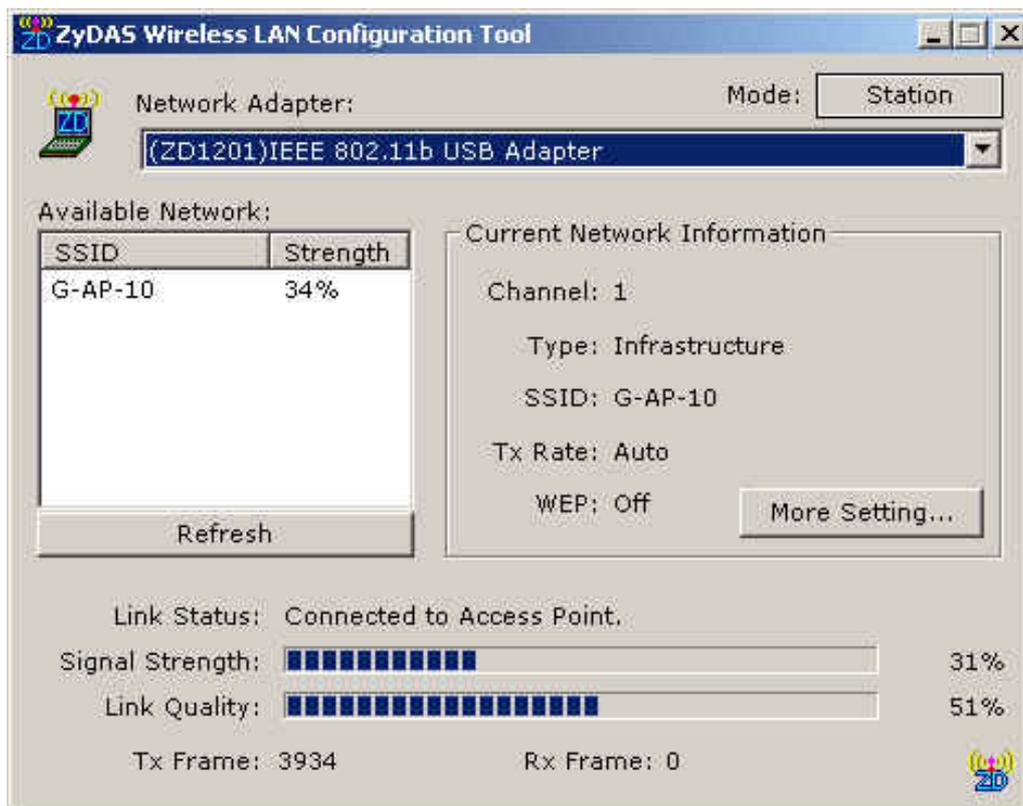
3 WLAN CONFIGURATION UTILITY

Note: The following Configuration Utility was operated under Windows 2000. (Procedures will be the same for Windows 98SE/XP.)

Wf8000U uses the Configuration Utility as the management software. The utility provides the user an easy interface to change any settings related to the wireless adapter. When the computer is started, the Configuration Utility starts automatically and the system tray icon is loaded in the toolbar (see illustration below.) Clicking on the utility icon will start the Configuration Utility.



Double-click on the icon shown above. The screen below will appear.



Available Network

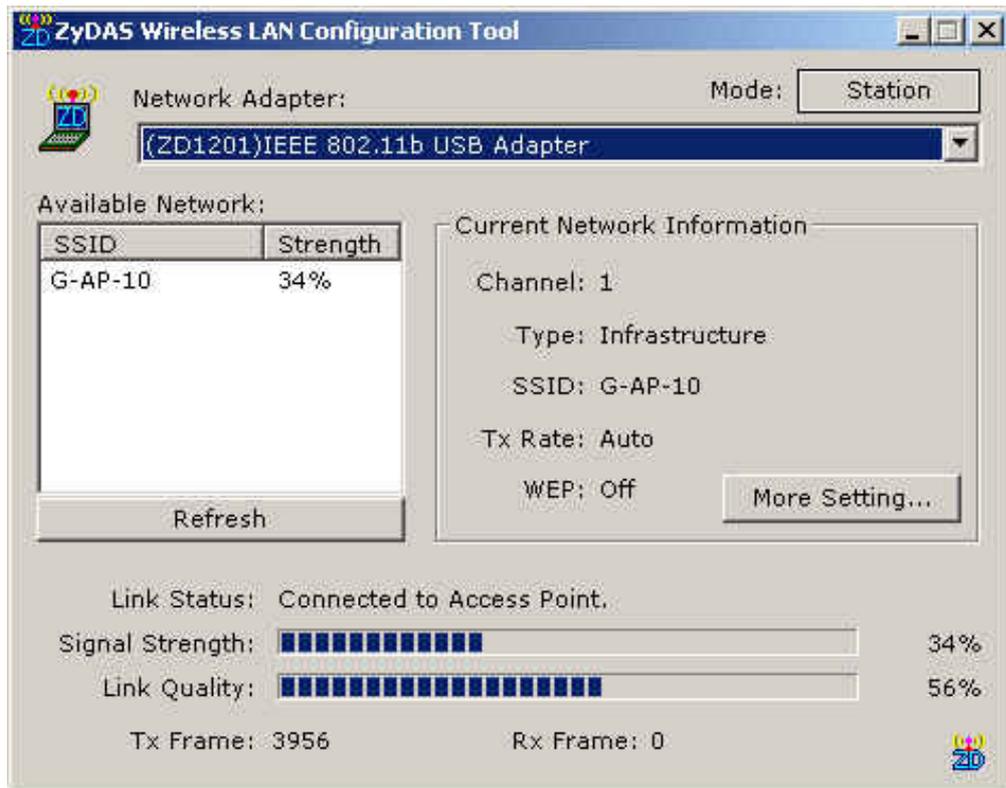
This screen shows all Access Points or Adapters nearby when operating in Ad-Hoc mode. Click “Refresh” button to collect the SSID and Strength information of all the wireless devices nearby. If you want to connect to any device on the list, double-click the item on the list, and the adapter will automatically connect to the selected device.

Link Quality

This bar indicates the quality of the link. The higher the percentage, the better the quality.

Signal Strength

This bar shows the signal strength level. The higher percentage shown in the bar, the more radio signal been received by the adapter. This indicator helps to find the proper position of the wireless device for quality network operation.



General Connection Setting Table

Select the More Setting Page to access the Configuration menu, as shown below.

You can make changes to any of the fields shown below, without the need to restart your computer.



Network Type

The **WF8000U** adapter can operate in one of two modes, which are specified in the Mode field of the Configuration menu. Clicking the down arrow at the right of the Mode field displays the available modes.

- **Ad-Hoc** - This is the 802.11b Ad-Hoc mode of operation. In “Ad-Hoc” mode, only one wireless “ cell ” is supported for each different NETWORK NAME. All communication is done from client to client without the use of an Access Point. “Peer-to-Peer” networking uses the same NETWORK NAME for the wireless adapters in establishing the network connection. When “Ad-Hoc ” mode is selected, the utility will provide a selection for setting the channel.
- **Infrastructure** - This mode of operation requires the presence of an 802.11b Infrastructure. All communication is done through the Infrastructure, which relays packets to other wireless clients as well as to nodes on a wired Ethernet network.
- **Pseudo IBSS** - This mode is for manufacture testing.

Channel

When communicating in Ad-Hoc mode, you must specify a channel on which communications will take place. This field is grayed in infrastructure mode because the Access Point automatically selects the channel.

Tx Rate

The Transmit Rate field specifies the rate at which the radio in your WF8000U adapter transmits and receives data. You can set this to the following fixed rates: 1 Mbps; 2Mbps; 5.5 Mbps or 11 Mbps.

Auto - When it is enabled, the device will choose the most suitable transmission rate automatically.

SSID

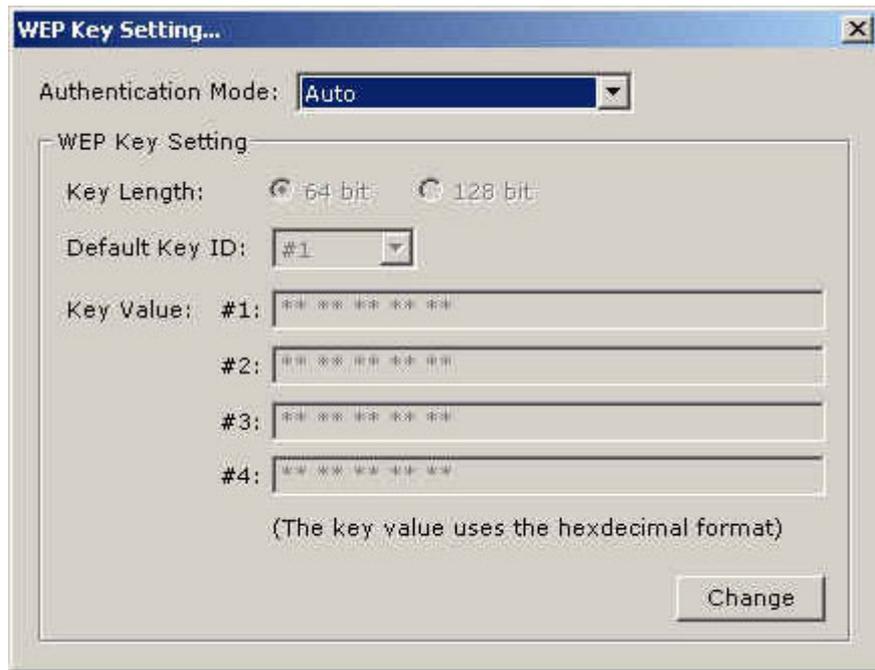
The name of the wireless network. This name cannot be longer than 32 characters. The default value is “any”, which will automatically scan and connect the best performance Access point nearby. You may specify a SSID for the adapter and then only the device with the same SSID can interconnect to the adapter.

