WUS-B12
2.4 GHz Wireless USB Adapter

Manual

Rev. 042003

D-Link
Building Networks for People

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Package Contents

Contents of Package:

- WUS-B12 2.4 GHz Wireless USB Adapter
- Manual, Quick Installation Guide, and Drivers on CD

If any of the above items are missing, please contact your reseller.

System Requirements:

- A laptop computer with an available USB port
- Windows XP, Windows 2000, Windows ME, or Windows 98 SE
- At least 32 MB of memory and a 300 MHz processor or higher
- An 802.11b Access Point (e.g., WAP-B11 for **Infrastructure Mode**) or another 802.11b wireless adapter (e.g., WCB-B13 for **Ad-Hoc mode**.)

Introduction

The WUS-B12 Wireless USB Adapter is an advanced IEEE 802.11b compatible, high performance, wireless adapter that supports data transfer speeds of up to 11 Mbps.

It is an ideal way to connect your laptop computer to a Wireless Local Area Network (WLAN.) After completing the steps outlined in the Quick Installation Guide you will have the ability to share information and resources, such as files and printers, and take full advantage of a “connected” environment for work or play! Please look at our **Getting Started** section in this manual. You will see several options for setting up a network using the WUS-B12.

The WUS-B12 comes with software drivers for the most popular Microsoft Windows operating systems and can be integrated into a larger network running Windows XP, Windows 2000, Windows ME, and Windows 98SE, in either Ad Hoc mode (without an Access Point) or Infrastructure mode (with an Access Point.)

This manual provides a quick introduction to wireless technology and its application as it relates to networking. Take a moment to read through this manual and get acquainted with wireless technology.

Product Features

- Compatible with IEEE 802.11b high rate standard to provide wireless Ethernet speeds of 11Mbps data rate
- Dynamic data rate scaling at 11, 5.5, 2 and 1Mbps
- Maximum reliability, throughput and connectivity with automatic data rate switching
- Supports wireless data encryption with 64 and 128-bit WEP standard for security
- Printed PCB antenna
- Drivers support Windows 98, 2000 and Millennium
- Simple user setup & diagnostics utilities
- Compliant with FCC Part 15.247 for US, EN 300 328 for Europe, and RCR STD-33A and ARIB STD-T66 for Japan

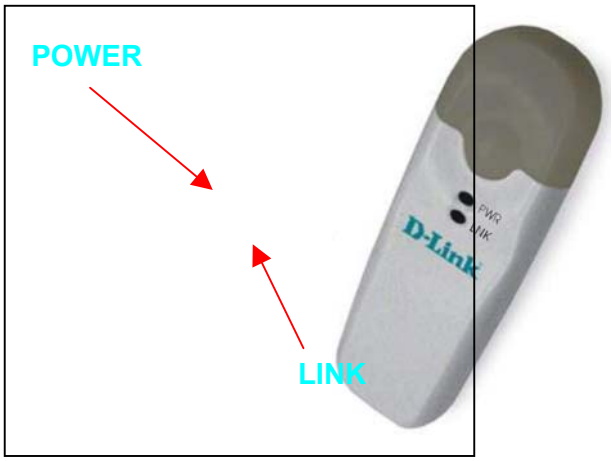
LEDS

LED stands for **L**ight-**E**mitting **D**iode. The **WUS-B12 Wireless USB Adapter** has two **LEDs**: **Link** and **Activity**.

LEDs

POWER – The LED lights steady to indicate when power on

LINK –The LED lights steady to indicate a proper connection to the network.



Wireless Basics

Wireless products are based on industry standards to provide easy-to-use and compatible high-speed wireless connectivity within your home or business. Strictly adhering to IEEE 802.11b, our wireless family of products will allow you to access the data you want, when and where you want it. No longer will you be limited to one location or forced to run new wiring through your home or office. You will be able to enjoy the freedom that wireless networking delivers.

A wireless local area network (WLAN) is a cellular computer network that transmits and receives data with radio signals instead of wires. Wireless LANs are used increasingly in both home and office environments. Innovative ways to utilize WLAN technology are helping people to work and communicate more efficiently. Increased mobility and the absence of cabling and other fixed infrastructure has proven to be beneficial for many users.

Wireless users can use the same network applications they use on an Ethernet LAN. Wireless adapter cards used on laptop and desktop systems, support the same protocols as Ethernet adapter cards. For most users, there is no noticeable functional difference between a wired Ethernet desktop computer and a wireless computer equipped with a wireless adapter other than the added benefit of the ability to roam within the wireless-cell. Under many circumstances, it may be desirable for mobile network devices to link to a conventional Ethernet LAN in order to use servers, printers or an Internet connection supplied through the wired LAN. A Wireless Access Point (AP) is a device used to provide this link.

People use wireless LAN technology for many different purposes.

Mobility - Productivity increases when people have access to data in any location within the operating range of the WLAN. Ad-hoc management decisions based on real-time information can significantly improve worker efficiency.

Low Implementation Costs - WLANs are easy to set up, manage, change and relocate. Networks that frequently change, both physically and logically, can benefit from WLANs' ease of implementation. WLANs can operate in locations where installation of wiring may be impractical. Furthermore, IEEE standardization mandates interoperability of all WLAN devices that conform to the 802.11b set of standards.

Installation Speed and Simplicity - Installing a wireless LAN system can be fast and easy and can eliminate the need to pull cable through walls and ceilings.

Wireless Basics *(continued)*

Installation Flexibility - Wireless technology allows the network to go where wires cannot go.

Reduced Cost-of-Ownership - While the initial investment required for wireless LAN hardware might be higher than the cost of wired LAN hardware, overall installation expenses and life-cycle costs will be significantly lower. Long-term cost benefits are greatest in dynamic environments requiring frequent moves, adds, and changes.

Scalability - Wireless LAN systems can be configured in a variety of topologies to meet the needs of specific applications and installations. Configurations are easily changed and range from peer-to-peer networks suitable for a small number of users to full infrastructure networks of thousands of users that allow roaming over a broad area.

Standards-based Technology
Based on the IEEE 802.11b standard, the WUS-B12 is also interoperable with existing compatible 2.4 GHz wireless technologies, with data transfer speeds of up to 11 Mbps.

Installation Considerations
The WUS-B12 lets you access your network with your laptop computer from virtually anywhere you want. Keep in mind, however, that the number and thickness of walls, ceilings or other objects that the wireless signals must pass thru may limit range. Typical ranges vary depending on the types of materials and background RF noise in your home or business. The key to maximizing range is to follow these basic principles:

Wireless Basics *(continued)*

1. Keep the number of walls and ceilings between the Access Point and your receiving device to a minimum – each wall or ceiling can reduce your wireless product's range from 3-90 feet (1-30 meters.) For some businesses or for a large residential home deployment, it may be beneficial to have more than one access point with overlapping coverage.

2. Be aware of the direct line between Access Points and computers with wireless adapters - A wall that is 1.5 feet thick (.5 meters), at a 45-degree angle appears to be almost 3 feet (1 meter) thick. At a 2-degree angle it looks over 42 feet (14 meters) thick! Try to make sure that the Access Points and Adapters are positioned so that the signal will travel straight through a wall or ceiling for better reception.

3. Building Materials make a difference - A solid metal door or aluminum studs may have a negative effect on range. Try to position Access Points, and computers with wireless adapters so that the signal passes through drywall or open doorways and not other materials.

4. Make sure that the antenna is positioned for best reception by using the software signal strength tools included with your product.

5. Keep your product away (at least 3-6 feet or 1-2 meters) from electrical devices or appliances that generate extreme RF noise.

For the average residence, range should not be a problem. If you experience low or no signal strength in areas of your home that you wish to access, consider positioning the Access Point in a location directly between the computers with wireless adapters that will be connected. Additional Access Points can be connected to provide better coverage in rooms where the signal does not appear as strongly as desired.

Using radio frequency (RF) technology, WLANs (Wireless Local Area Networks) transmit and receive data over the air, minimizing the need for wired connections. Thus, WLANs combine data connectivity with user mobility, and, through simplified configuration, enable movable LANs.

Getting Started

To begin, select the type of wireless network you will be building.
We will discuss the following types of networks in this section:

1. ***A Home Internet Network with A Residential Gateway/Router***
2. ***A Home Internet Network with Multiple IP Addresses***
3. ***An Ad Hoc Network***
4. ***An Ad Hoc Network with Internet Sharing***

Please select, from the four types of networks described above, the type of network that is appropriate for your needs. Please follow the instructions in the corresponding section that follows.

1. A Home Internet Network with A Residential Gateway/Router

(Network administrators with Dynamic IPs can also follow these instructions.)
If you have two or more computers (laptops or desktops) and want to share files, printers, and Internet access using a DHCP-capable Residential Gateway/Router – or - if you want to connect to an Ethernet network that uses Dynamic (DHCP) IP addresses, then follow the instructions on the next page. When it is complete, your network may look similar to this:

DHCP stands for Dynamic Host Configuration Protocol. It is a protocol for assigning dynamic IP addresses "automatically." With a DHCP-capable gateway, there is no need to manually assign an IP address.

1. A Home Internet Network with A Residential Gateway/Router *(continued)*

(Requirements: A Residential Gateway/Router connected with an Ethernet (CAT5) cable to an 802.11b Access Point such as the WAP-B11

000AP.

This type of installation requires that you provide a dynamic IP address for each computer on your network. You will need a DHCP-capable Residential Gateway/Router for your network.

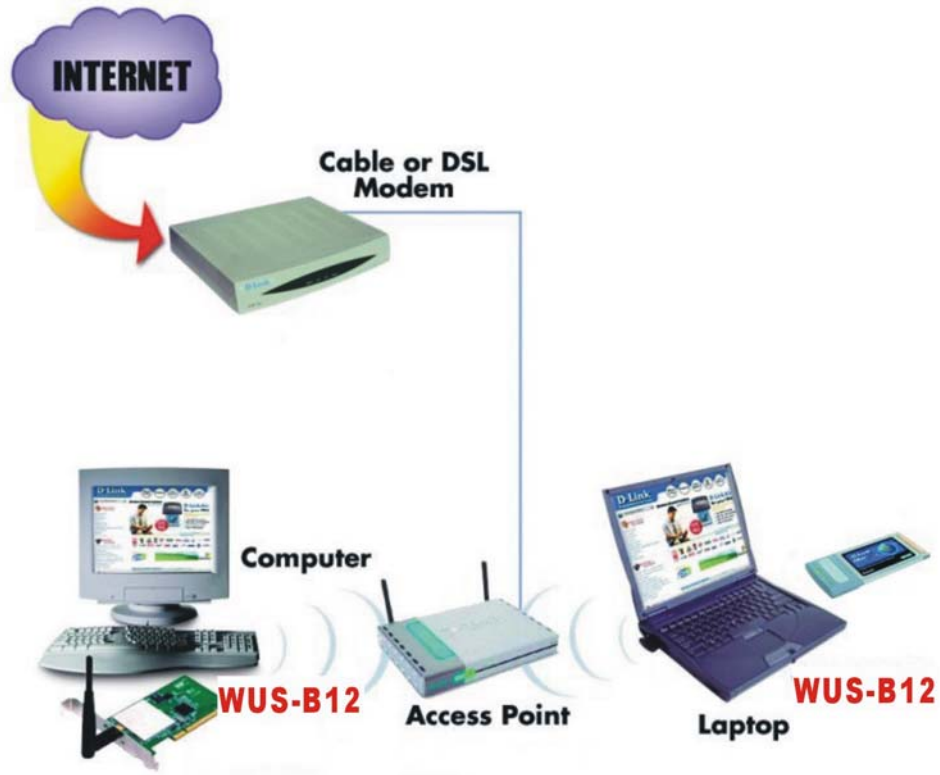
To complete the installation, please follow these steps:

1. Connect the **Router/Gateway** to a Broadband connection, (e.g., a **Cable** modem or a **DSL** modem.)
2. Connect the 802.11b Access Point (**WAP-B11**) to the router.
3. Install the **WUS-B12 Wireless USB Adapter** into a laptop computer on your wireless network.
4. Check the **Device Manager** to confirm that the wireless adapter is installed correctly. Please refer to the **Networking Basics** section in this manual entitled: **Checking the Installation of the Drivers for the Wireless Adapter.**
5. *By default, the wireless adapter is set to obtain a Dynamic IP Address.* If you are having difficulty connecting, check to make sure that the **IP Address** of the **wireless adapter** is within the IP address range of your network. Please refer to the **Networking Basics** section in this manual entitled: **Checking The IP Address**.
6. Learn to share printers and files. Please refer to the **Networking Basics** section in this manual entitled: **Adding and Sharing Printers in Windows XP**.

2. A Home Internet Network with Multiple IP Addresses

(Network administrators with Static IPs can also follow these instructions.)
If you have two or more computers (laptops or desktops) and want to share files, printers, and Internet access using multiple IP addresses that you have purchased from your Internet Service Provider **-or-** you want to connect to an Ethernet network that uses Static IP Addresses, then follow the instructions on the next page. When you have completed your network, it should look similar to this:

2. A Home Internet Network with Multiple IP Addresses (continued)



Please note that this type of installation requires that your ISP (Internet Service Provider) provides you a static IP address for each computer and the Access Point on your network. Please refer to the manual that came with your Access Point to determine its configuration.

Please follow these steps to complete the installation:

1. Connect the **Wireless Access Point** to a Broadband connection (i.e., a **Cable** modem.)
2. Install the **WUS-B12 Wireless USB Adapter** into the laptop computer(s) on your wireless network.
3. Check the **Device Manager** to confirm that the **wireless adapter** is installed correctly. Please refer to the **Networking Basics** section in this manual entitled: **Checking the Installation of the Drivers for the Wireless Adapter**.

2. A Home Internet Network with Multiple IP Addresses (continued)

4. Set the **Static IP Address** of the **wireless adapters**. Please refer to the **Networking Basics** section in this manual entitled: **Assigning an IP Address**.

Note: The IP Address for all computers must be in the same IP Address range, and the Subnet Mask must be the same for all the computers on the network. For example: If the first computer is assigned an IP Address of 192.168.0.2 with a Subnet Mask of 255.255.255.0, then the second computer can be assigned an IP Address of 192.168.0.3 with a Subnet Mask of 255.255.255.0, etc.

*If you are using a **PPPoE client** (**Point to Point Protocol over Ethernet**) please contact your **ISP** (**Internet Service Provider**) for further instructions regarding connecting to the Internet.*

5. Learn to share printers and files. Please refer to the **Networking Basics** section in this manual entitled: **Adding and Sharing Printers in Windows XP**.

3. An Ad Hoc Network

If you have two or more computers (desktops or laptops) and want to share files and printers, but no Internet connection, please complete the following instructions. When your Ad Hoc network is complete it may look similar to this:

3. An Ad Hoc Network (continued)

To complete this installation, please follow these steps:

1. Install the **WUS-B12 Wireless USB Adapter** into your desktop computers.
2. Set the **Static IP Address** of the **wireless adapters**. Please refer to the **Networking Basics** section in this manual entitled: **Assigning an IP Address**.

Note: The IP Address for all computers must be in the same IP Address range, and the Subnet Mask must be the same for all computers on your network. For example: If the first computer is assigned an IP Address of 192.168.0.2 with a Subnet Mask of 255.255.255.0, then the second computer can be assigned an IP Address of 192.168.0.3 with a Subnet Mask of 255.255.255.0, etc.