Apply

Click “Apply” button to save and implement the new settings.

Encryption Setting Table

“WEP Key Setting” page allows you to enhance the security of a network. Every station in a secured network should enable the Encryption function and the values of the Network Key should be the same.



Authentication Mode

This setting has to be consistent with the wireless devices, which the adapter intends to connect.

- Open System** – No authentication is needed among the wireless devices.
- Shared Key** – Only wireless devices using a shared key (WEP Key identified) are allowed to connecting each other. Setup the same key as the wireless devices, which the adapter intends to connect.
- Auto** – Auto switch the authentication algorithm depending on the wireless devices, which the adapter is connecting to.

Key Length

You may select the 64-bit or 128-bit to encrypt transmitted data. Larger key length will provide higher level of security, but the throughput will be lower.

Default Key ID

Select one of the keys (1~4) as the encryption key.

Key Value

The keys are used to encrypt data transmitted in the wireless network. Fill the text box by following the rules below.

- 64-bit** – Input 10 digit Hex values (in the “A-F”, “a-f” and “0-9” range) as the encryption keys. For example: “0123456aef”.
- 128-bit** – Input 26 digit Hex values (in the “A-F”, “a-f” and “0-9” range) as the encryption keys. For example: “01234567890123456789abcdef”.

Profile Table

Profile name

A profile is a named set of operating parameters for your WF8000U adapter. The Profile field lets you set values for all parameters by selecting a previously defined profile. Click the down arrow at the right of the Profile field to display the available profiles for your WF8000U adapter.

User Interface Table

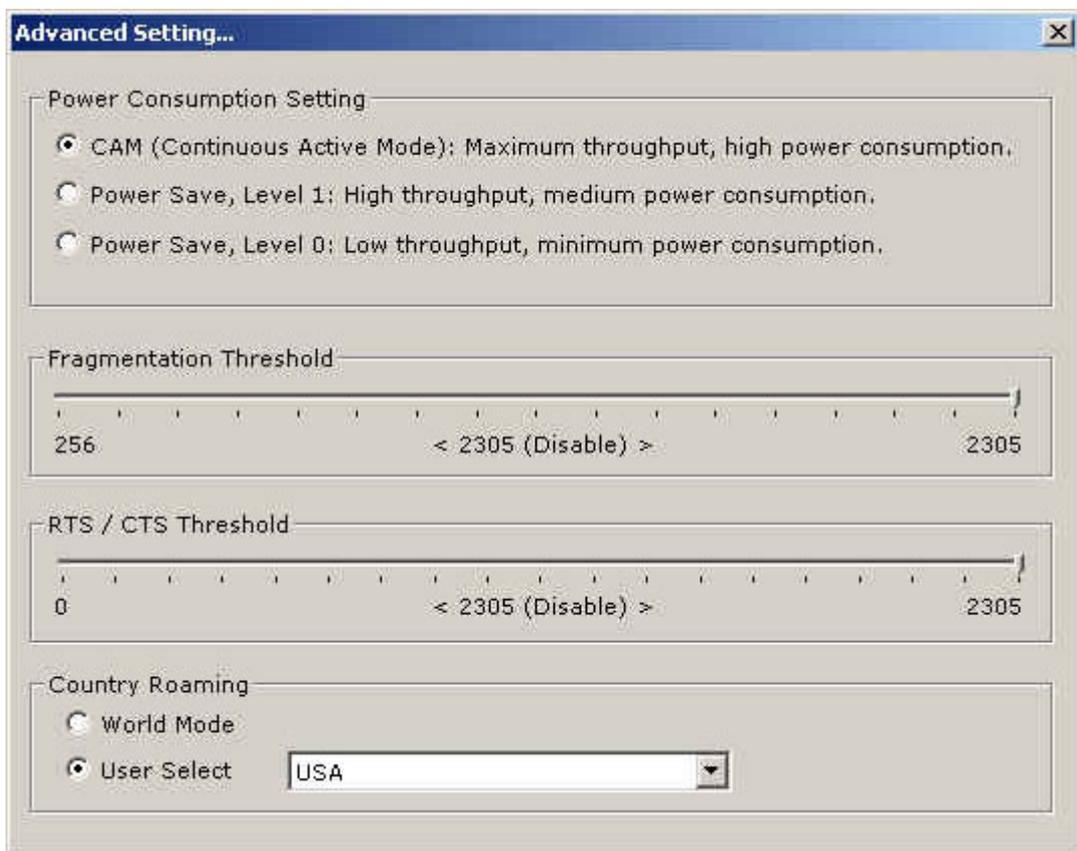
Language

The utility provides the user an easy interface to change language.

You can set this to the following language: English; Traditional Chinese; French or Japan.

Other Table

Advanced Setting



Power Saving Mode

Power Saving mode allows your computer to use reduced power during idle time by going into “sleep” mode, saving energy costs.

Fragmentation Threshold

The value defines the maximum size of packets, any packet size larger than the value will be fragmented. If you have decreased this value and experience high packet error rates, you can increase it again, but it will likely decrease overall network performance. Select a setting within a range of 256 to 2305 bytes.

Minor change is recommended.

RTS/CTS Threshold

Minimum packet size required for an RTS (Request To Send). For packets smaller than this threshold, an RTS is not sent and the packet is transmitted directly to the WLAN. Select a setting within a range of 0 to 2305 bytes. Minor change is recommended

Information

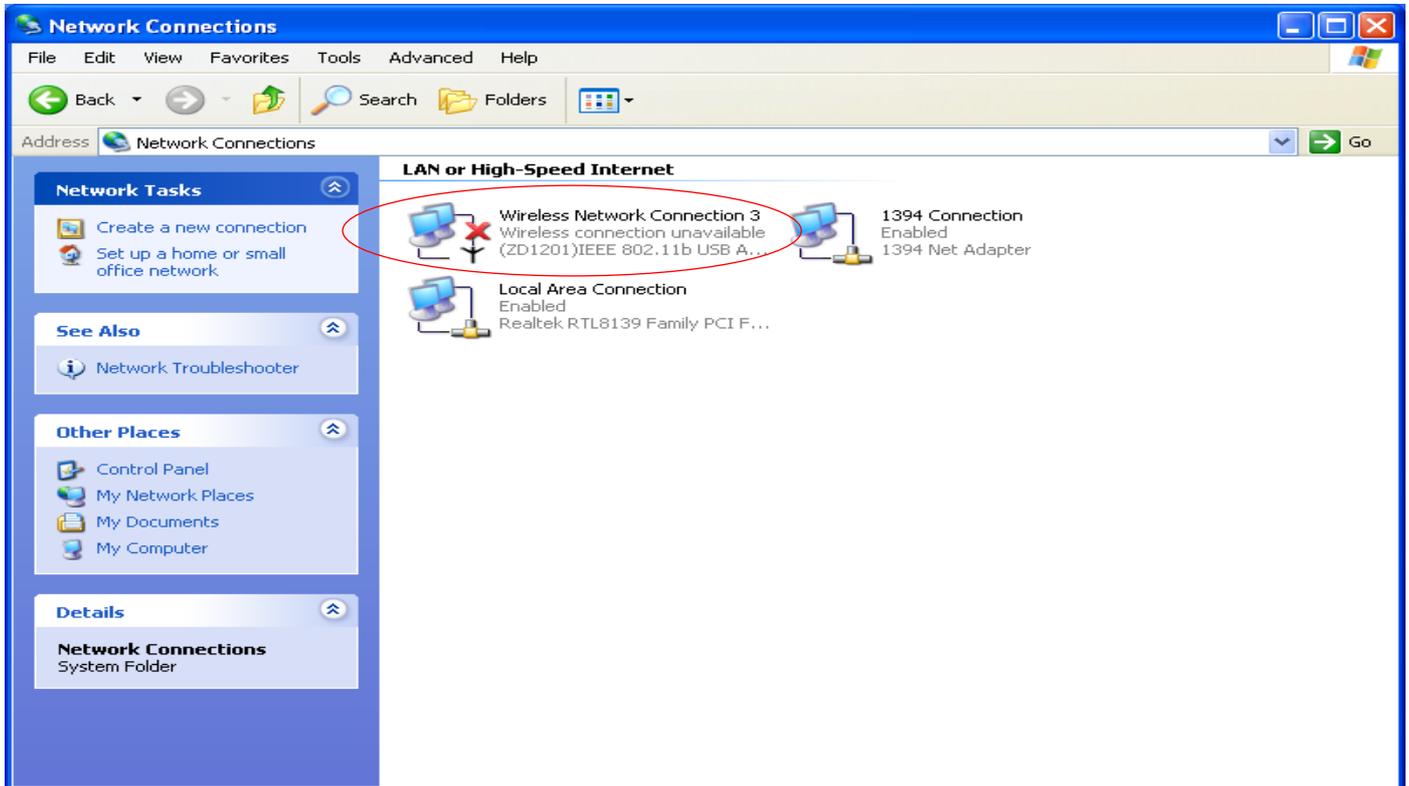
The Information Page provides information on the version of the Network Driver, the Configuration Utility, and the firmware in the USBWF8000U adapter. In addition, this page also provides the MAC address of the USBWF8000U adapter , as shown in the following illustration.