3. Check the **Device Manager** to confirm that the **wireless adapter** is installed correctly. Please refer to the **Networking Basics** section in this manual entitled: **Checking the Installation of the Drivers for the Wireless Adapter**.
4. Check the **Wireless Configuration** for each **wireless adapter**. Please refer to the **Networking Basics** section in this manual entitled: **Checking the Wireless Configuration**.
5. Learn to share printers and files. Please refer to the **Networking Basics** section in this manual entitled: **Adding and Sharing Printers in Windows XP**.

4. An Ad Hoc Network with Internet Sharing

If you have two or more computers (desktops or laptops) and want to share files, printers, and Internet access using one computer or laptop as an Internet Server, then follow the instructions below. When you have completed your network, it should look similar to this:

4. An Ad Hoc Network with Internet Sharing (continued)

To share an Internet connection with Internet Sharing software you will need to purchase Internet Sharing software or use the Internet Connection Sharing (ICS) utility provided with Windows XP, Windows 2000, Windows ME or Windows 98SE.
Please follow your software documentation to properly configure the Internet sharing software after you install your wireless networking adapters. To install your wireless network adapter follow the instructions on the next page.

If the Internet Sharing Software will be installed on the same computer into which you are installing this wireless network adapter, then follow these steps:

1. Install the **WUS-B12 Wireless USB Adapter** (please refer to the **Quick Install Guide.**)
2. Check the **Device Manager** to confirm that your adapter is installed correctly. Please refer to the **Networking Basics** section in this manual entitled: **Checking the Installation of the Drivers for the Wireless Adapter**.
3. Install your **Internet Sharing Software**
4. If required by the ICS software, set the static IP Address for the **wireless adapter**. Please refer to the **Networking Basics** section in this manual entitled: **Assigning an IP Address**.

Note: The IP Address for all the computers on the network must be in the same IP Address range, and the Subnet Mask must be the same for all the computers on the network. For example: If the first computer is assigned an IP Address of 192.168.0.2 with a Subnet Mask of 255.255.255.0, then the second computer can be assigned an IP address of 192.168.0.3 with a Subnet Mask of 255.255.255.0, etc.

5. Learn to share printers and files. Please refer to the **Networking Basics** section in this manual entitled: **Adding and Sharing Printers**.

If the **Internet Sharing Software** will be installed on a computer other than the one in which you are installing the **WUS-B12 Wireless USB Adapter**, then follow these steps:

1. Install the **WUS-B12 Wireless USB Adapter** into the computer (please refer to the **Quick Install Guide.**)

2. Check the **IP Address** for the **wireless adapter**. Please make certain that all the computers on your network are in the same IP Address range. Please refer to the **Networking Basics** section in this manual entitled: **Checking your IP Address**.

*Note: By default, the **wireless adapter** is set to obtain a **Dynamic IP Address,** automatically**.***

3. Learn to share printers and files. Please refer to the **Networking Basics** section in this manual entitled: **Adding and Sharing Printers in Windows XP**.

Installation

This section shows you how to install the Utility if you are using Windows 2000, 98, ME, or NT operating systems. Follow the instructions given below on how to install the hardware (WUS-B12 USB Adapter) and then the software (driver and utility). For those using Windows XP, the installation procedure will be the same until the utility installation. Windows XP has a built in utility for wireless devices. The configuration utility does not need to be installed for users using the XP operating system.

System Requirements:

- A laptop computer with an available USB port
- At least a 300 MHz processor and 32 MB of memory
- USB Controller properly installed and working
- An 802.11b Access Point (for Infrastructure Mode) or another 802.11b wireless adapter (for Ad-Hoc mode.)

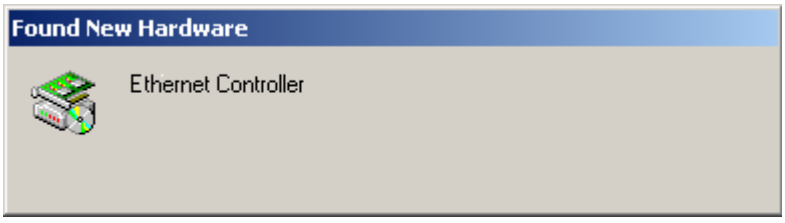
1. Installing the WUS-B12

- Turn on the computer
- Insert the WUS-B12 Wireless USB Adapter

2. Installing the Driver

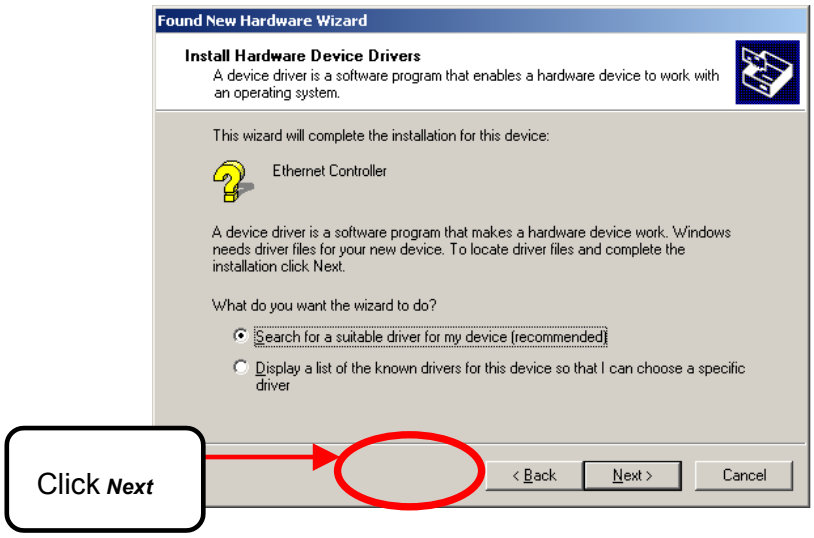
Installing the software involves two steps. The first is to install the Driver and the second is to install the Configuration Utility.

- When the WUS-B12 has been inserted into the USB port, the Found New Hardware Wizard screen appears.

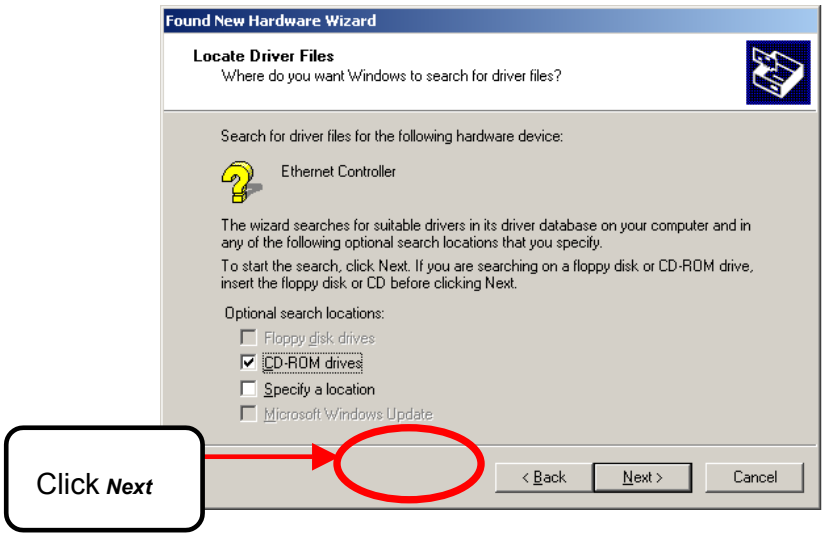


- Continue with the installation and the screen below should appear. Click on ***Next*** to proceed with the installation.

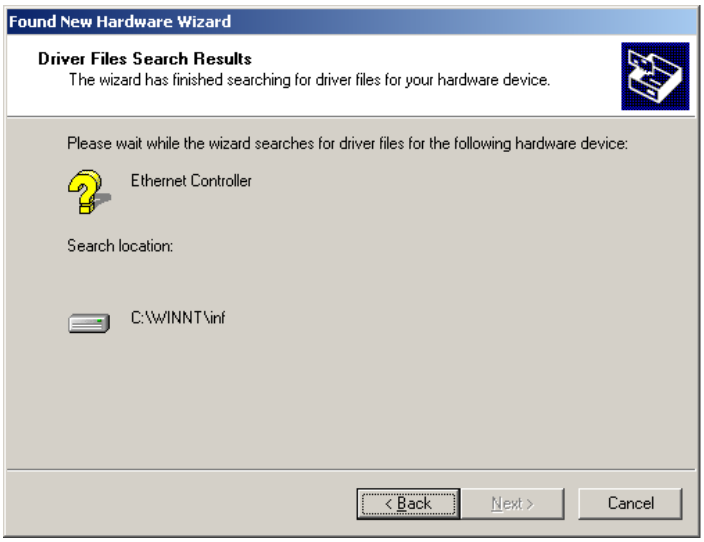
- Insert the Driver CD into the CD-ROM drive. The **Install Hardware Device Drivers** window will appear. Click ***Next***.



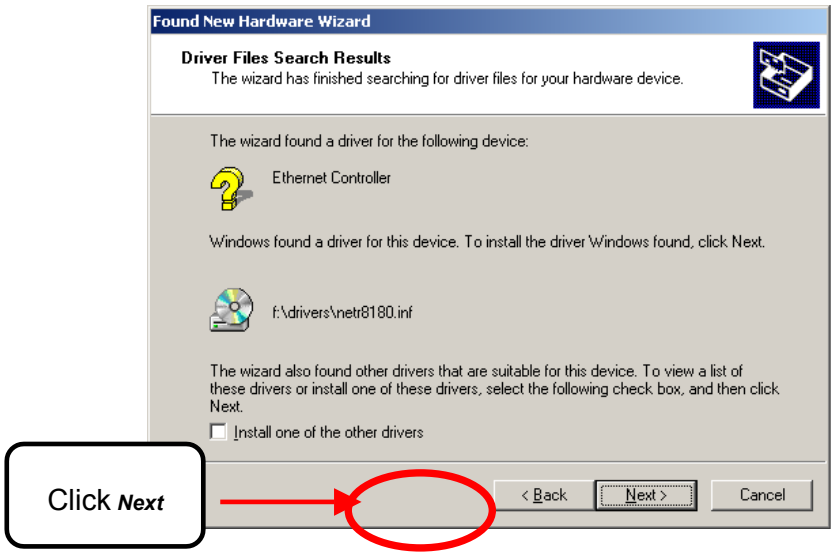
- The installation will continue with the following screen. Click ***Next***.



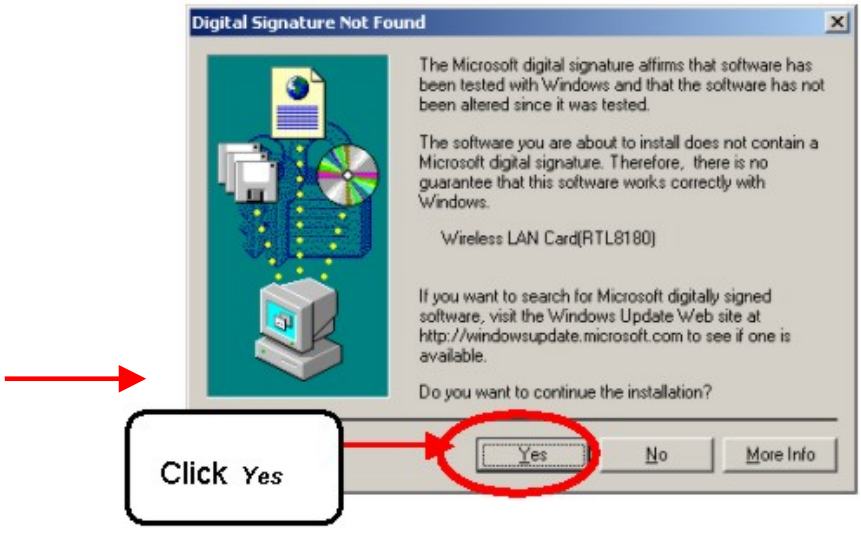
- The following screen will appear.



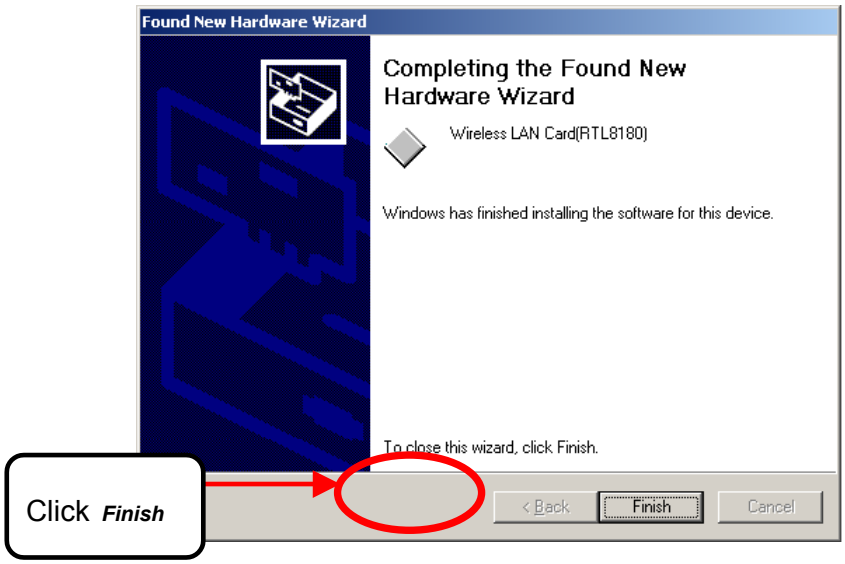
- The installation will continue with the following screen. Click ***Next***.



- The installation will continue with the following screen. Click ***Yes***.



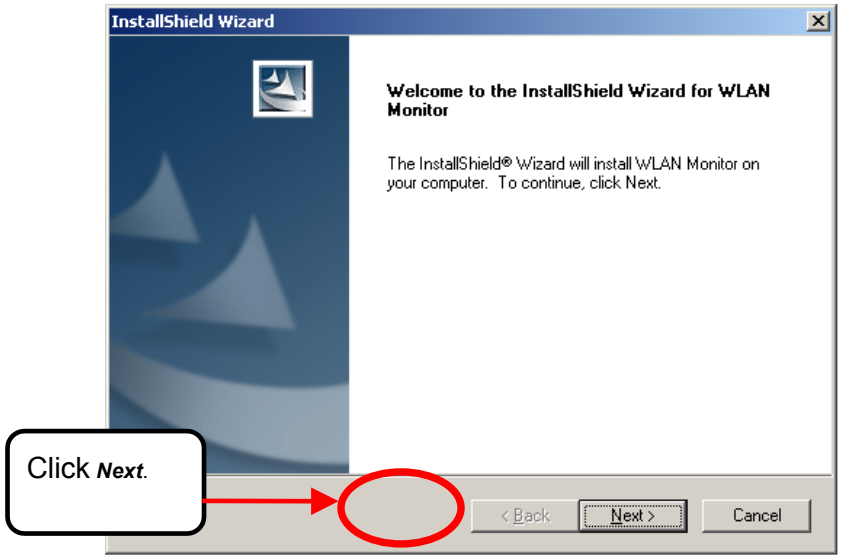
- The installation will finish with the following screen. Click ***Finish***.