4 WIRELESS BRIDGE MODE FOR WINDOWS XP ONLY

Setup the **WIRELESS BRIDGE** Using the Windows XP's Utility

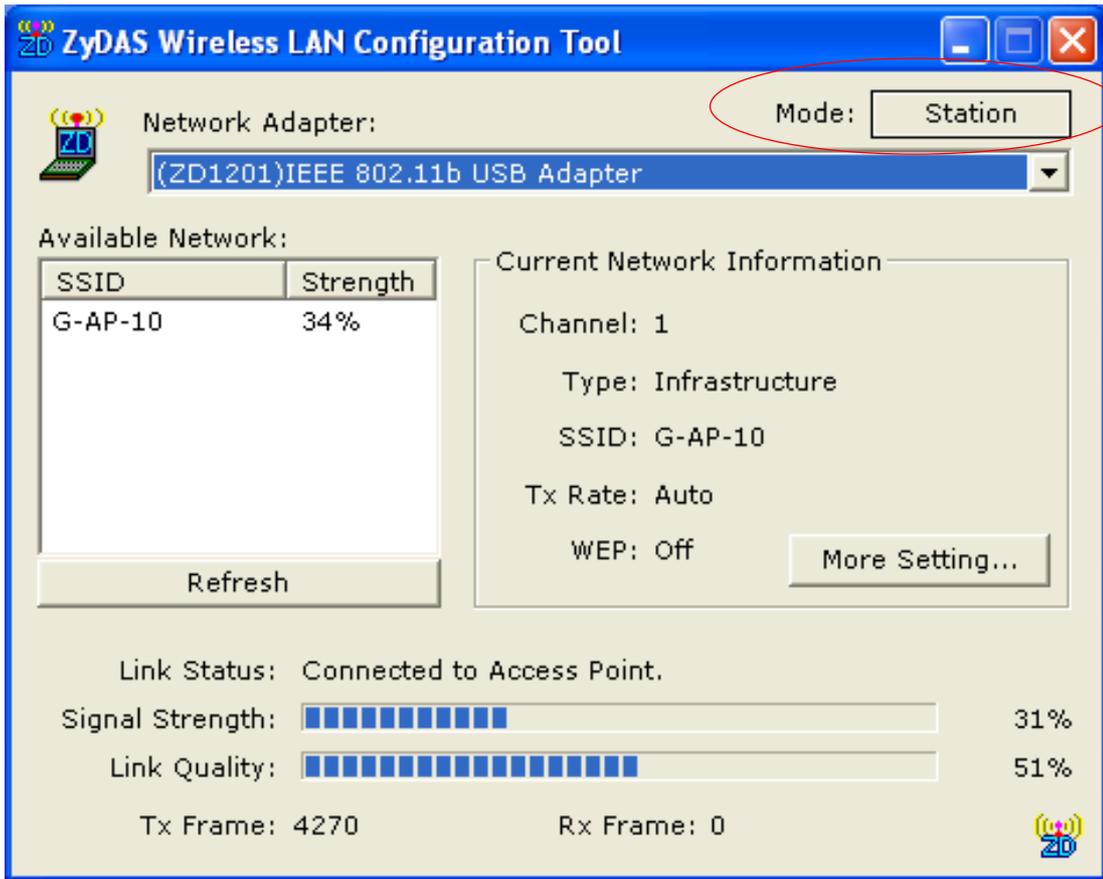
1. Click "Start->Connect To->Show all connections".



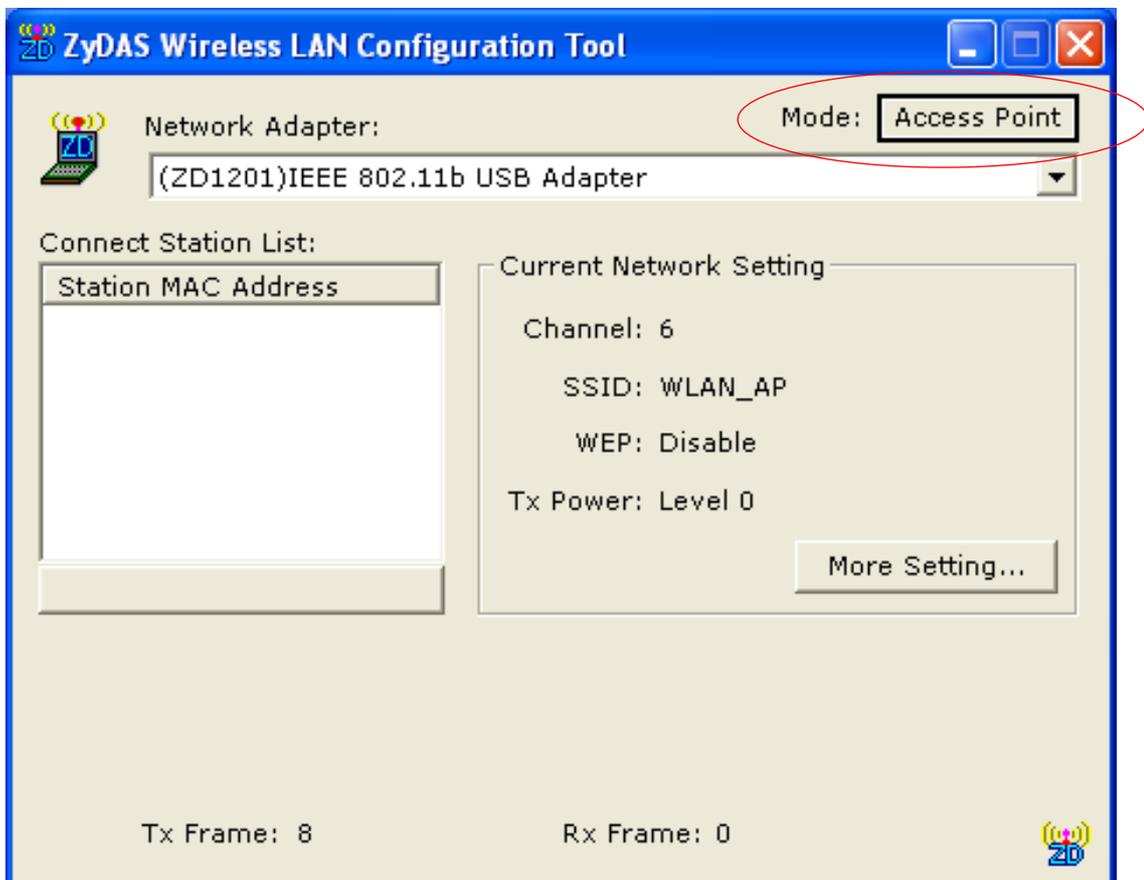
3. Please click "Start->All programs->TwinMOS USB WLAN Adapter ->TMConfig". The TM icon will appear.



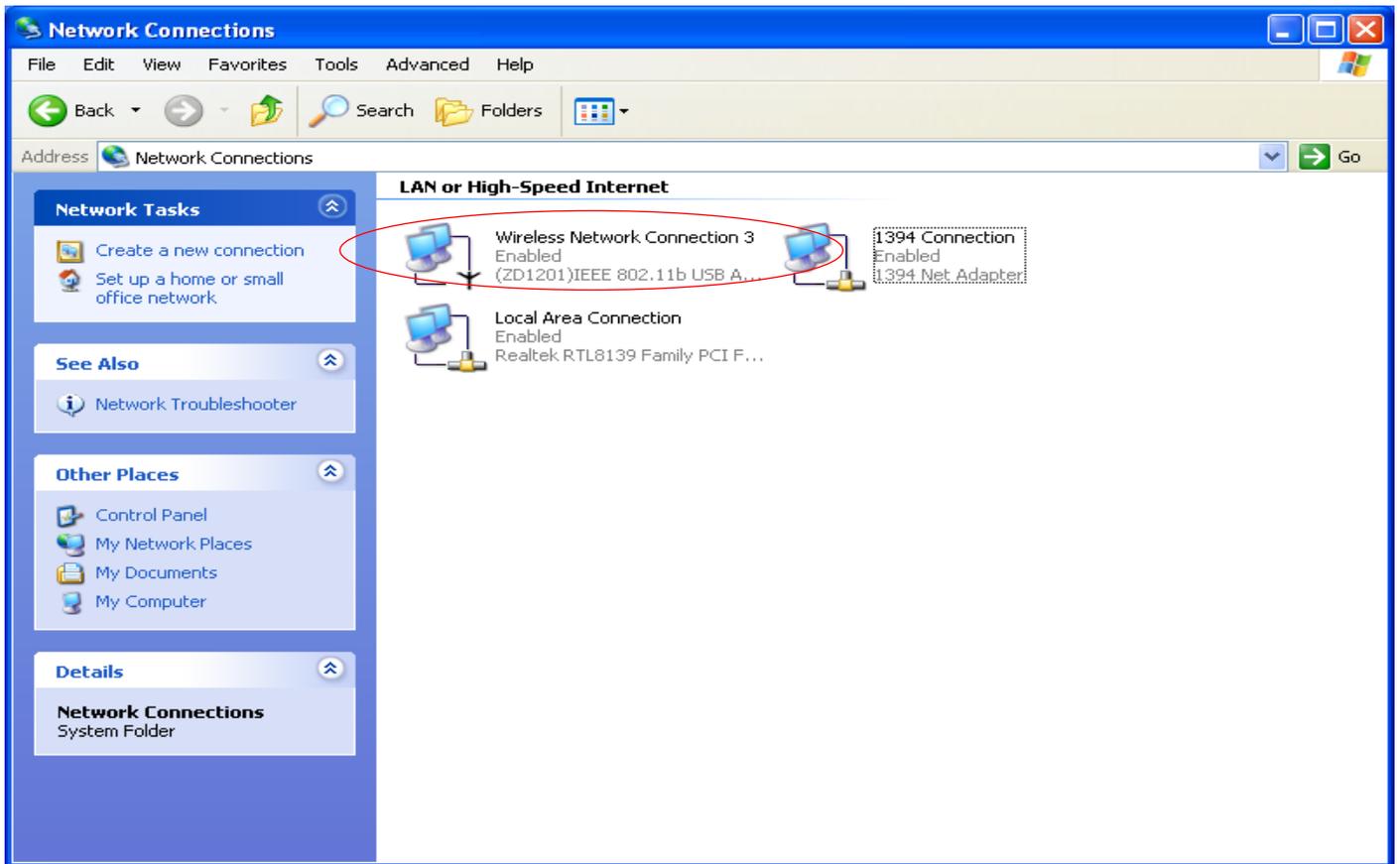
Click "Station" Button.