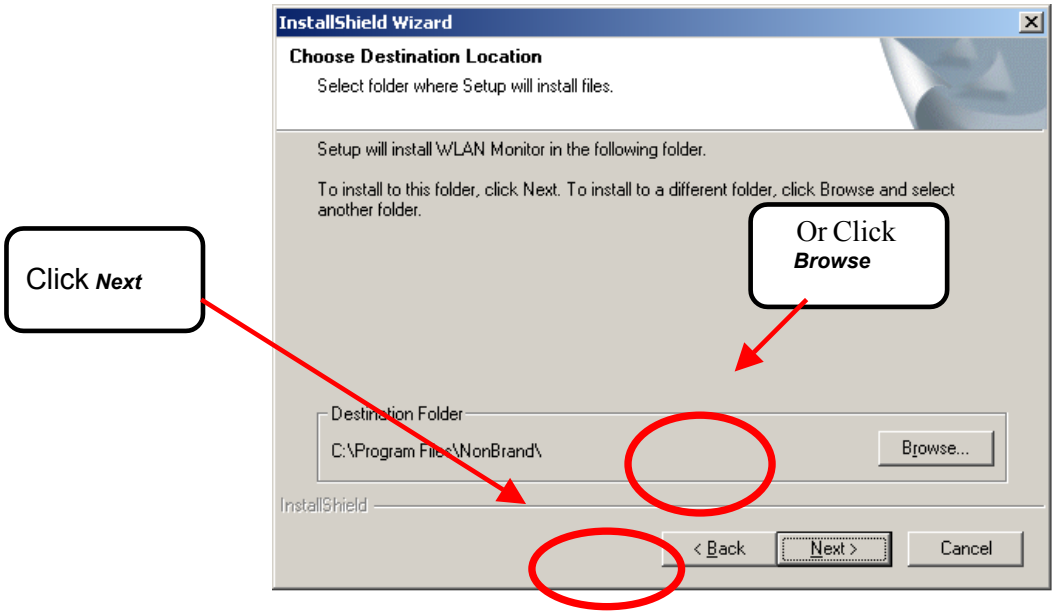
3. Installing the Configuration Utility

Look for the file named “Setup.exe” on the installation CD-Rom. Double-click on it to start the installation for the configuration utility.

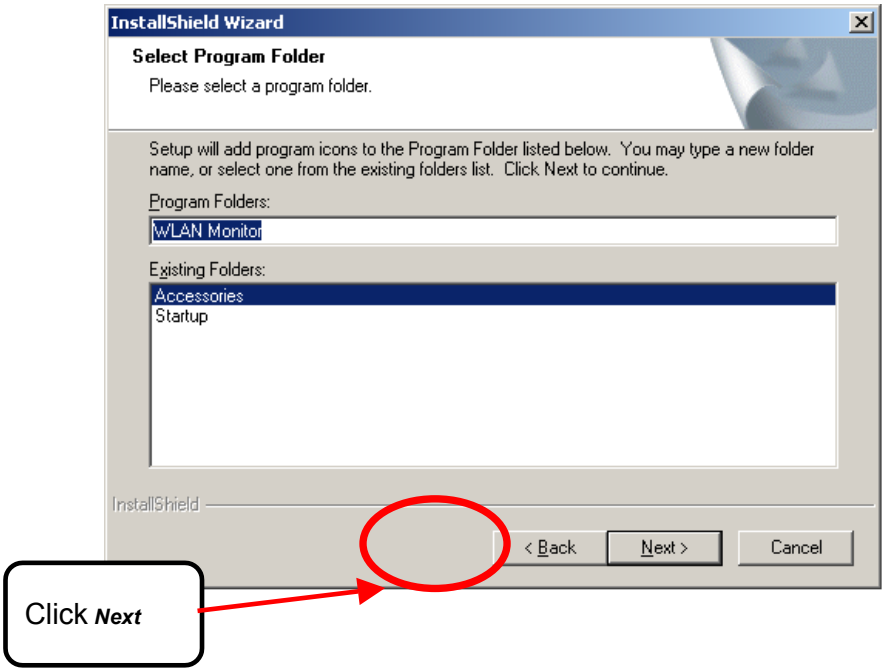
- When this screen appears click ***Next.***



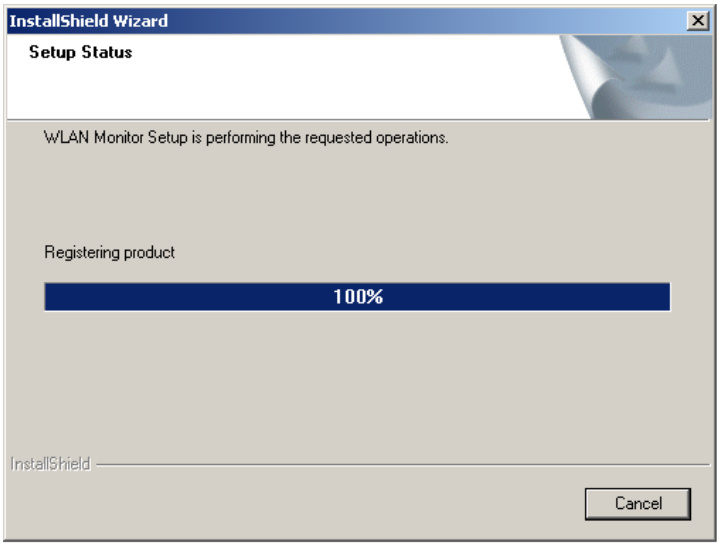
- To install to the folder C:\Program Files\NonBrand click ***Next***. Otherwise click on ***Browse*** to choose an alternate location.



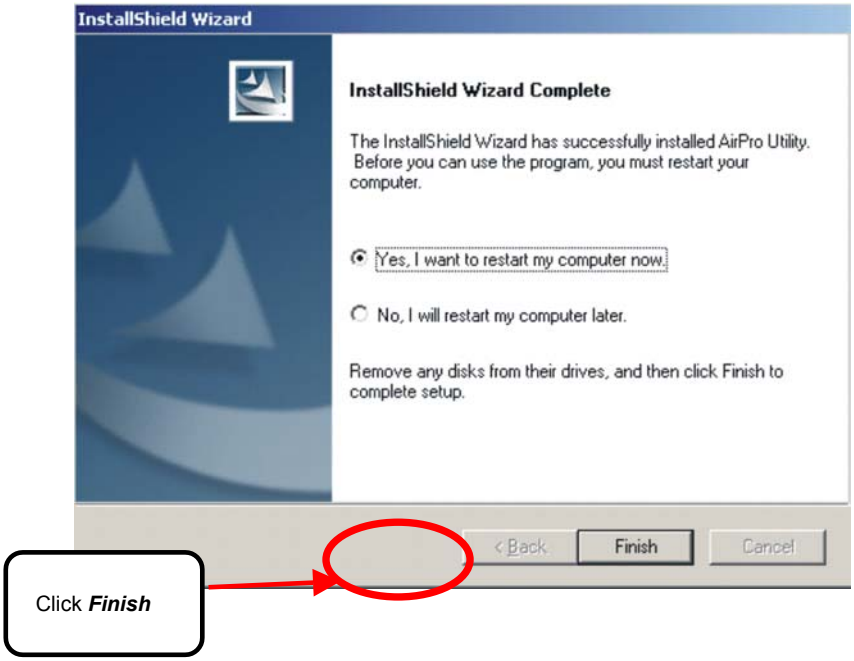
- Click ***Next*** to proceed with the utility installation.



- The Setup Status screen will appear like the one below:

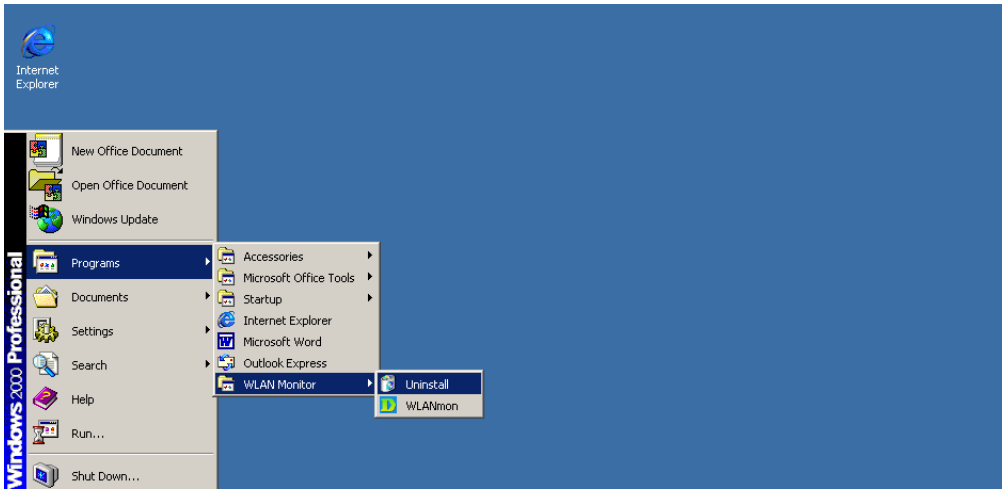


- After the Utility has been successfully installed, InstallShield Wizard will prompt you to restart your computer. Select “Yes, I want to restart my computer now,” and click on ***Finish***. This completes the Utility installation.

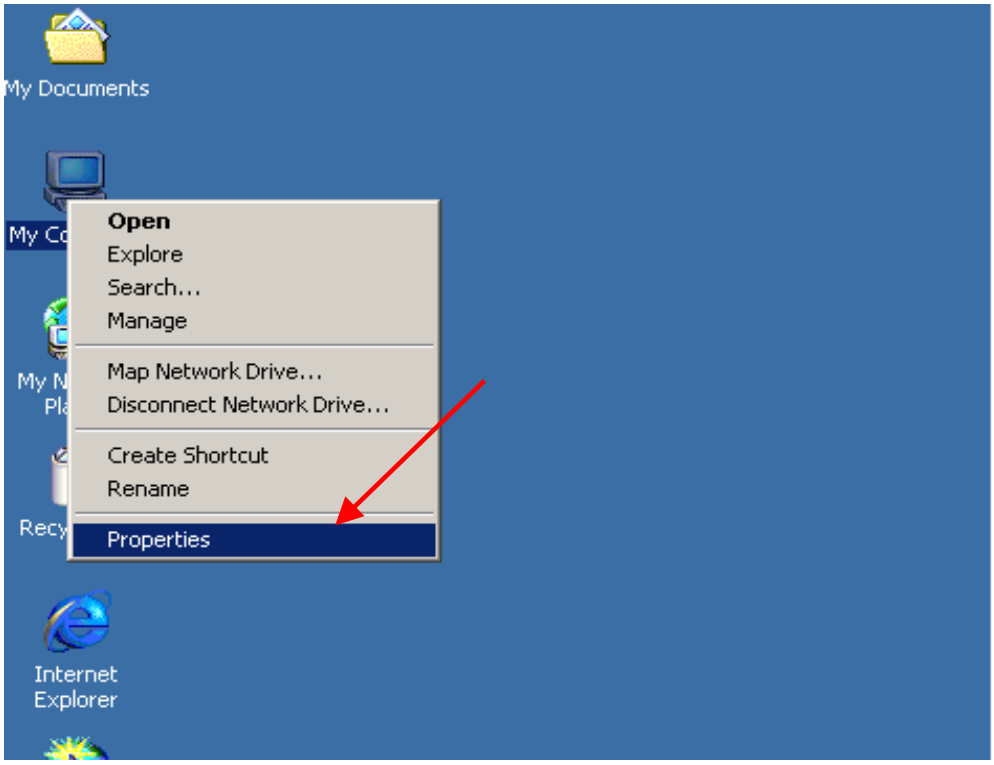


3. Uninstalling the Configuration Utility

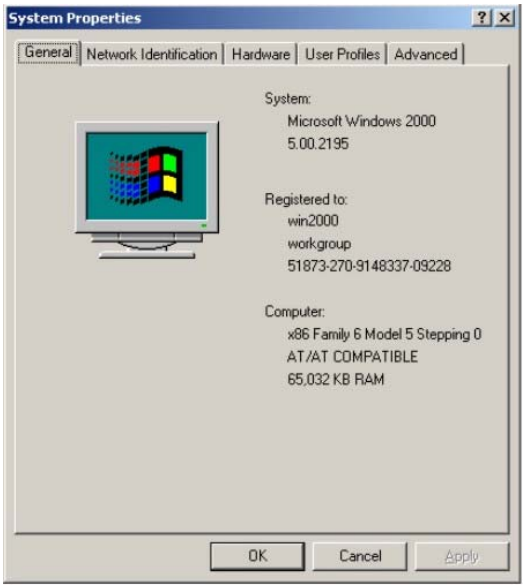
To uninstall the configuration utility simply click **Uninstall** under **Programs→WLAN Monitor→Uninstall**.



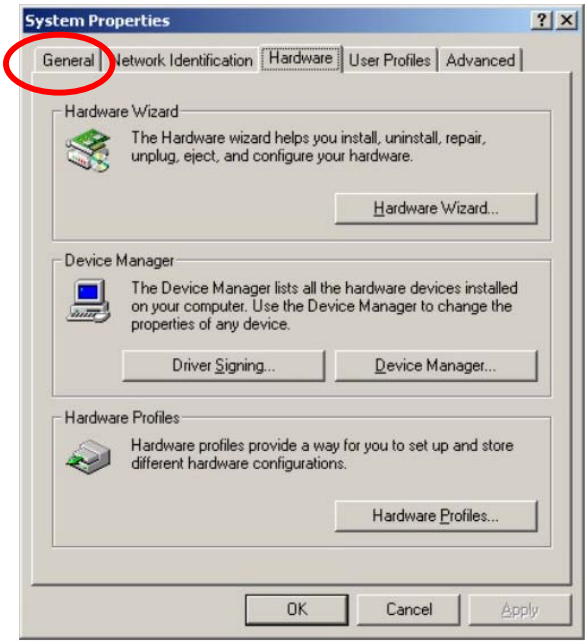
- To uninstall the driver, right-click on **My Computer**.



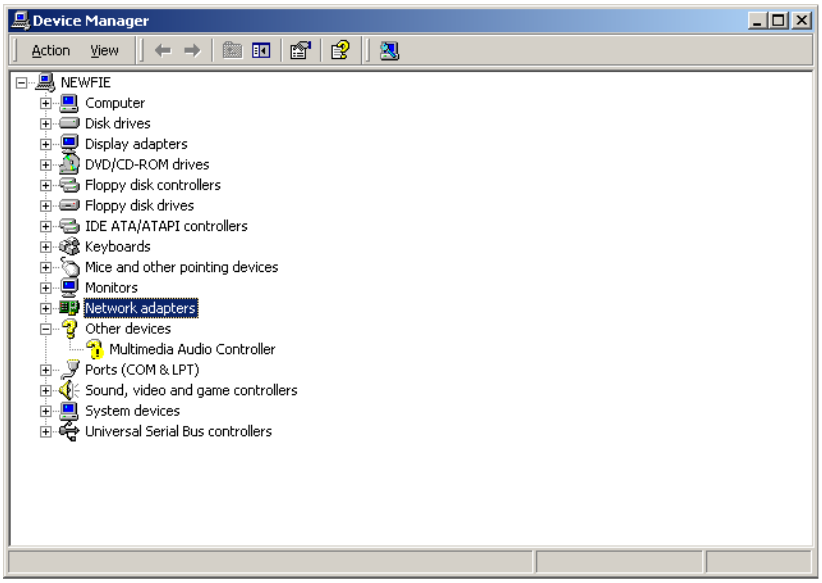
- Left-click on **Properties** to bring up the **System Properties** screen.