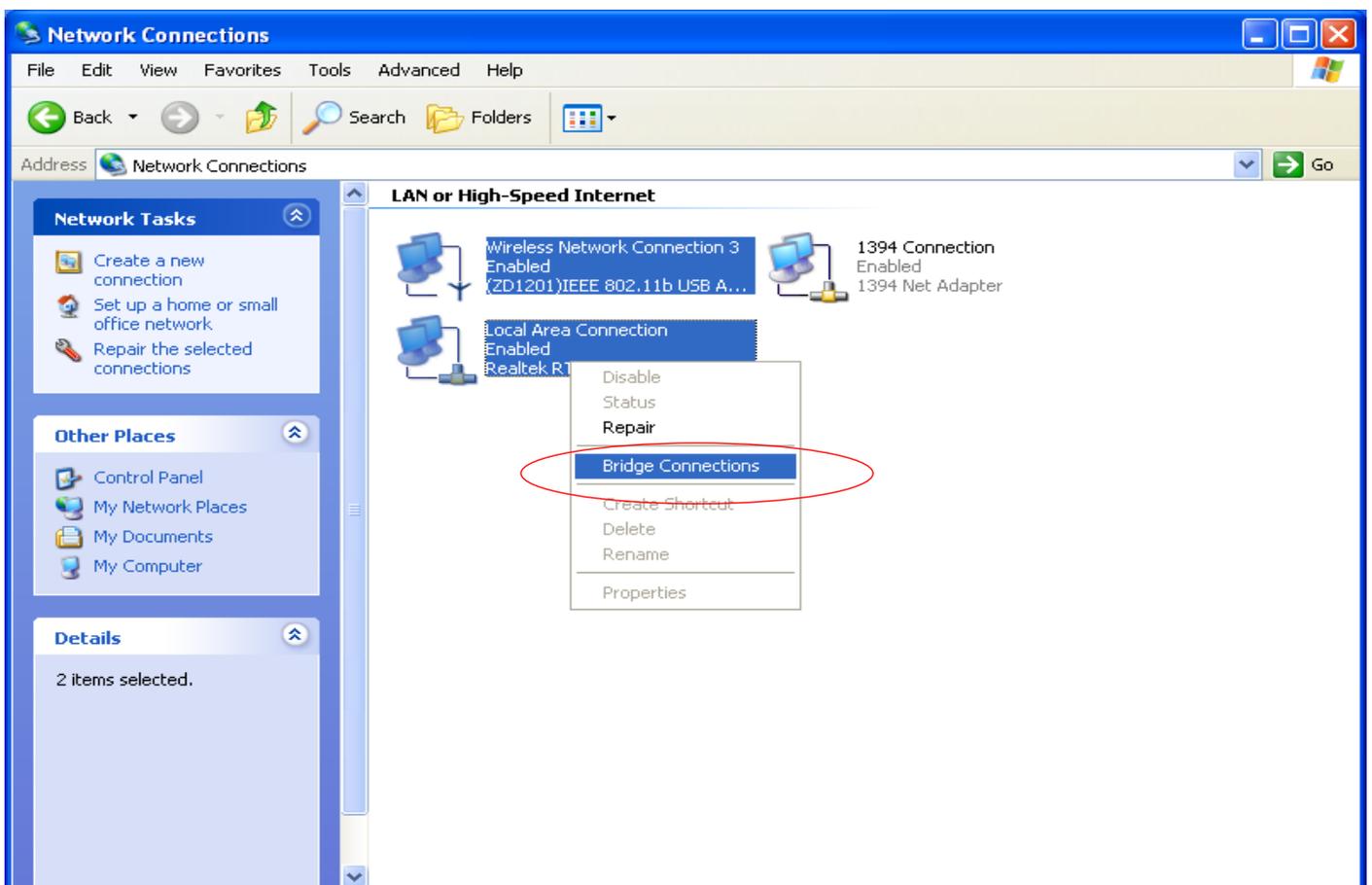
3.The adapter change to Access Point mode:

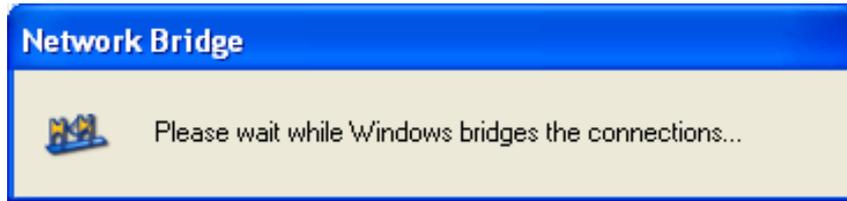


4.The Status of "Wireless Network Connection " will be "Enabled":

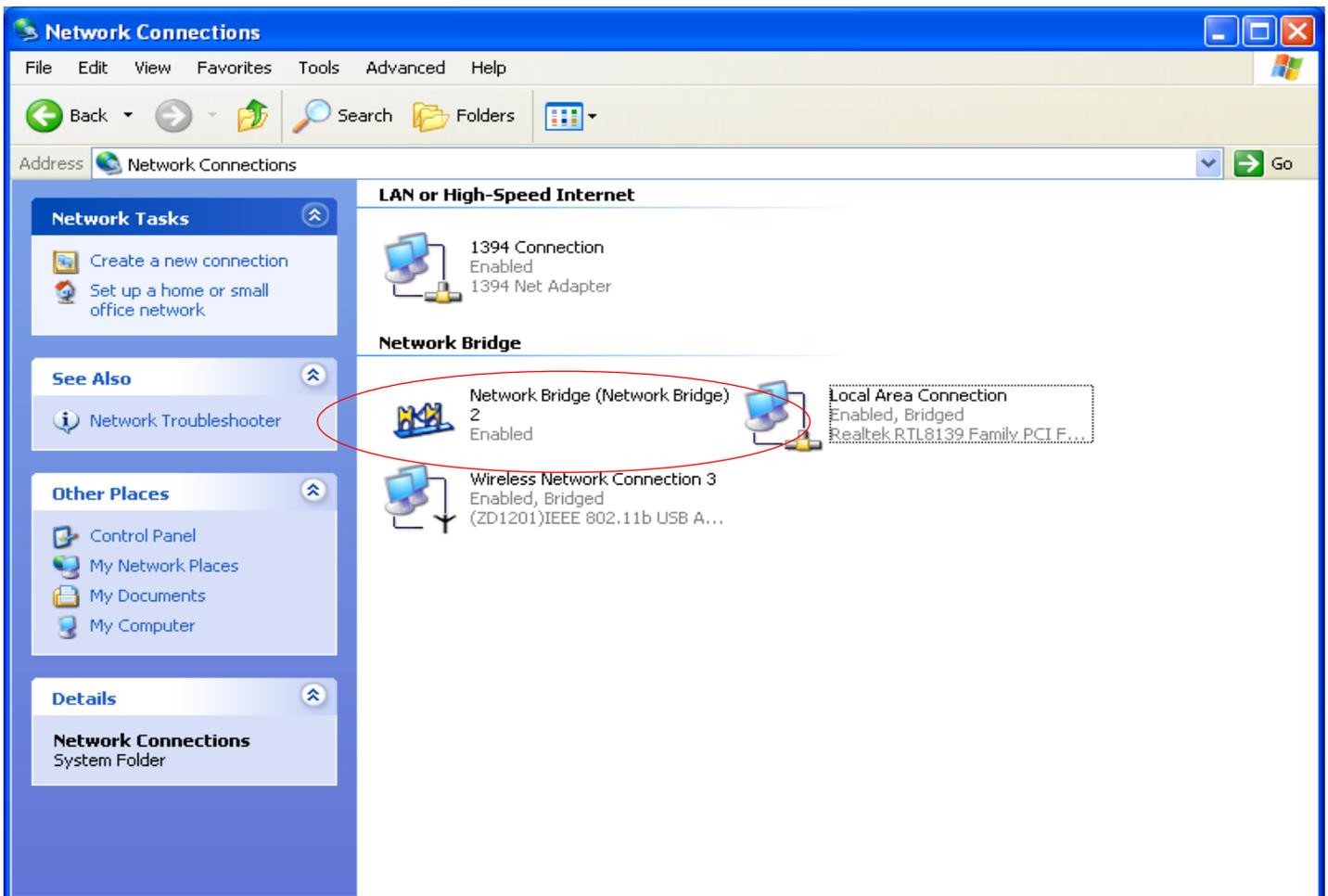


5.Select a pair Network icon and click the right bottom of mouse. Then select "Bridge Connections" to create a network bridge