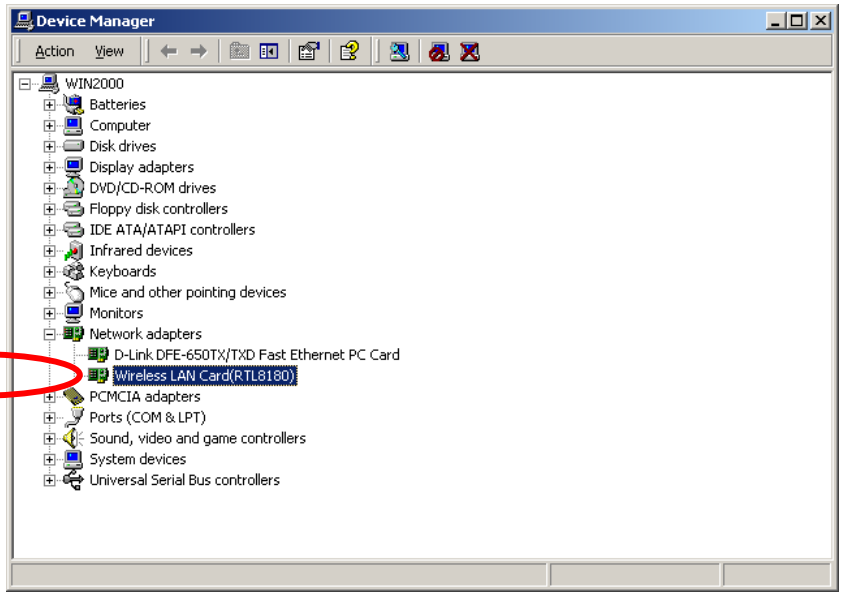
- Click on the **Hardware** tab.



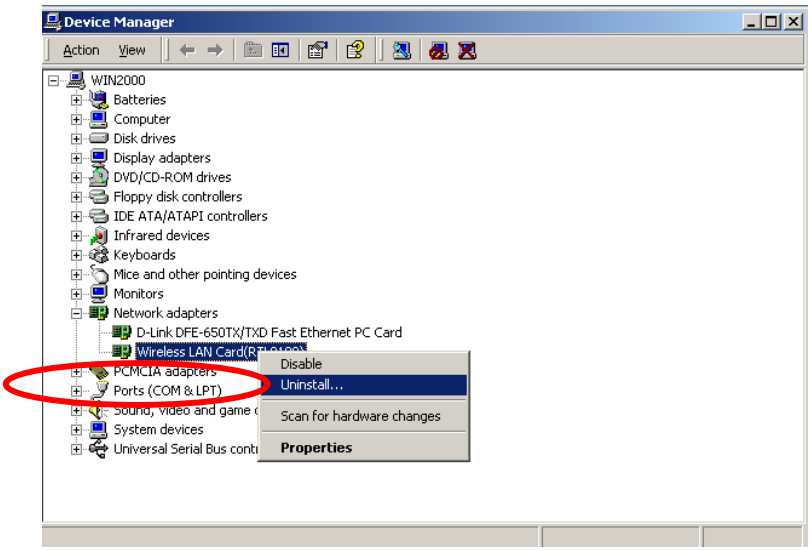
- Click on **Device Manager**.



- Click on **Network adapters**.



- Right-click on the “Wireless LAN Card (RTL8180)” icon.

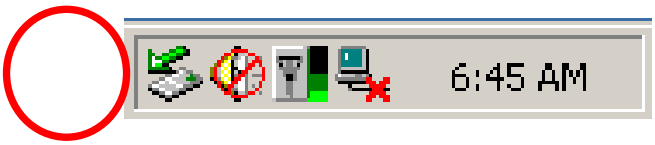


- Click on **Uninstall**. You will then receive a **Confirm Device Removal** screen. Click ***OK*** to complete the uninstallation.

Using the Configuration Utility *for Windows 2000, 98, or ME*

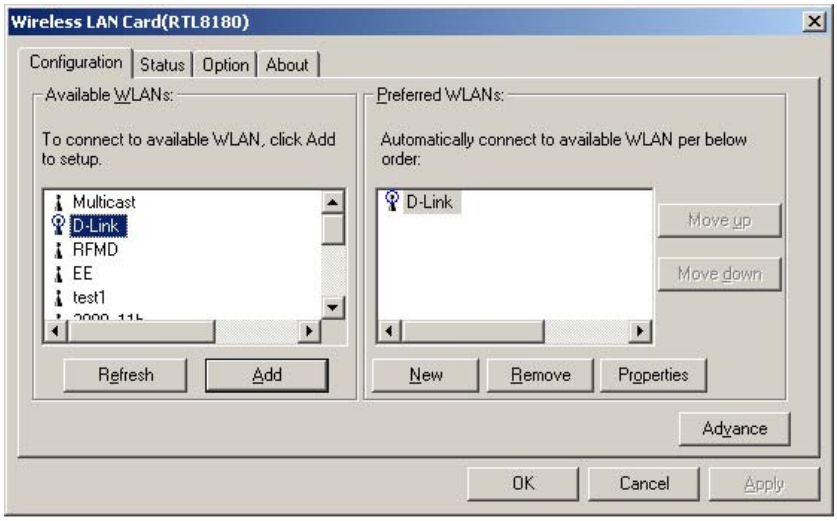
If you are using Windows 2000, 98, ME, or NT, the Configuration Utility program for the WUS-B12 is called **WLAN Monitor**. Once you have installed **WLAN Monitor** (the configuration utility), you can read this section of the manual to find out how to monitor and configure your WUS-B12 adapter using **WLAN Monitor**. Screenshots for this section have been taken in Windows 2000. There are four tabs in the **WLAN Monitor** Configuration Utility program. In this section we will describe the uses for each tab in the Configuration Utility window.

To access **WLAN Monitor** once it has been installed, just right-click on the **WLAN Monitor** icon in the taskbar, and then click on **Wireless Network**.



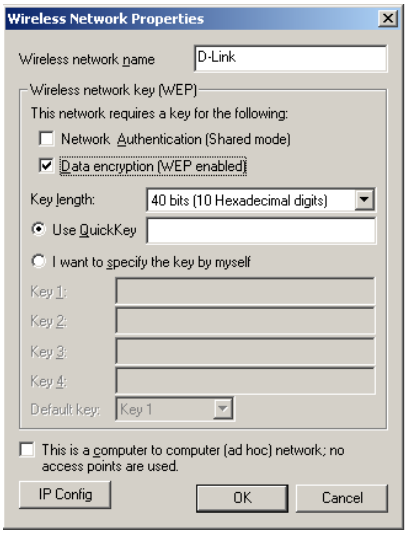
Under the **Configuration Tab** you will find a list of access points to which you may add or change connections.

Configuration Tab



Using the Configuration Utility *for Windows 2000, 98, or ME (continued)*

On the left side of the screen are *Available WLANs* which you may connect to by first selecting the WLAN (it will appear highlighted) and then clicking on ***Add***. When you do so a screen like the one below will pop up:



In the **Wireless Network Properties** screen you may change the name of the WLAN. You may also enter wireless network encryption keys by checking **Network Authentication (Shared mode)** or **Data encryption**. You may enter up to four keys of length 10 or 25 hexadecimal digits. You may also set one of the four keys as a default key.

Click on **IP Config** to set the IP address, Subnet mask, and Default gateway manually instead of obtaining the IP address automatically through the Dynamic Configuration Host Protocol (DCHP) server. You may also set the DNS server address settings and WINS address settings.

If the network you are using is a computer-to-computer network or ad hoc network, no access points are used. You may check the box “This is a computer to computer (ad hoc) network; no access points are used” to enable this option.

Using the Configuration Utility *for Windows 2000, 98, or ME (continued)*

On the **Configuration Tab** click on ***Refresh*** to call up all the available WLANs. On the right side of the screen is a list of *Preferred WLANs.* These are WLANs that have already been added to the wireless network. Click ***New*** to rename the WLAN and reset its properties. You will see the **Wireless Network Properties** screen as displayed previously when you click ***New***. This is also the same screen that will appear when you click ***Properties*** on the right side of the **Configuration Tab** screen. Click ***Remove*** to remove the connection.

On the right side of the screen you may click ***Move Up*** to move the selected WLAN up in the order it is displayed on the *Preferred WLANs* screen. You
may click ***Move Down*** to move the selected WLAN down in the order in which it is displayed.

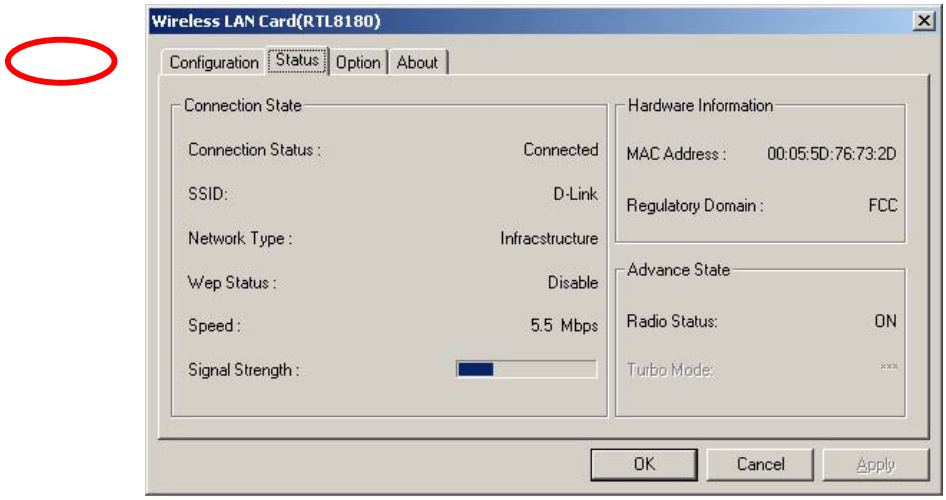
The ***Advance*** button allows the user to set the WLAN type to connect: infrastructure and ad hoc network, infrastructure network only, or ad hoc network only. You may also automatically connect to non-preferred networks by checking the option.

When you are done entering the settings and options for the wireless network click on ***OK***, ***Cancel***, or ***Apply***. ***Ok*** places the settings into effect and closes the graphical user interface (GUI). ***Cancel*** makes all settings entered invalid. ***Apply*** places the settings entered into effect but does not close the GUI.

Using the Configuration Utility *for Windows 2000, 98, or ME (continued)*

Under the **Status Tab** you will find information on the connection state, hardware information, and advanced state.

Status Tab



Information given under **Connected State** are the **Connection status** (connected or disconnected), **SSID**, **Network type** (infrastructure or adhoc), **Wep Status** (enabled or disabled), **Speed** (of the wireless connection), and **Signal Strength** (a colored bar shows the intensity of the radio signals in the network).

Under **Hardware Information** the **Media Access Control (MAC) address** of the hardware (WLAN USB adapter) is given. The MAC address is a factory given address that cannot be changed. A **Regulatory Domain** displays the code of the country in which this software is being used.

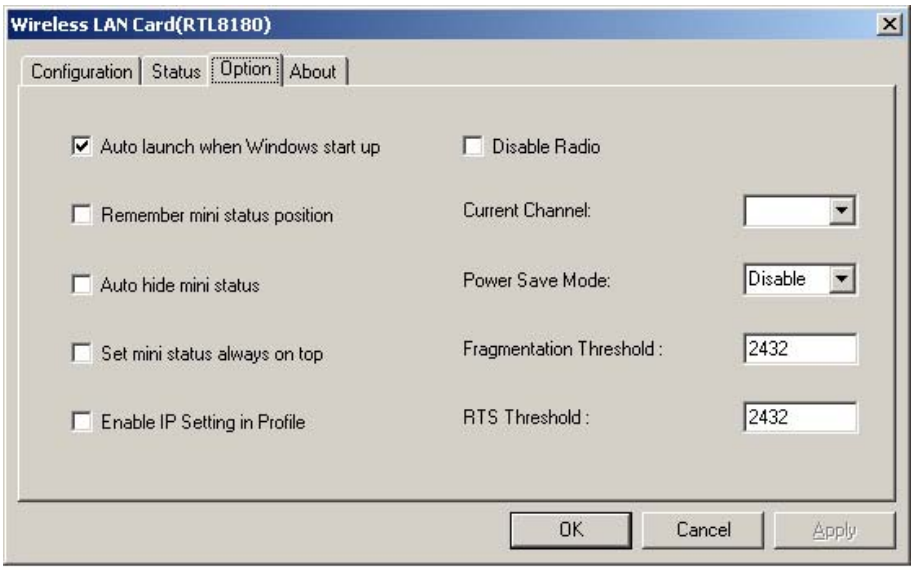
Advanced State shows the **Radio Status** (ON or OFF) and there is no **Turbo Mode**.

Click ***OK*** to accept the connection status and exit the GUI. Click ***Cancel*** to not accept the status settings and exit the GUI.

Using the Configuration Utility *for Windows 2000, 98, or ME (continued)*

Under the **Options Tab** general settings and advanced settings are shown.

Options Tab



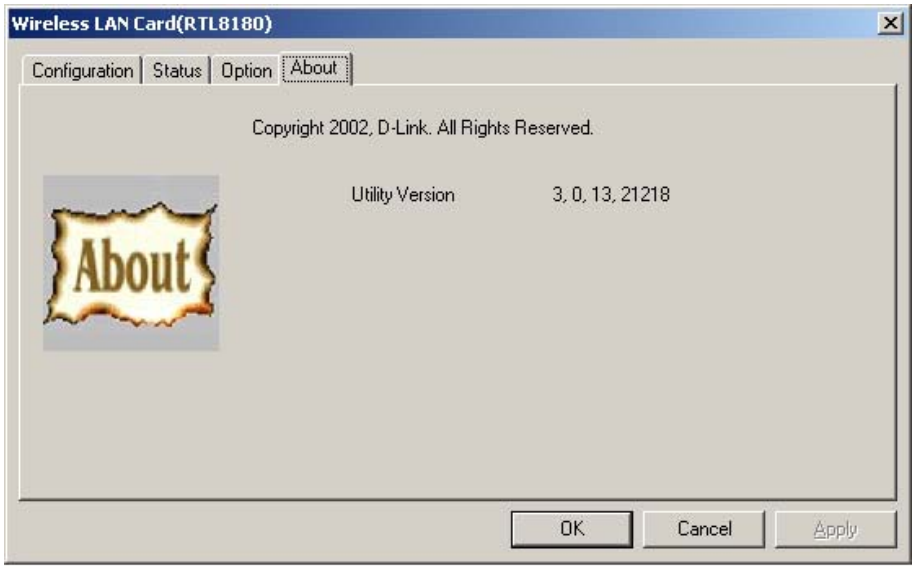
Check **"Auto launch when Windows starts up"** so that WLAN Monitor automatically launches when Windows starts up. Part of the GUI for WLAN Monitor is a mini status dialog box that appears when you left-click on the **WLAN Monitor** icon in the taskbar. **"Remember mini status position"** keeps track of the last position of the mini status dialog box. **"Auto hide mini status"** pulls the dialog box to the right and drags it off the screen. **"Set mini status always on top"** places the mini status dialog box on top of all other dialog boxes. Check **"Enable IP Setting in Profile"** to enable the IP settings made under **IP Config** in the **Wireless Network Properties** screen. If checked current IP settings will be saved. If unchecked (and previously checked) previous IP settings will be

restored. Check “Disable Radio” to disconnect the network connection without removing the WLAN USB adapter. You may select the **Current Chanel** (1, 2, or 3) and **Power Save Mode** (Disable, Max Save, Fast Save). You may enter the **Fragmentation Threshold** and **RTS Threshold**.

Using the Configuration Utility *for Windows 2000, 98, or ME (continued)*

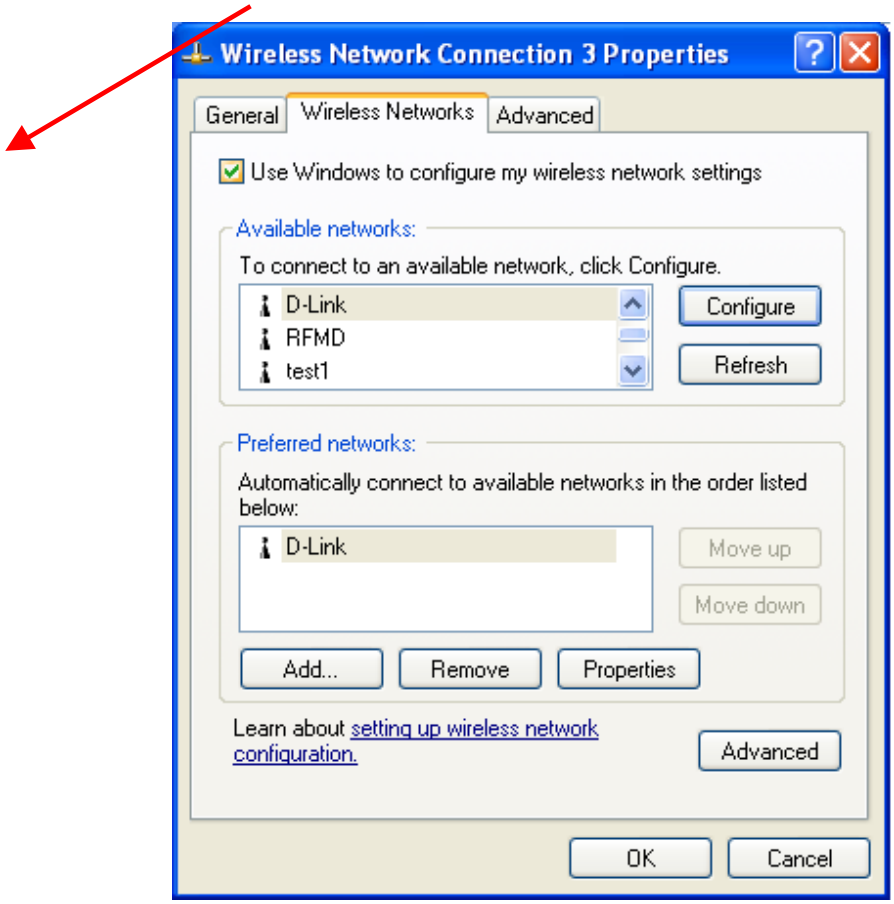
The **About Tab** gives the utility version of WLAN Monitor.

About Tab



Using the Configuration Utility for Windows XP

The WLAN Monitor Configuration Utility supports Windows XP; however, Windows XP has its own utility for wireless devices. In order to use the WLAN Monitor Configuration Utility as described in the last section you must disable the utility built into Windows XP by unchecking the box below.

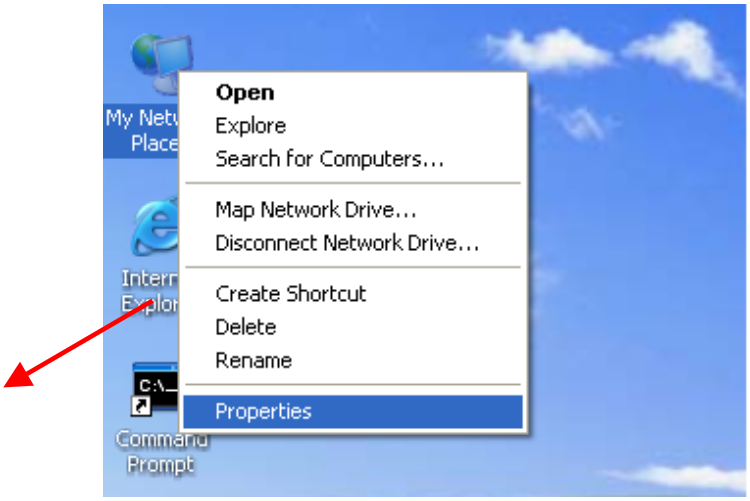


Using the Configuration Utility *for Windows XP (continued)*

If you leave the “Use Windows to configure my wireless network settings” box checked you will use the Windows XP utility for wireless devices.
The following demonstrates how to manage wireless network connections with the Windows XP built-in utility.

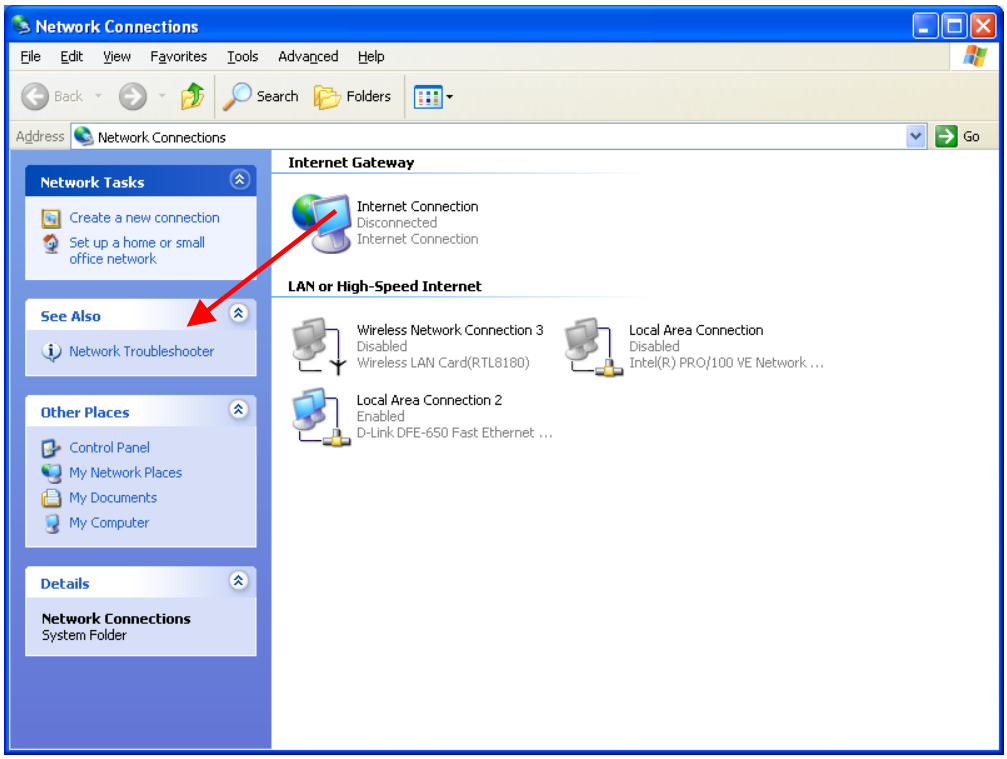
Creating a connection

- Right-click on **“My Network Places”** to obtain a drop-down menu with **Properties** listed.



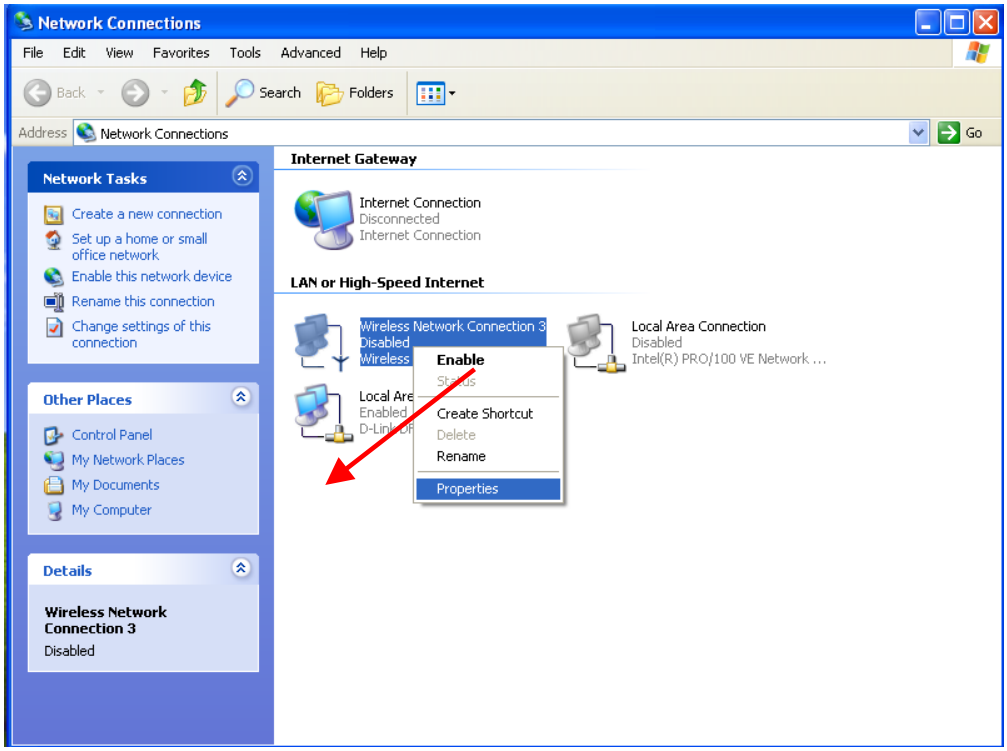
Using the Configuration Utility *for Windows XP (continued)*

- Left-click on **Properties** to obtain the **Network Connections** screen.



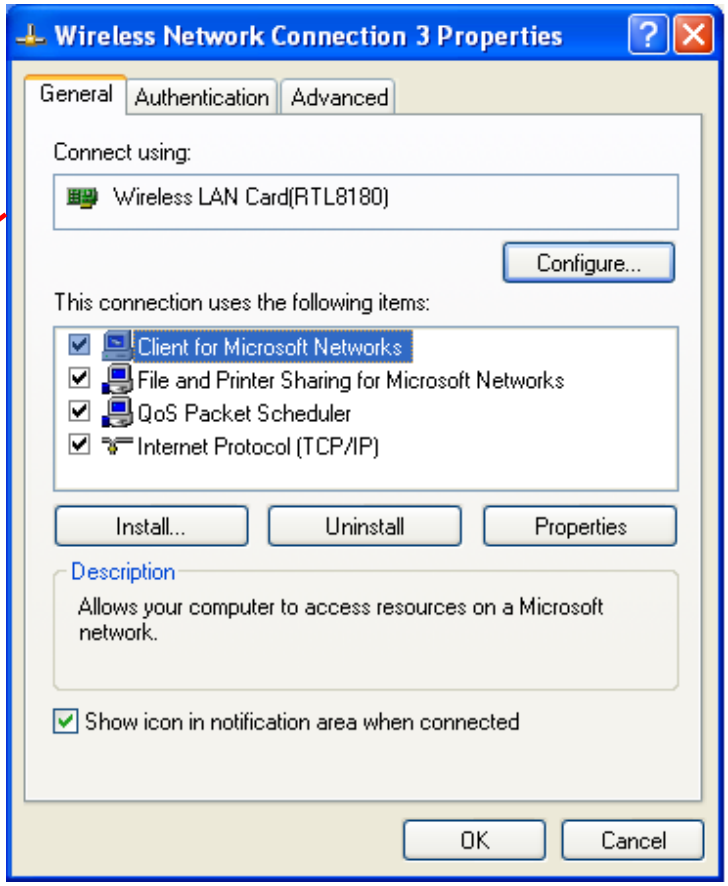
Using the Configuration Utility *for Windows XP (continued)*

- Right-click on the “Wireless Network Connection” icon to produce another drop-down menu with item **Properties**.



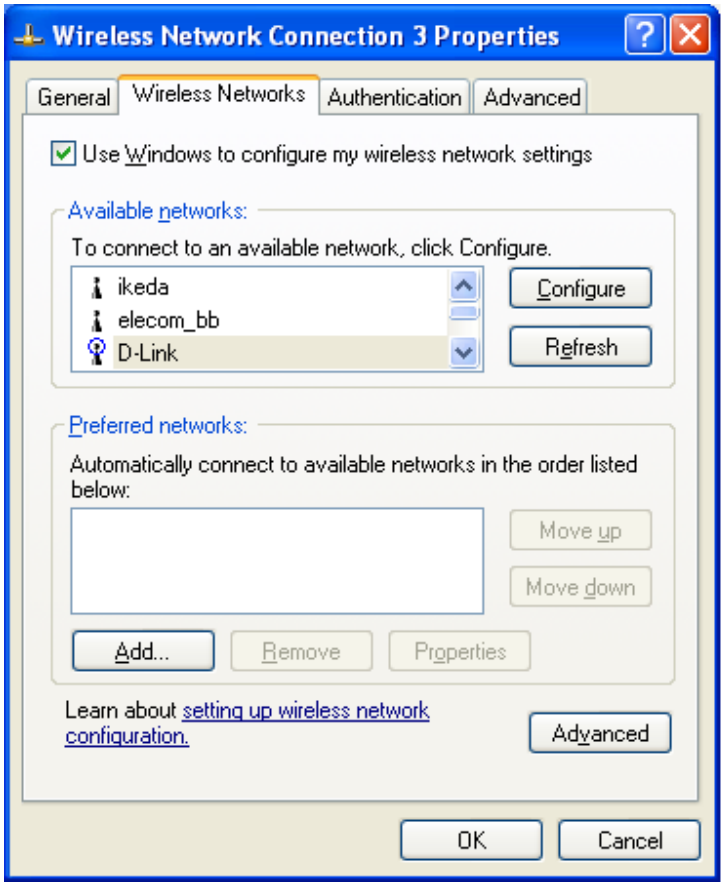
Using the Configuration Utility *for Windows XP (continued)*

- Left-click on **Properties** to bring up the screen below.