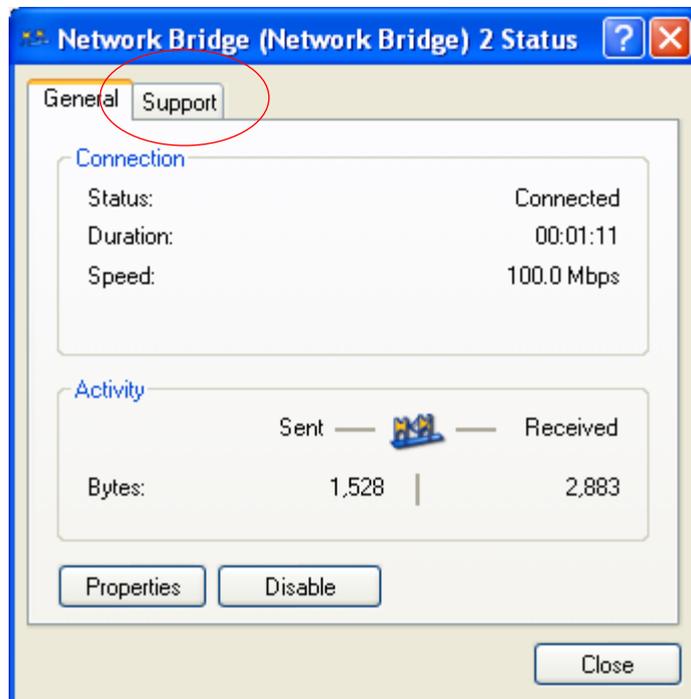
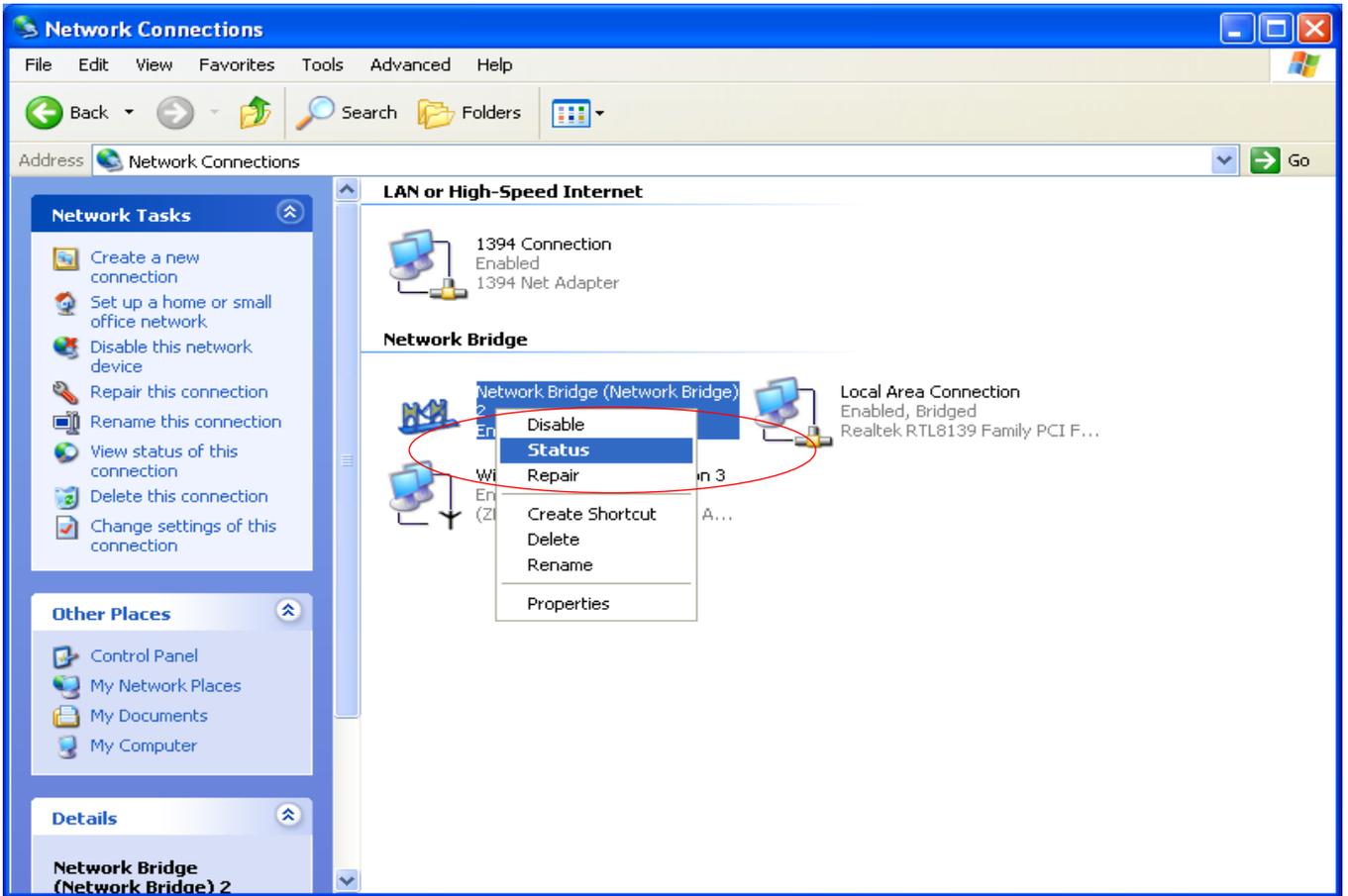




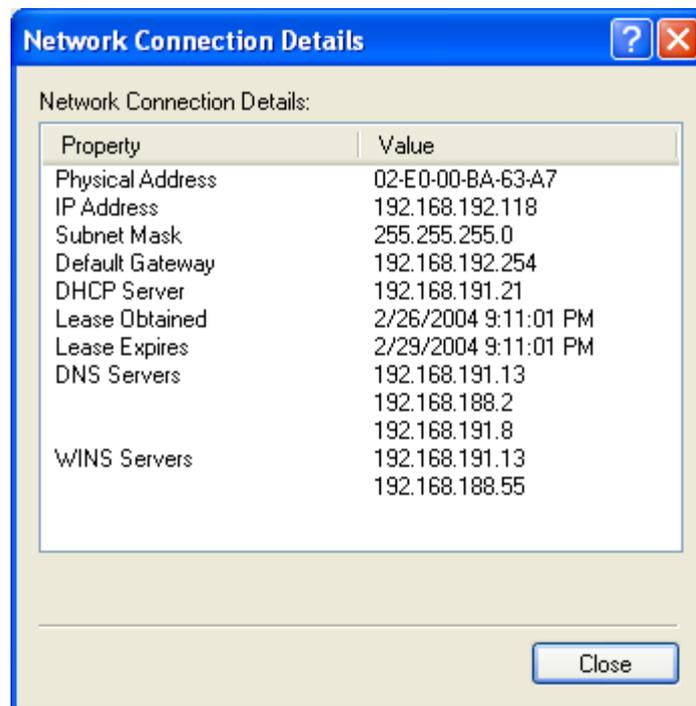
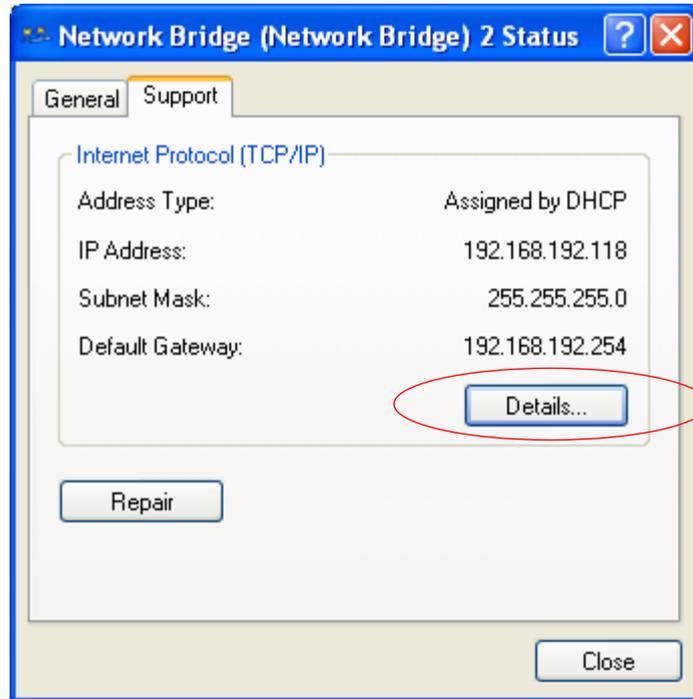
6. The Network Bridge created in Network Connections panel.