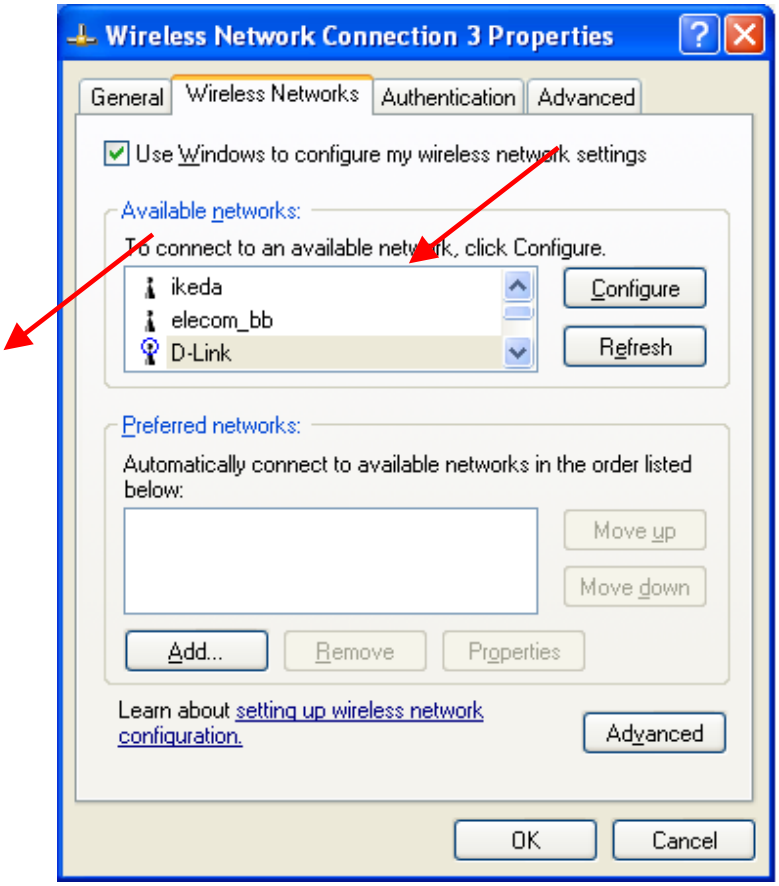
Using the Configuration Utility *for Windows XP (continued)*

- Click on the **Wireless Networks** tab.



Using the Configuration Utility *for Windows XP (continued)*

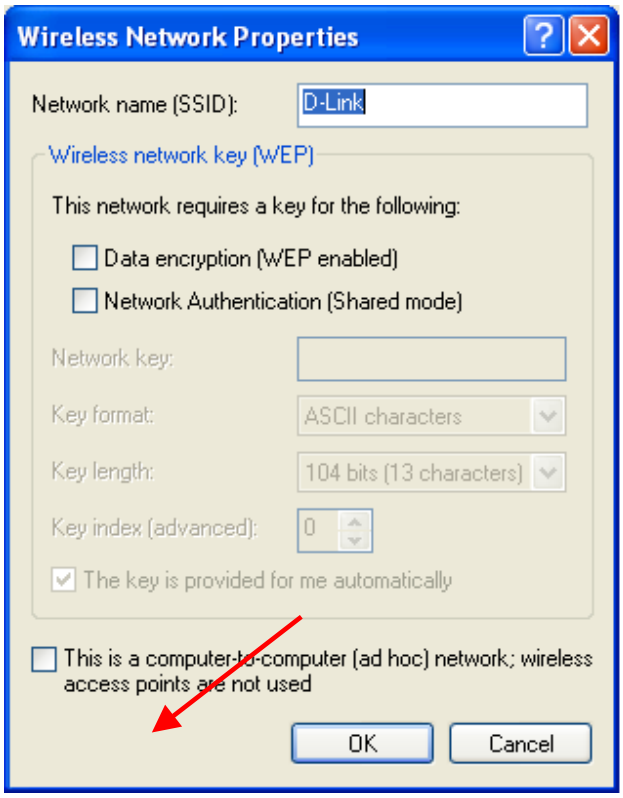
- Click on the Access Point under **Available Networks** with which you wish to establish a connection.



- Click on ***Configure*** to establish a connection with the chosen access point "D-Link." A screen such as the following called **Wireless Network Properties** will then appear.

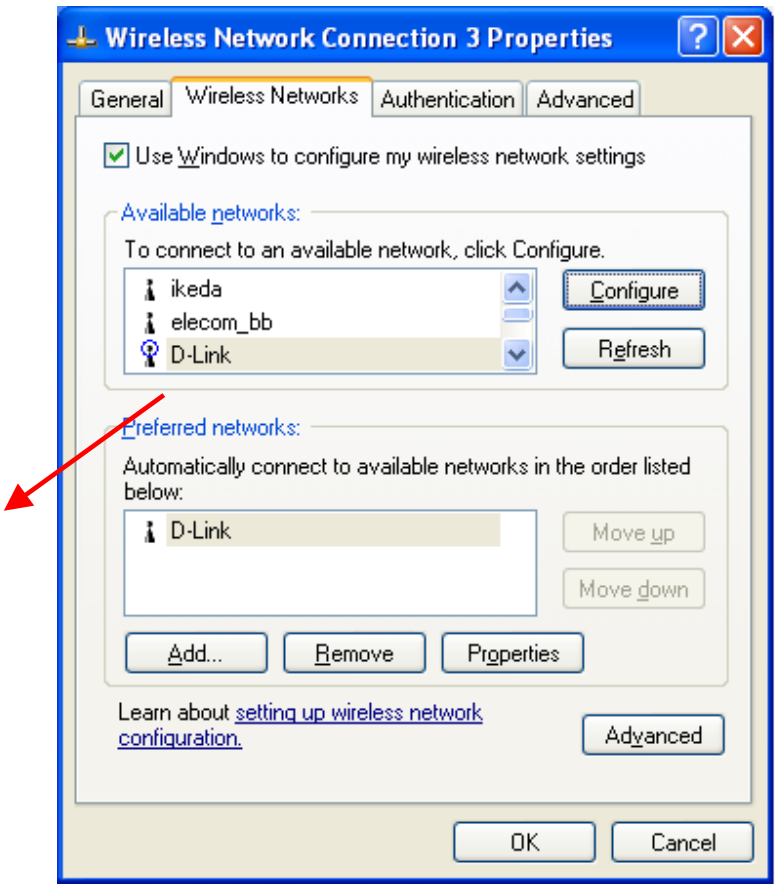
Using the Configuration Utility *for Windows XP (continued)*

- Enter the appropriate settings and click ***OK***.



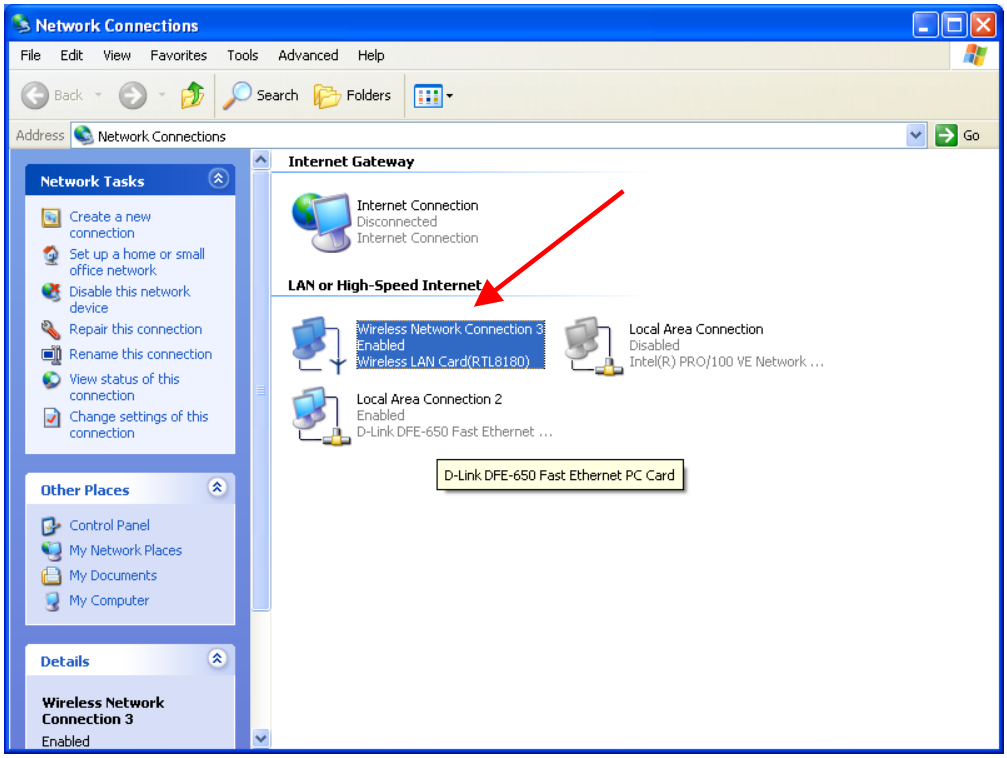
Using the Configuration Utility *for Windows XP (continued)*

- The access point “D-Link” has been added to the network under **Preferred networks**.



Using the Configuration Utility *for Windows XP (continued)*

- The **Network Connections** window now shows the wireless network connection as “**Enabled**”.


Network Connections
File Edit View Favorites Tools Advanced Help
Back Search Folders
Address Network Connections
Go
Network Tasks
Create a new connection
Set up a home or small office network
Disable this network device
Repair this connection
Rename this connection
View status of this connection
Change settings of this connection
Other Places
Control Panel
My Network Places
My Documents
My Computer
Details
Wireless Network Connection 3
Enabled
Internet Gateway
Internet Connection
Disconnected
Internet Connection
LAN or High-Speed Internet
Wireless Network Connection 3
Enabled
Wireless LAN Card(RTL8180)
Local Area Connection
Disabled
Intel(R) PRO/100 VE Network ...
Local Area Connection 2
Enabled
D-Link DFE-650 Fast Ethernet ...
D-Link DFE-650 Fast Ethernet PC Card

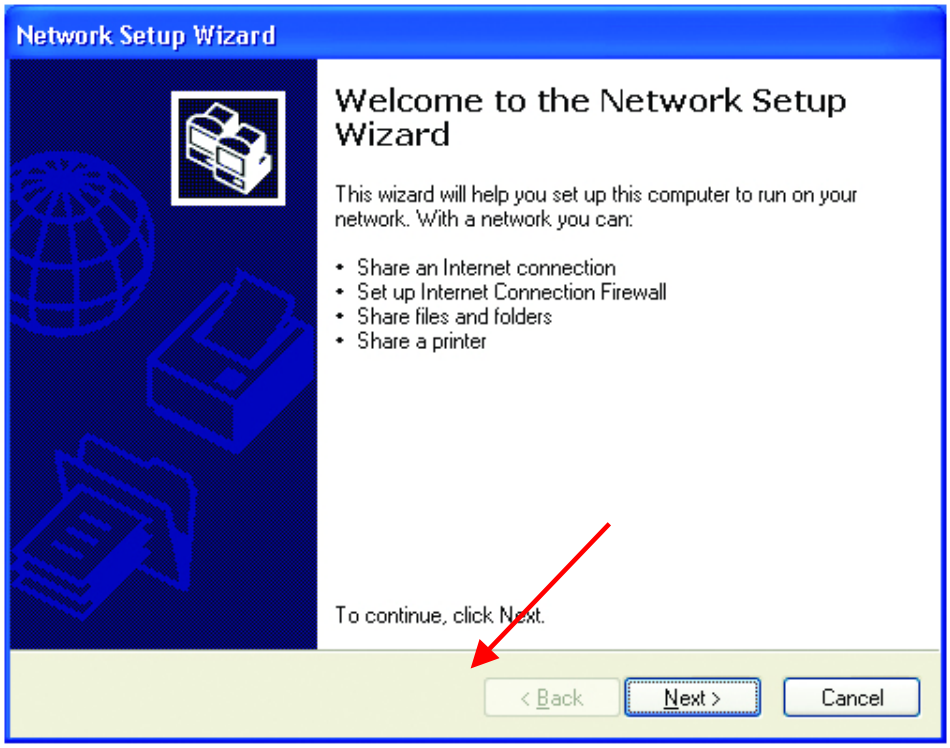
Networking Basics

Using the Network Setup Wizard in Windows XP

In this section you will learn how to establish a network at home or work, using **Microsoft Windows XP.**

Note: Please refer to websites such as http://www.homenethelp.com and http://www.microsoft.com/windows2000 for information about networking computers using Windows 2000, ME, or 98.

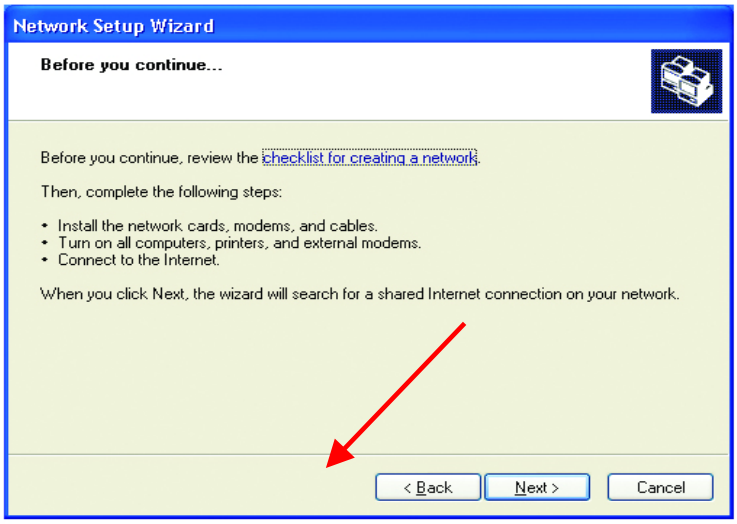
Go to START>CONTROL PANEL>NETWORK CONNECTIONS
Select **Set up a home or small office network.**



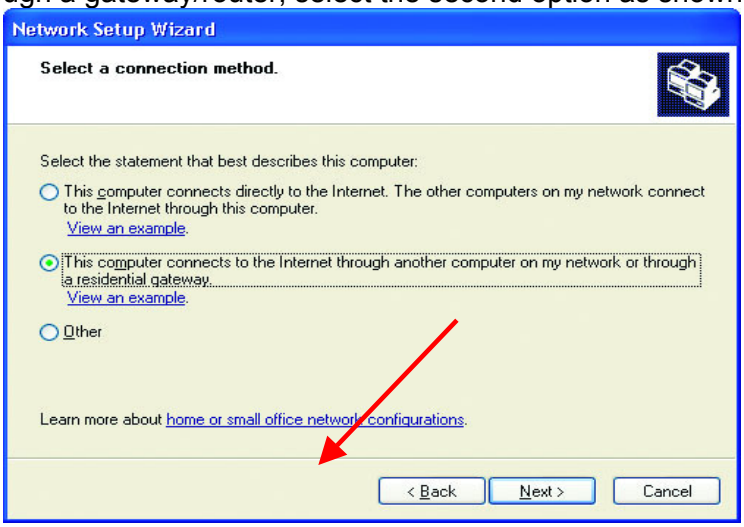
- When this screen appears, **Click Next**.

Networking Basics

Please follow all the instructions in this window:

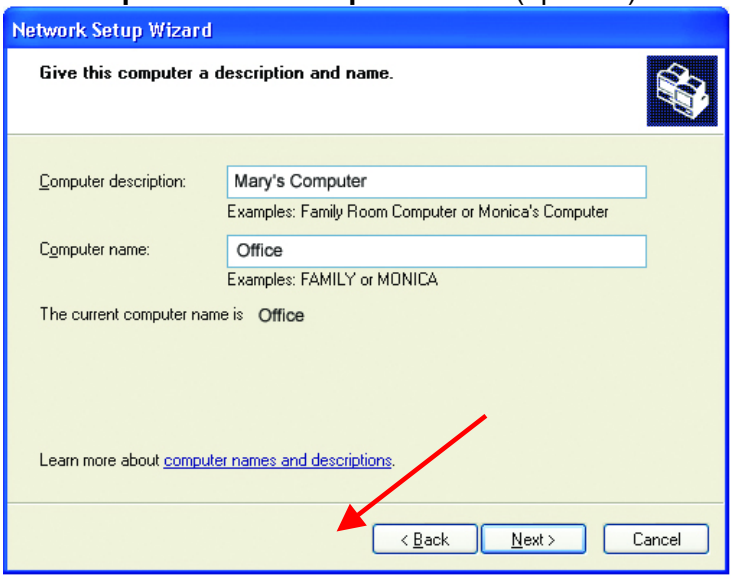


- **Click Next.**
- In the following window, select the best description of your computer. If your computer connects to the Internet through a gateway/router, select the second option as shown and **Click Next**.

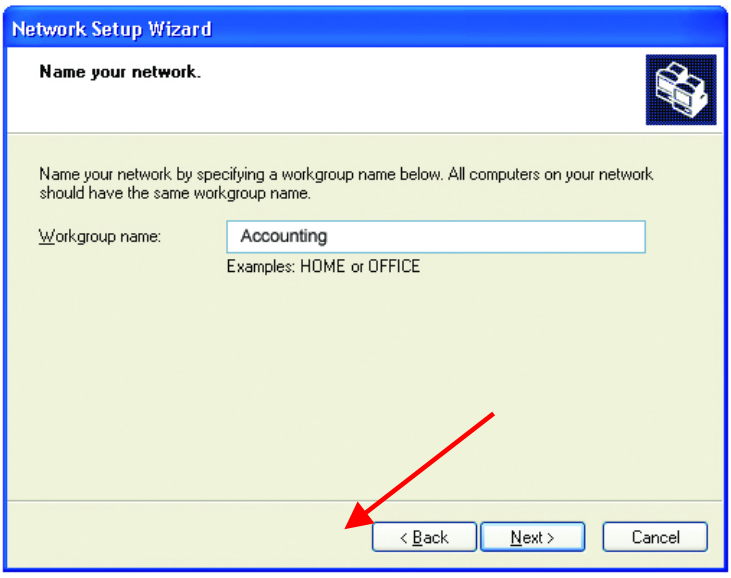


Networking Basics

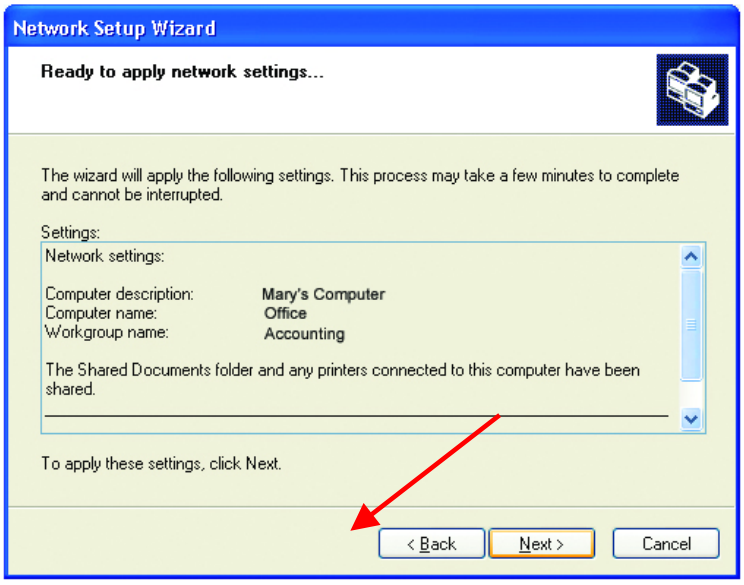
- Enter a **Computer description** and a **Computer name** (optional) and **Click Next**.



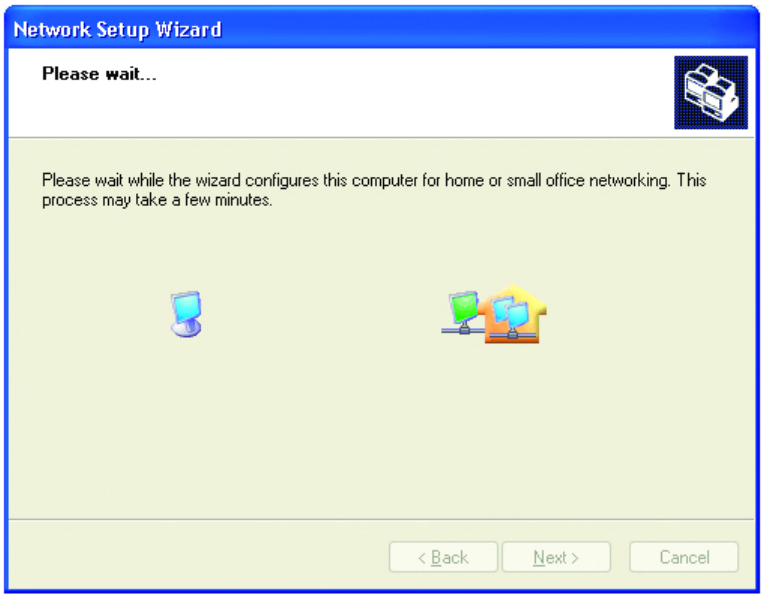
- Enter a **Workgroup** name and **Click Next**. All computers on your network should have the same **Workgroup name.**



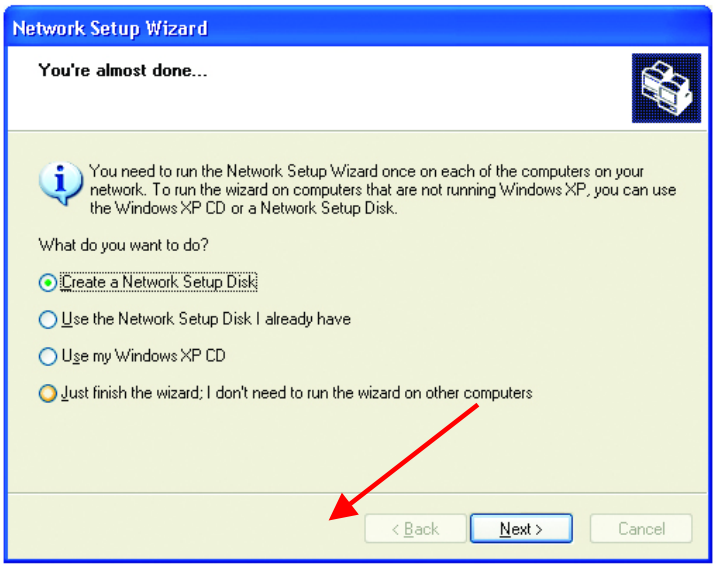
- Please wait while the wizard applies the changes. When the changes are complete, **Click Next**.



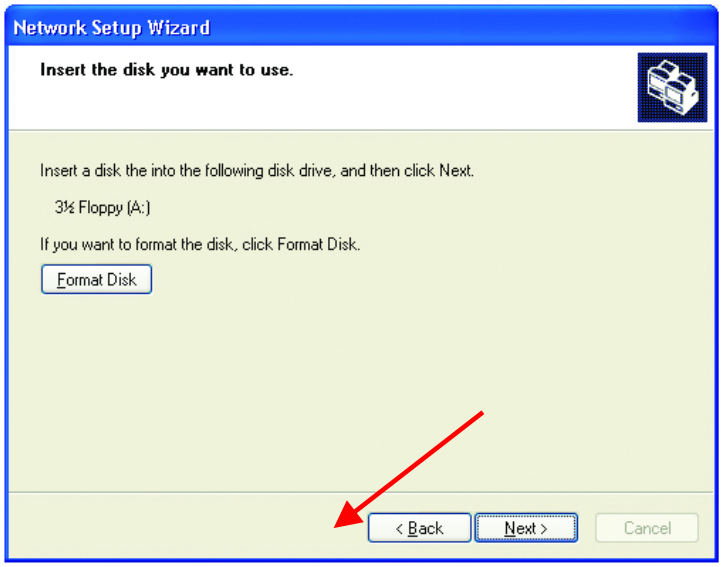
- Please wait while the wizard configures the computer.
  This may take a few minutes.



- In the window below, select the best option. In this example, **"Create a Network Setup Disk"** has been selected. You will run this disk on each of the computers on your network. **Click Next**.

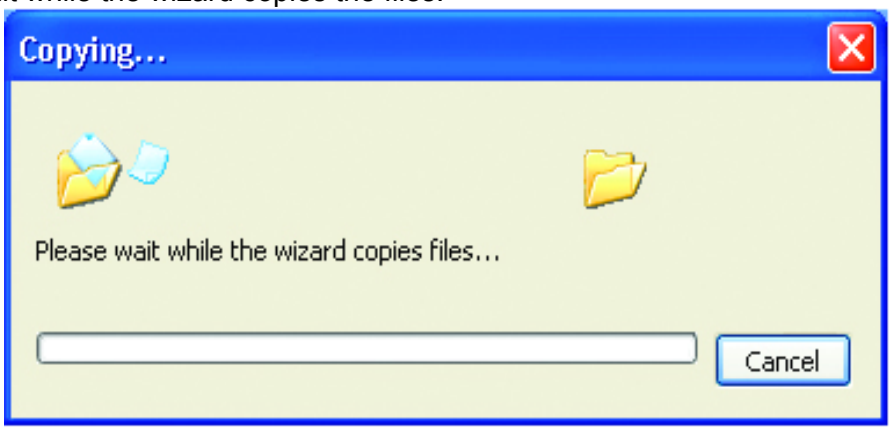


- Insert a disk into the Floppy Disk Drive, in this case drive **"A:"** Format the disk if you wish, and **Click Next.**

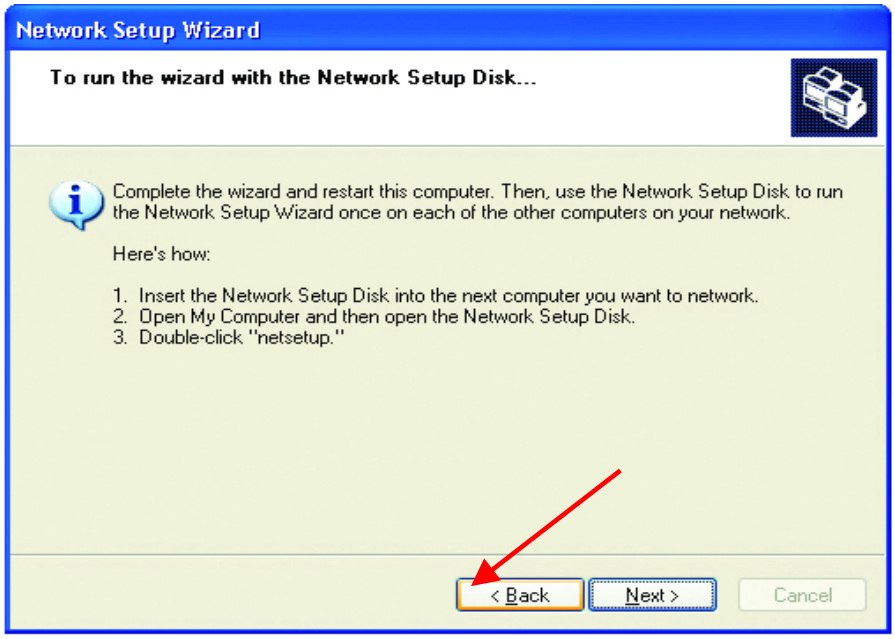


Networking Basics

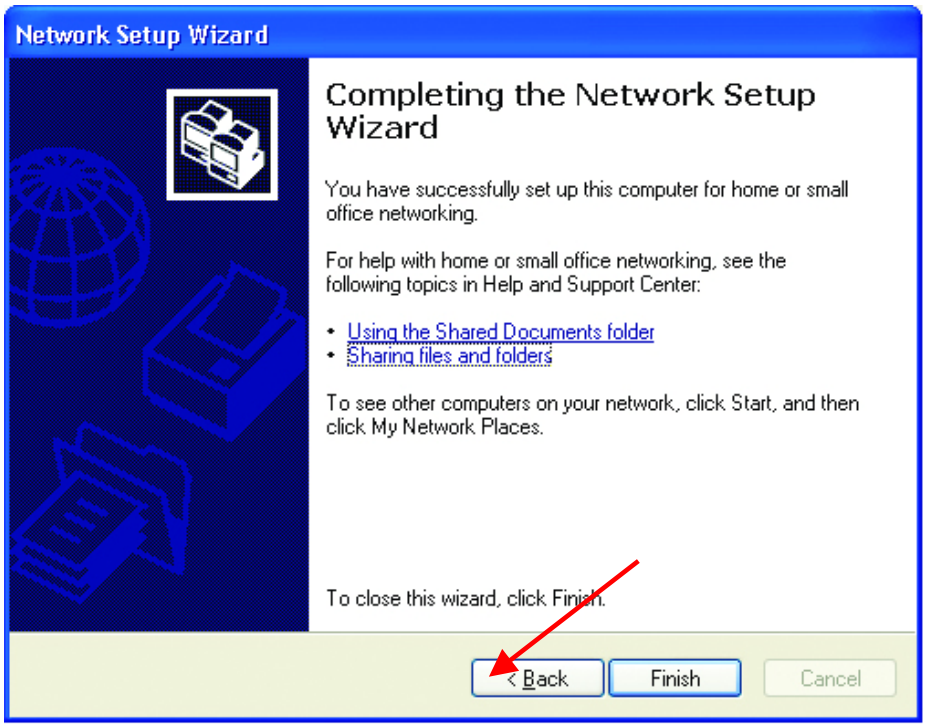
- Please wait while the wizard copies the files.



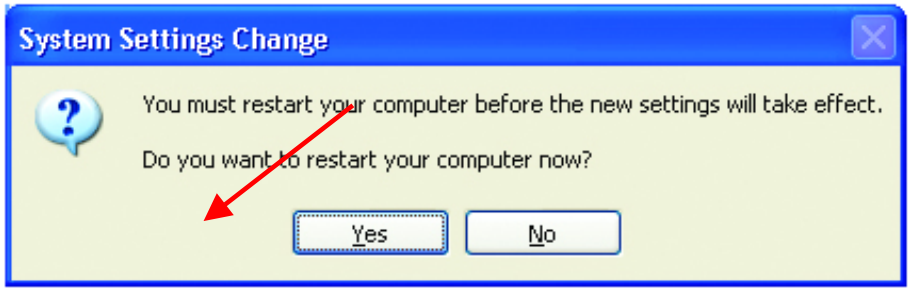
- Please read the information under **Here's how** in the screen below. After you complete the **Network Setup Wizard** you will use the **Network Setup Disk** to run the **Network Setup Wizard** once on each of the computers on your network. To continue **Click Next**.



- Please read the information on this screen, then **Click Finish** to complete the **Network Setup Wizard**.



- The new settings will take effect when you restart the computer. **Click Yes** to restart the computer.