7. Click right bottom of mouse and select "Status" to check the network bridge mode.

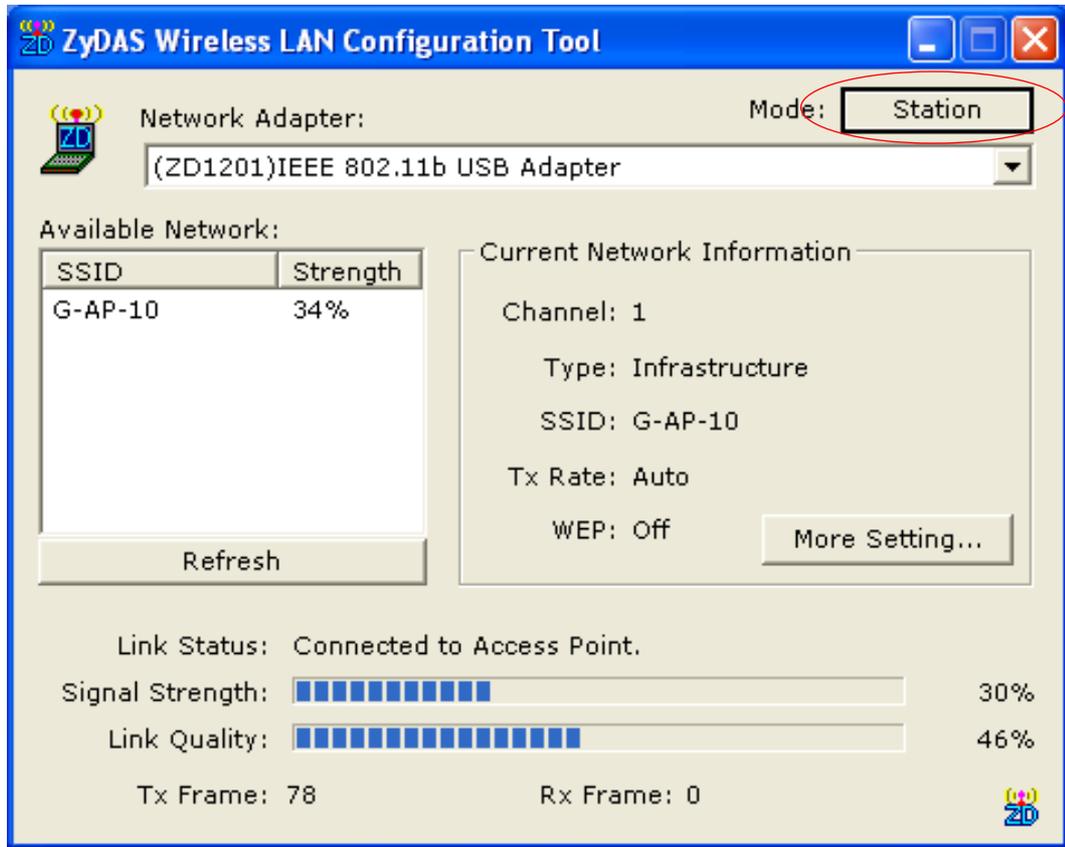


8. For detail please get access to "Support" tab.

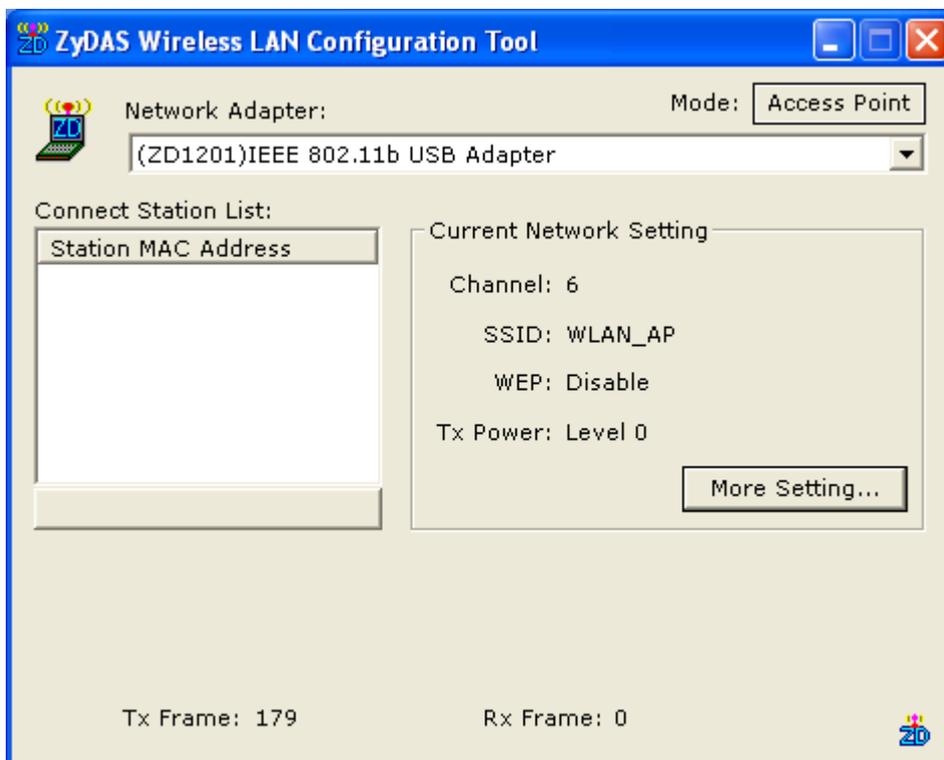


Configuration Utility of WF8000U AP

WF8000U uses the Configuration Utility as the software AP. The utility provides the user an easy interface to change any settings related to the WF8000U AP. Clicking on the "Station" will start the Configuration Utility.



This page as below will appear.



Connect Station List

This screen shows all Adapters nearby.

General Connection Setting Table

Select the More Setting Page to access the Configuration menu, as shown below.

You can make changes to any of the fields shown below, without the need to restart your computer.

The screenshot shows a window titled "Access Point Setting" with a close button in the top right. The "General Connection Setting" section is expanded and contains the following controls:

- Channel:** A dropdown menu currently set to "6".
- Basic Rate:** Four radio buttons for "1M", "2M", "5.5M", and "11M". The "1M" and "2M" options are selected.
- SSID:** A text input field containing "WLAN_AP".
- Hide SSID:** An unchecked checkbox.
- Tx Power:** A dropdown menu set to "Level 0 (Maximum Power)". A "Change" button is located to its right.

Below the "General Connection Setting" section, there are several other settings:

- WEP:** A dropdown menu set to "Disable" with a "Setting" button to its right.
- Fragment:** A slider control set to "Disable".
- RTS/CTS:** A slider control set to "Disable".
- MAC Address Filter:** A "Setting" button.

An "OK" button is located at the bottom right of the dialog box.

Click "Change" button to enable "General Connection Setting" page to Change the current settings.

Tx Power

The WF8000U AP can operate in one of four Level, which are specified in the Level field of the Configuration menu. Clicking the down arrow at the right of the Level field displays the available level.

Channel

When communicating in Ad-Hoc mode, you must specify a channel on which communications will take place. This field is grayed in infrastructure mode because the Access Point automatically selects the channel.

Basic Rate

The Basic Rate field specifies the rate at which the radio in your WF8000U AP transmits and receives data. You can set this to the following fixed rates: 1 Mbps; 2Mbps; 5.5 Mbps or 11 Mbps.

SSID

The name of the wireless network. This name cannot be longer than 32 characters. You may specify a SSID for the WF8000U AP and then only the device with the same SSID can interconnect to the AP.

Hide SSID

“Hide SSID” check box allows you to hide SSID of Soft AP.

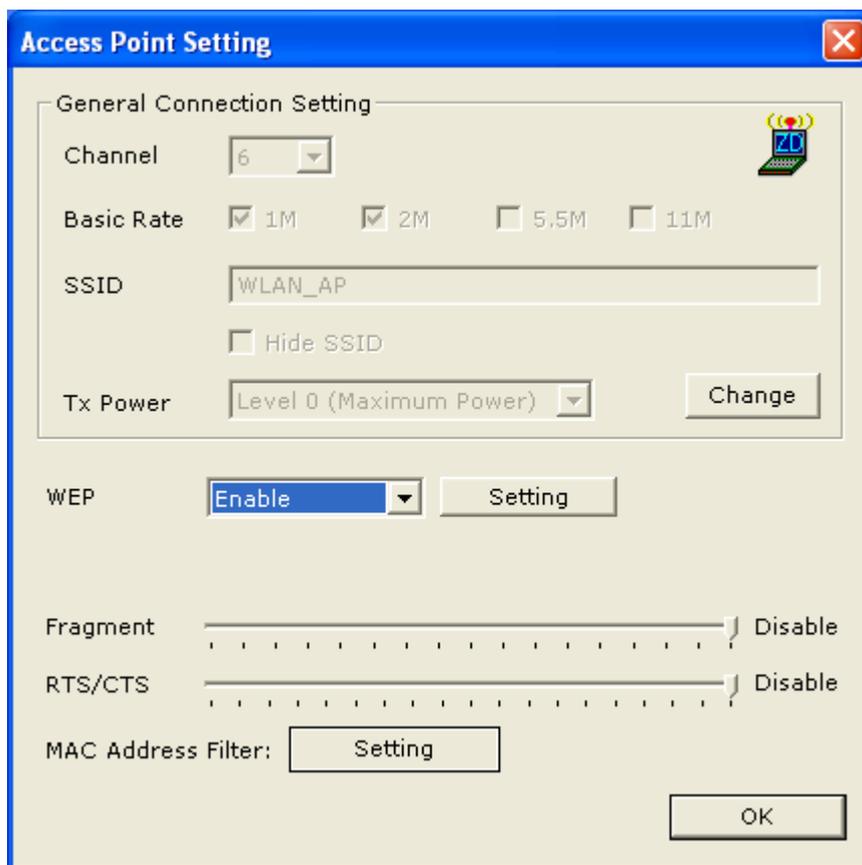
Apply

Click “Apply” button to save and implement the new settings.