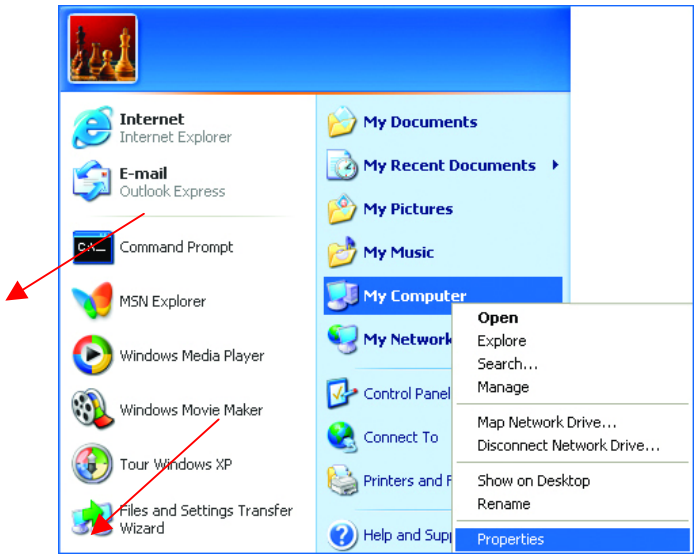
You have completed configuring this computer. Next, you will need to run the **Network Setup Disk** on all the other computers on your network. After running the **Network Setup Disk** on all your computers, your new wireless network will be ready to use.

Naming your Computer

To name your computer, please follow these directions:

In **Windows XP**:

- **Click START** (in the lower left corner of the screen)
- **Right-click** on **My Computer**
- **Select Properties** and **Click**

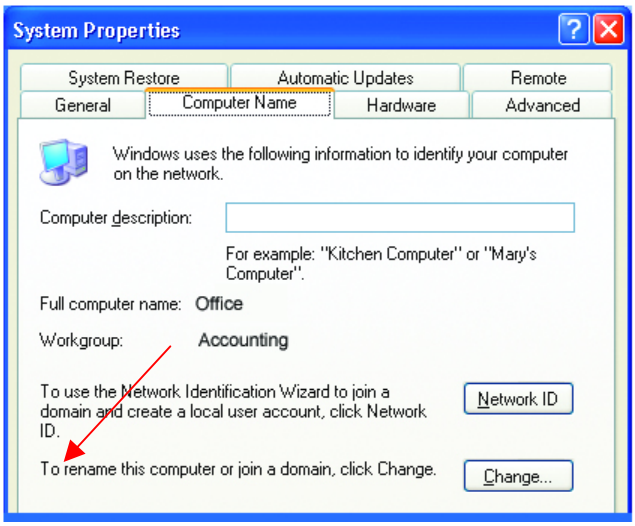


- **Select** the **Computer Name Tab** in the **System Properties** window.

*You may enter a **Computer description** if you wish, this field is optional.*

To rename the computer and join a domain,

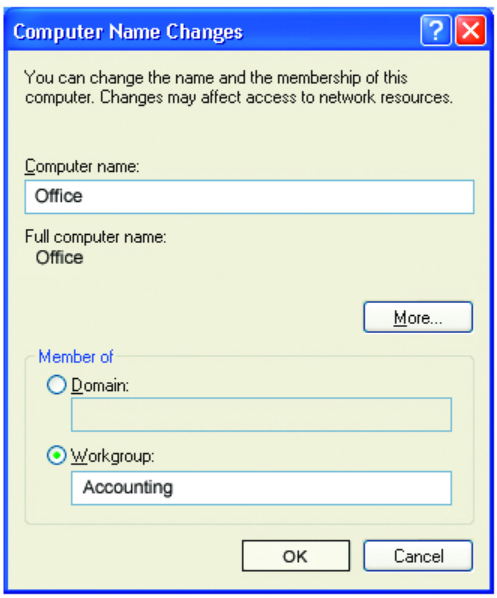
- **Click Change**



Networking Basics

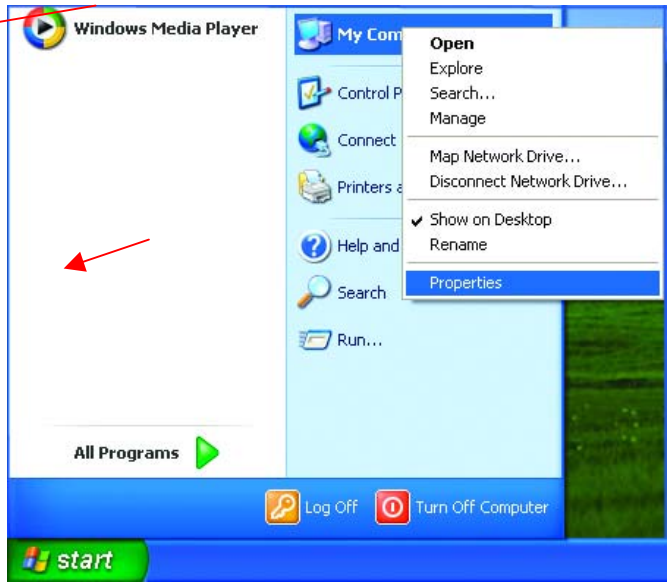
Naming your Computer *(continued)*

- In this window, enter the **Computer name**.
- Select **Workgroup** and enter the name of the **Workgroup**.
- All computers on your network must have the same **Workgroup** name.
- **Click OK**



Checking the Installation of the Drivers for the Wireless Adapter

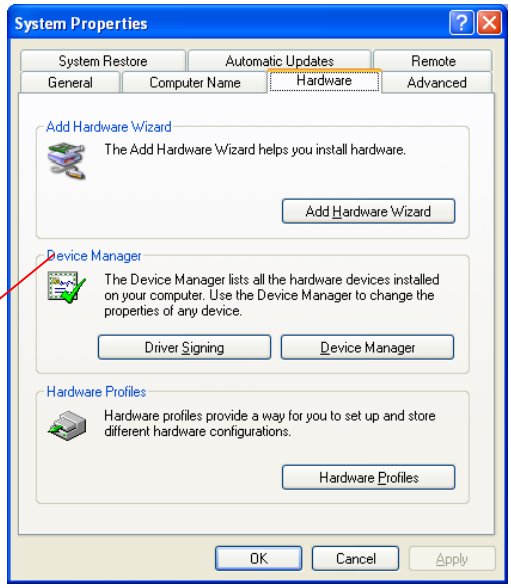
- **Go** to **Start**
- **Right-click** on **My Computer**
- **Click Properties**



Networking Basics

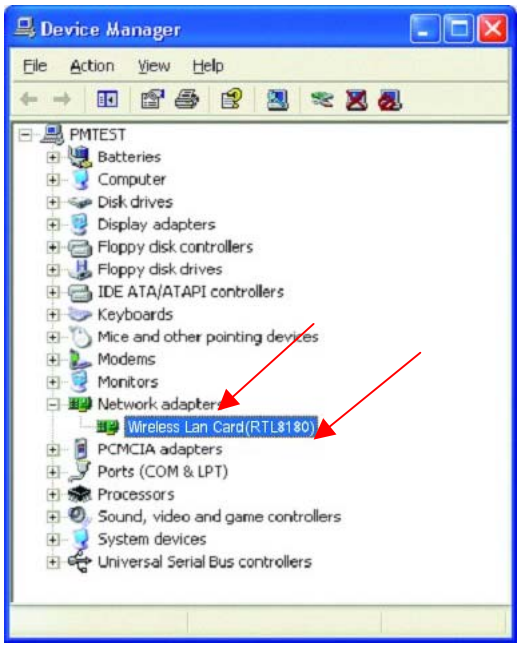
Checking the Installation of the Drivers for the Wireless Adapter

- **Select** the **Hardware Tab**
- **Click Device Manager**

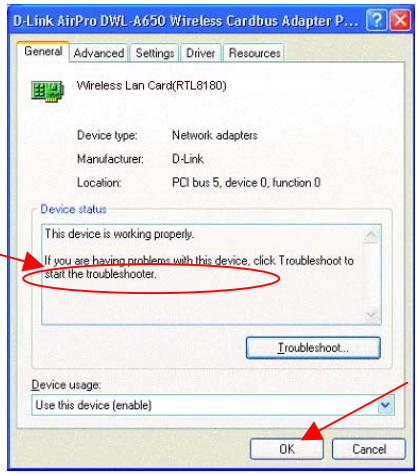


Networking Basics
Checking the Installation of the Drivers for the Wireless Adapter

- **Click** on **Network Adapters**
- **Right-click** on **Wireless LAN Card**
  - **Select Properties** to check that the drivers are installed properly



- **Look** under **Device Status** to check that the device is working properly.

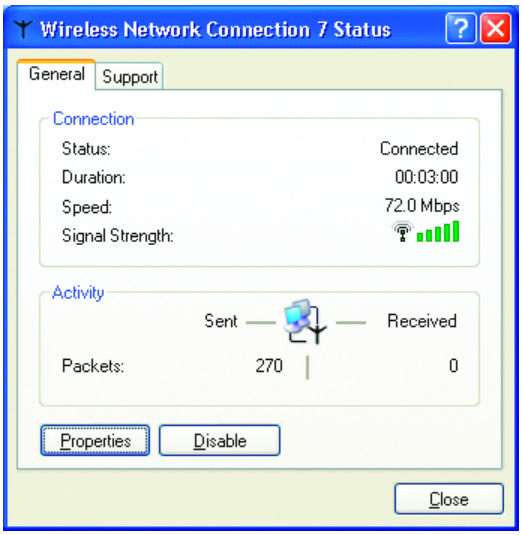


- **Click OK**

Checking the Wireless Configuration

- **Double-click** on the **Networking Icon** in the taskbar.

In this window you will see the **Signal Strength** and the **Status** of the WUS-B12.
In this case the Status and the Signal Strength are fine.



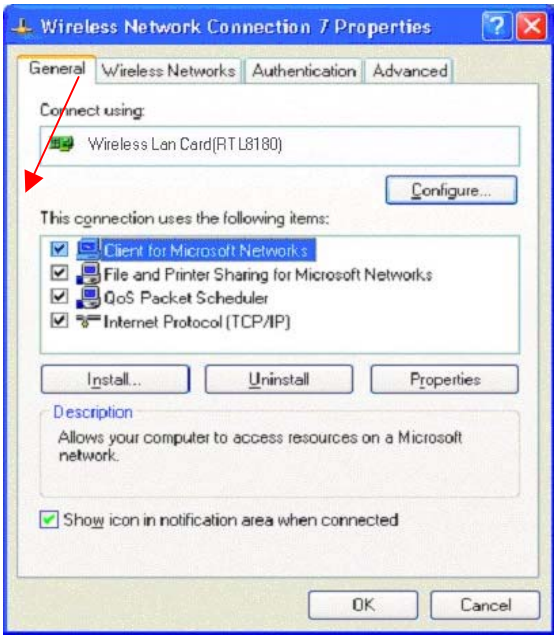
For more information:

- **Click Properties**

Networking Basics

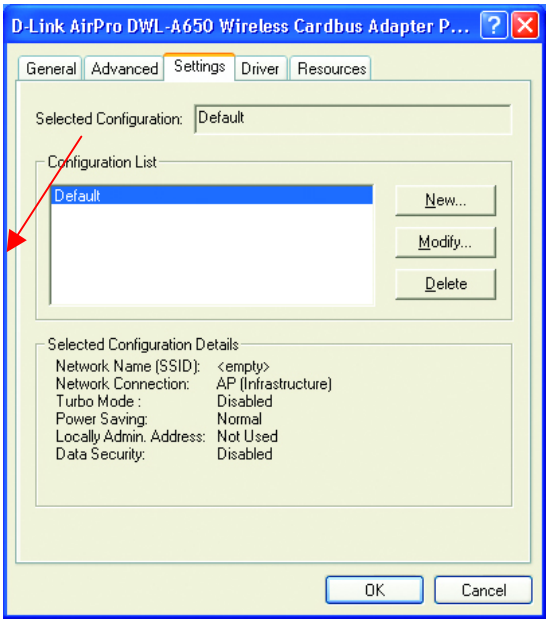
Checking the Wireless Configuration

- **Click Configure** to access more information.



- Select **Settings**

This screen shows the wireless configuration.

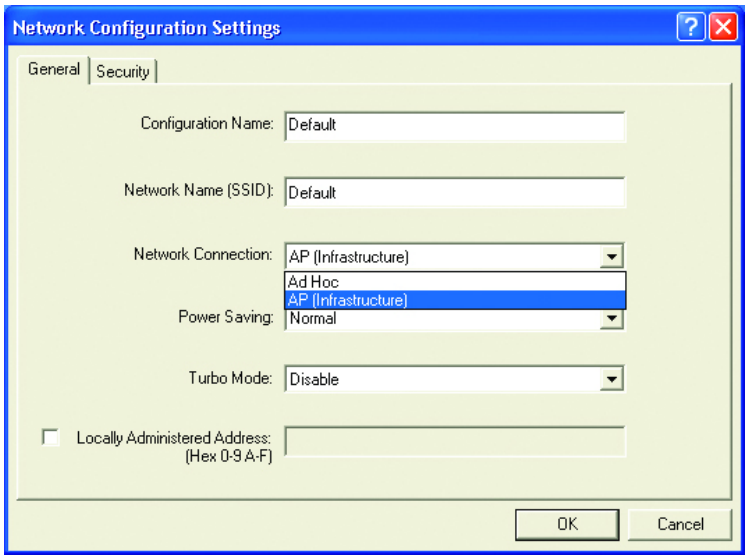


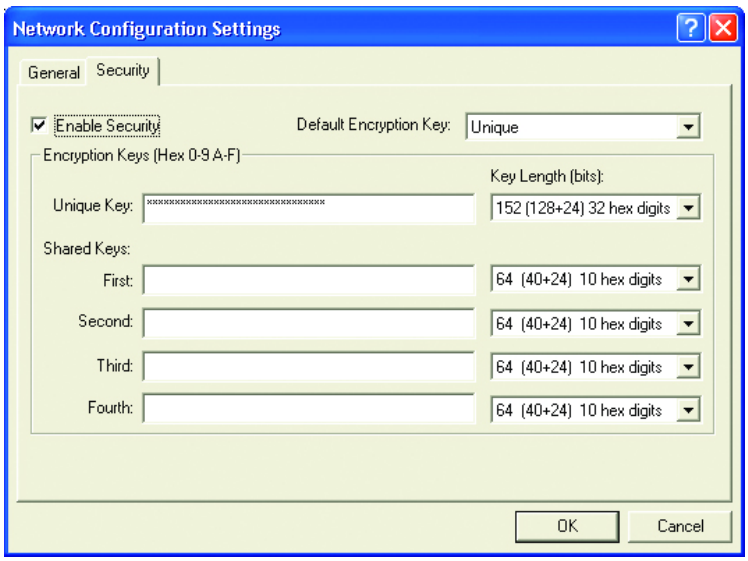
- **Click Modify** to check on the configuration.

Networking Basics

Checking the Wireless Configuration

- The **Network Name (SSID)** should be set to **Default.**
- The **Network Connection** should be set to the correct mode (**Infrastructure** or **Ad Hoc**.)
- The **Turbo Mode** setting (**Disabled** in the example here) must be the same on all the stations in your network.
- **Click** on the **Security Tab**
- If **Enable Security** is selected on one station on your network, it must be selected on all stations. Likewise, if **Enable Security** is deselected on one station, it must be deselected on all stations.





- Check to see that your **IP Address** and your **Subnet Mask** are in the correct range. See the **Networking Basics** sections: **Checking the IP Address** and **Assigning a Static IP Address**.