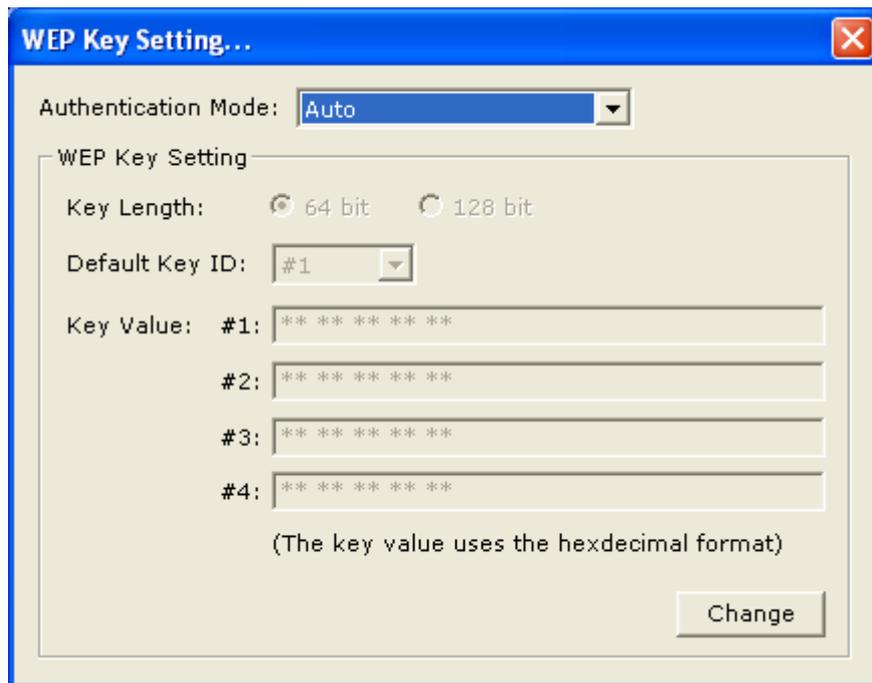
Encryption Setting Table

“WEP Key Setting” page allows you to enhance the security of a network. Every station in a secured network should enable the Encryption function and the values of the Network Key should be the same.

Select "Enable" from WEP and Clicking on the "Setting".



This page as below will appear.



Authentication Mode

This setting has to be consistent with the wireless devices, which the adapter intends to connect.

- Open System** – No authentication is needed among the wireless devices.
- Shared Key** – Only wireless devices using a shared key (WEP Key identified) are allowed to connecting each other. Setup the same key as the wireless devices, which the adapter intends to connect.
- Auto** – Auto switch the authentication algorithm depending on the wireless devices, which the adapter is connecting to.

Key Length

You may select the 64-bit or 128-bit to encrypt transmitted data. Larger key length will provide higher level of security, but the throughput will be lower.

Default Key ID

Select one of the keys (1~4) as the encryption key.

Key Value

The keys are used to encrypt data transmitted in the wireless network. Fill the text box by following the rules below.

- 64-bit** – Input 10 digit Hex values (in the “A-F”, “a-f” and “0-9”range) as the encryption keys. For example: “0123456aef”.
- 128-bit** – Input 26 digit Hex values (in the “A-F”, “a-f” and “0-9” range) as the encryption keys. For example:“01234567890123456789abcdef”.

Fragmentation Threshold

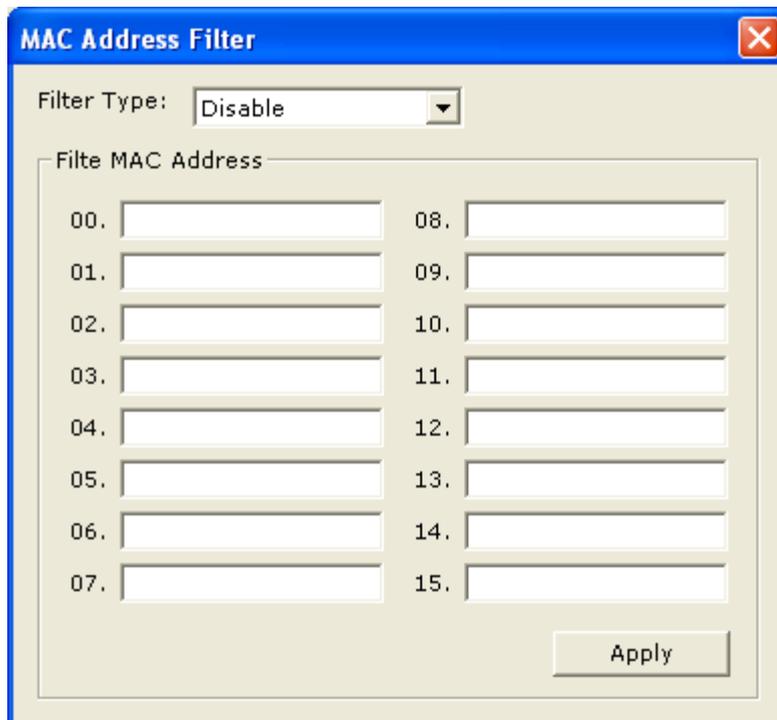
The value defines the maximum size of packets, any packet size larger than the value will be fragmented. If you have decreased this value and experience high packet error rates, you can increase it again, but it will likely decrease overall network performance. Select a setting within a range of 256 to 2305 bytes.

Minor change is recommended.

RTS/CTS Threshold

Minimum packet size required for an RTS (Request To Send). For packets smaller than this threshold, an RTS is not sent and the packet is transmitted directly to the WLAN. Select a setting within a range of 0 to 2305 bytes. Minor change is recommended

MAC address Filter Table



The screenshot shows a window titled "MAC Address Filter" with a close button in the top right corner. Inside the window, there is a "Filter Type:" dropdown menu set to "Disable". Below this is a section labeled "Filter MAC Address" containing 16 input fields, numbered 00 through 15, arranged in two columns of eight. At the bottom right of the window is an "Apply" button.

If you select "Accept" from Filter Type, only those clients whose wireless MAC addresses are in the "Filter MAC Address" list will be able to connect to Access Point. When this option is Disable, wireless clients will be able to connect if the list contains entries. When this option is Reject, no wireless clients whose wireless MAC addresses are in the "Filter MAC Address" list will be able to connect .

5 TROUBLE SHOOTING

For help on general and miscellaneous problems you may be experiencing with your printing, refer to the following pages for possible solutions. Look up your problem and try the solution.

In Windows 2000:

To check that the WF8000U is installed properly, please do the following:

1. **Check the Windows 2000 Diagnostics. See if there is any conflict in the Resource allocation or the I/O Address, IRQ allocations. If you find that the IRQ or I/O Addresses are already assigned to some other devices, you must change that value.**
2. **Go to the Control Panel. Double click on the Network Adapter, you will see WF8000U Wireless Adapter. Double clicking on that will show you the status of the WF8000U network adapter. If there are no error signs, the adapter has been installed properly.**

In Windows XP:

To check that the WF8000U is installed properly, please do the following:

1. **Go to START>CONTROL PANEL. Double-click on Network Connections. Right-click on LAN. Click Properties.**
2. The WF8000U network adapter will appear, indicating proper installation.

SYMPTOM	PROBLEM	Solution
Can not establish link (General)	<ol style="list-style-type: none"> 1. The two IR devices are not aligned properly. 2. Distance is too near or far. 3. Device is inactivated 4. BIOS setting incorrect 5. Installation is not correct. 	<ol style="list-style-type: none"> 1. Properly align them again 2. Move one device to a proper distance. 3. Enable the device by IR monitor. 4. Correct the BIOS Setting. 5. Refer to un-installation guide to remove the device, then install again.
File Transfer between IR-equipped PDA and ACT-IR device-attached host computer stops before finishing up and an error message appears.	The infrared communication is interfered. For example, something blocks out the infrared beam or the burst of string light source, etc.	Check to find out the source of interference and eliminate it before trying again.
The device work well before. But after I unplug it then plug, it does not work again.	Improper unplug and plug procedure	Before you unplug it, you should disable the device. And enable the device after you plug it into your computer

6 SPECIFICATION

- **Product Name:** ACT-WF8000U WiFi/FIR-USB Adapter
- **Compatibility:** Fully compliant to USB specification 1.1 and IrDA specification 1.1
- **Communication speed and Distance:**
 - IrDA-1.0 (9.6, 19.2, 38.4, 57.6, 115.2Kbps): 3-100cm;
 - IrDA-1.1 (4Mbps): 3--100cm;
- **Connection:** Standard USB connector with 4-ft USB cable
- **Power Source:**
 - Obtain power from USB port. No external power supply required.
- **Power Consumption:**
 - Active current < 400 mA), standby current: < 0.5 mA
- **Dimension:**
 - mm(L) X mm(W) X9mm(H), "(L) X"(W) X "(H)
- **Weight:**
 - oz (gr)
- **Operating Temperature:** 0° C TO 60° C
 - **Storage Temperature** -20° C TO 85° C

WLAN SPEC.

Standard & Compatibility	<ul style="list-style-type: none"> ● USB 1.1 ● IEEE 802.11b Standard for WLAN (DSSS) ● Internal Wi-Fi certified by TwinMOS
Host OS	<ul style="list-style-type: none"> ● Windows 98SE/ME/2000/XP ● Linux
Media Access Protocol	CSMA/CA with ACK
Network Protocol	<ul style="list-style-type: none"> ● TCP/IP ● IPX ● NetBEUI
Network Type	<ul style="list-style-type: none"> ● Infrastructure ● Ad-Hoc ● Pseudo IBSS ● Soft AP
Network Setting	<ul style="list-style-type: none"> ● Auto available network search ● Auto Transmission Rate switch ● Dynamic Distance Check between Station and Infrastructure ● Dynamic Signal Strength Check ● Dynamic Power Level Check

RF Characteristics

Frequency Range	2.400-2.4835 GHz, Direct Sequence Spread Spectrum (DSSS)
Operating Channels	<ul style="list-style-type: none"> ● 1-11 United States (FCC) ● 1-11 Canada (DOC) ● 1-14 Japan (MKG) ● 1-13 Europe (Except Spain and France) (ETSI)
Modulation Technique	<ul style="list-style-type: none"> ● 11 Mbps: CCK ● 5.5 Mbps: CCK ● 2 Mbps: DQPSK ● 1 Mbps: DBPSK
Spreading	11-chip Barker Sequence
Transmit Power	15 dBm @ Nominal Temp Range
Receive Sensitivity	Nominal Temp Range: 11 Mbps 10^{-5} BER @ -80 dBm, minimum
Security	64/128-bit WEP Encryption
Operating Range	<p>Open Space: 100 ~ 400m; Indoor: 30m ~ 100m</p> <p>The transmission speed varies in the surrounding environment.</p>
EMC Certification	FCC part 15B, 15C; R&TTE

7 PRECAUTIONS

To ensure trouble-free operation, please observe the following precautions:

Optical communications are easily affected by external light sources, weak batteries, transfer distance, transfer angle, etc. Any of these conditions may cause a data transfer failure, incomplete, missing or incorrect data. Make sure that the wireless interface is away from direct sunlight and other strong light source.

- Do not terminate arbitrarily during file transfer process between DUT and computers until finished. Otherwise DUT internal data integrity may be damaged, which is due to the violation of DUT's.
- Do not expose the unit to moisture, as this will damage the internal circuitry.
- Do not expose the unit to extreme temperatures. It should not be placed in direct sunlight or in a closed vehicle, neither should it be placed near heaters nor other heat sources.
- Do not store the unit in a humid or dusty place.
- Use a soft, dry cloth to clean the unit. Do not use a wet cloth or any solvent.
- Do not drop the unit or handle the unit carelessly.

CAUTION:

- Never touch the pins of computer connection terminal. The internal circuits can be damaged by a static Electricity discharge. If this device requires any servicing, use only an ACTISYS service dealer, an ACTISYS approved service facility, or an ACTISYS repair service.
- When exchanging data with host computer, be sure the appropriate serial communication port is available and is not in conflict with other peripheral device or software.

8 WARRANTY INFORMATION

THE FOLLOWING WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

ACTiSYS Corporation warrants to the first consumer purchaser, for a period of one year from the date of purchase, that this wireless interface ("the Product") will be free from defective workmanship and materials, and agrees that it will, at its option, either repair the defect or replace the defective Product or part thereof at no charge to the purchaser for parts or for labor.

This warranty does not apply to any appearance items of the Product, any consumable items such as paper, ink ribbon, or batteries supplied with the Product, or to any equipment or any hardware, software, firmware, or peripheral other than the Product. This warranty does not apply to any Product the exterior of which has been damaged or defected, which has been subjected to misuse, abnormal service or handling, or which has been altered or modified in design, construction or interfacing. **Tampering With Label Voids Warranty.**

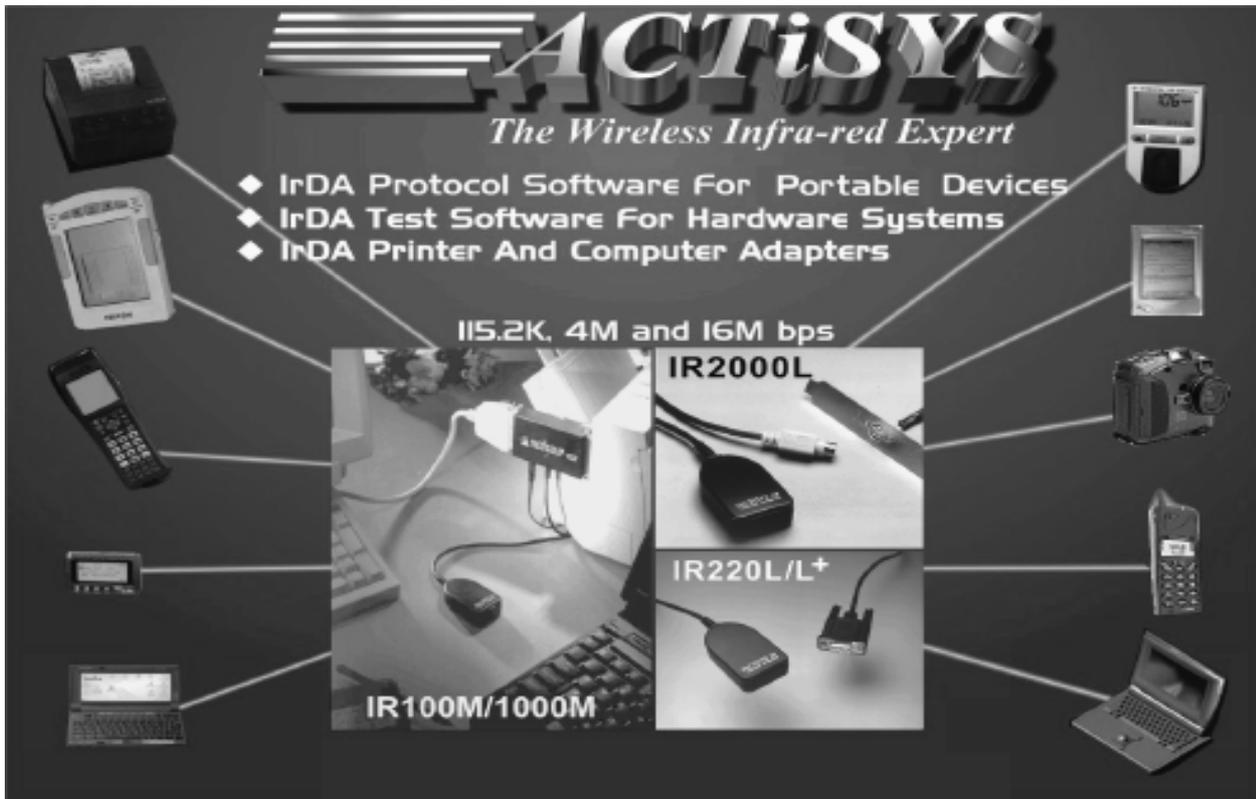
In order to enforce the rights under this limited warranty, the purchaser should mail, ship, or carry the Product, together with proof of purchase, to ACTiSYS.

The limited warranty described above is in addition to whatever implied warranties may be granted to purchasers by law. To the extent permitted by applicable law, ALL IMPLIED WARRANTIES INCLUDING THE WARRANTIES OF MERCHANT ABILITY AND FITNESS FOR USE ARE LIMITED TO A PERIOD OF ONE YEAR FROM THE DATE OF PURCHASE. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Neither the sales personnel of the seller nor any other person is authorized to make any warranties other than those described above, or to extend the duration of any warranties beyond the time period described above on behalf of ACTiSYS Corporation.

The warranties described above shall be the sole and exclusive remedy available to the purchaser. Correction of defects, in the manner and for the period of time described above, shall constitute full satisfaction of all claims, whether based on contract, negligence, strict liability or otherwise. In no event shall ACTiSYS Corporation be liable, or in any way responsible, for any damages or defects in the Product which were caused by repairs or attempted repairs performed by anyone other than ACTiSYS technician. Nor shall ACTiSYS Corporation be liable or in any way responsible for any incidental or consequential economic or property damage. Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply for you.

9 CONTACT INFORMATION



ACTiSYS
The Wireless Infra-red Expert

- ◆ IrDA Protocol Software For Portable Devices
- ◆ IrDA Test Software For Hardware Systems
- ◆ IrDA Printer And Computer Adapters

115.2K, 4M and 16M bps

IR2000L

IR220L/L+

IR100M/1000M

The advertisement features a central collage of images including a printer, a handheld device, a mobile phone, a laptop, and various IrDA adapters (IR100M/1000M, IR2000L, IR220L/L+). Lines radiate from the central text and images to smaller images of these devices and adapters arranged around the perimeter.

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