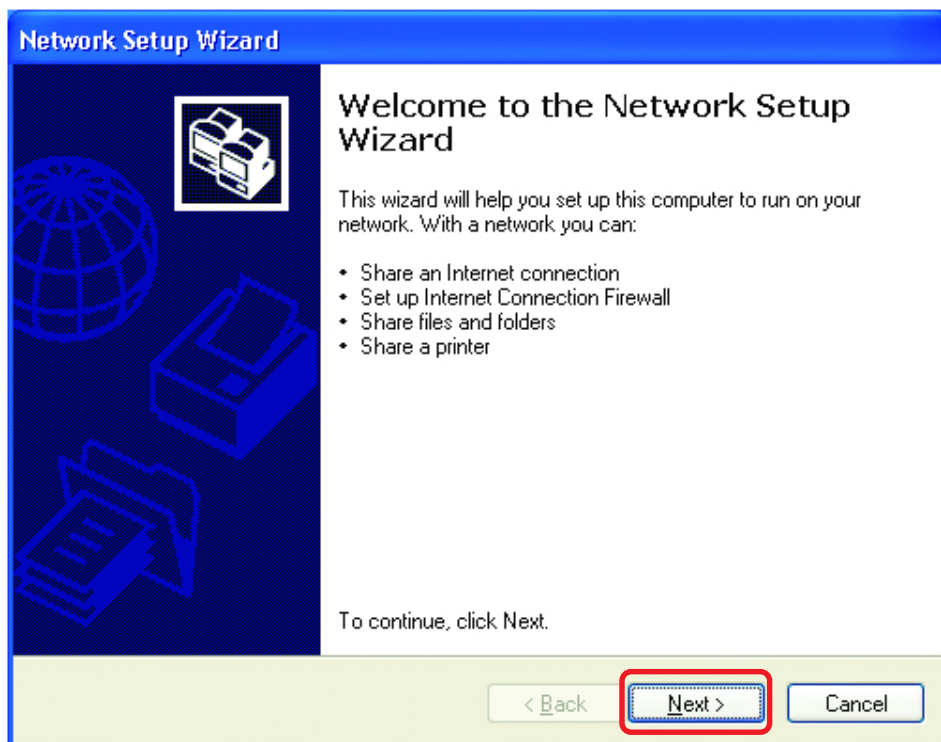# Networking Basics

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.
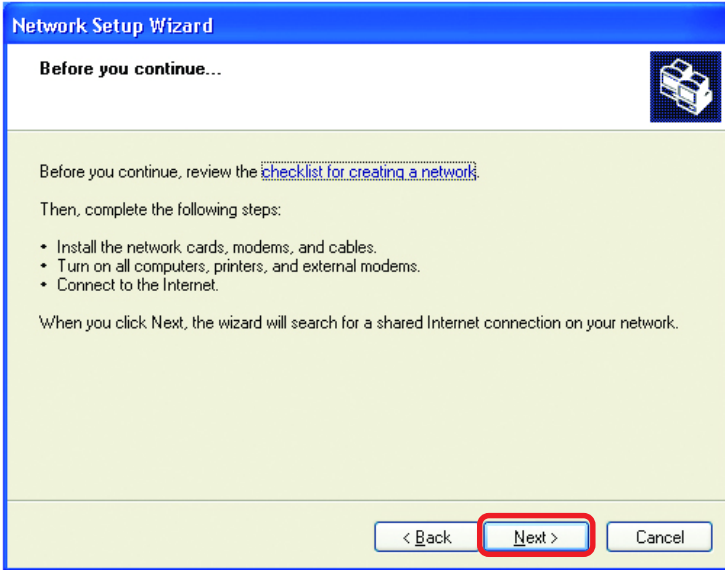
Go to **Start>Control Panel>Network Connections**
Select **Set up a home or small office network**

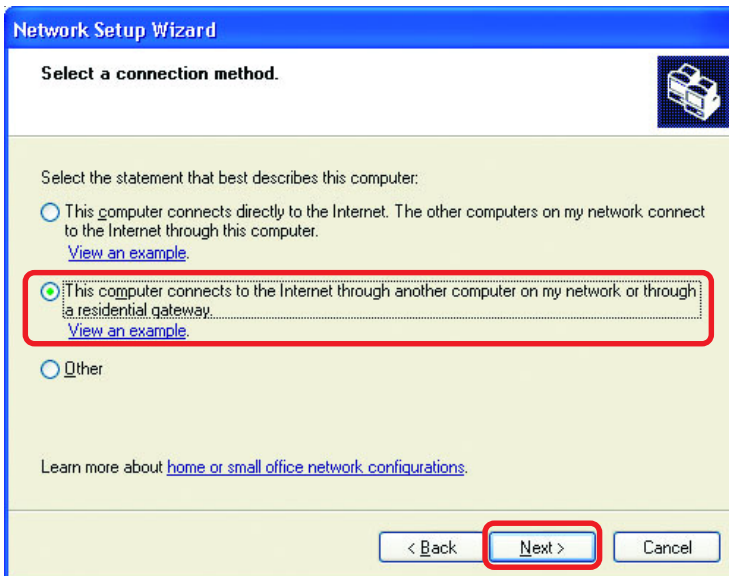When this screen appears, **Click Next.**

Networking Basics

Please follow all the instructions in this window:

Network Setup Wizard

Before you continue...

Before you continue, review the checklist for creating a network.

Then, complete the following steps:

- Install the network cards, modems, and cables.
- Turn on all computers, printers, and external modems.
- Connect to the Internet.

When you click Next, the wizard will search for a shared Internet connection on your network.

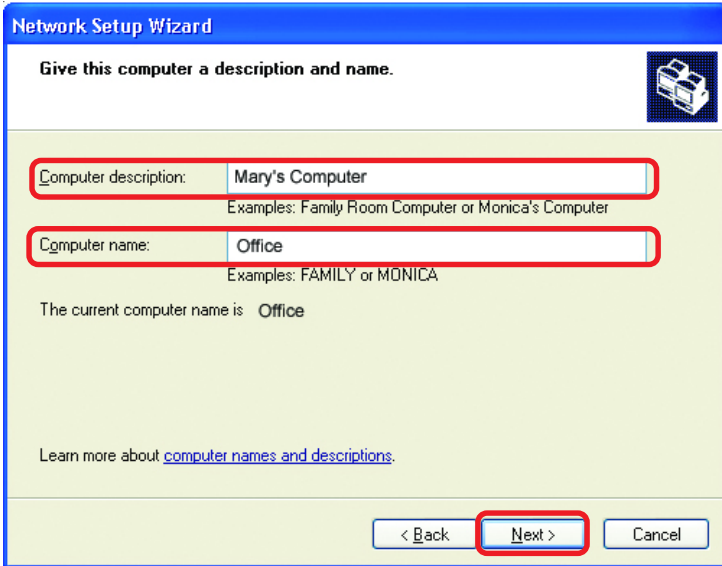< Back   Next >   Cancel

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.

Network Setup Wizard

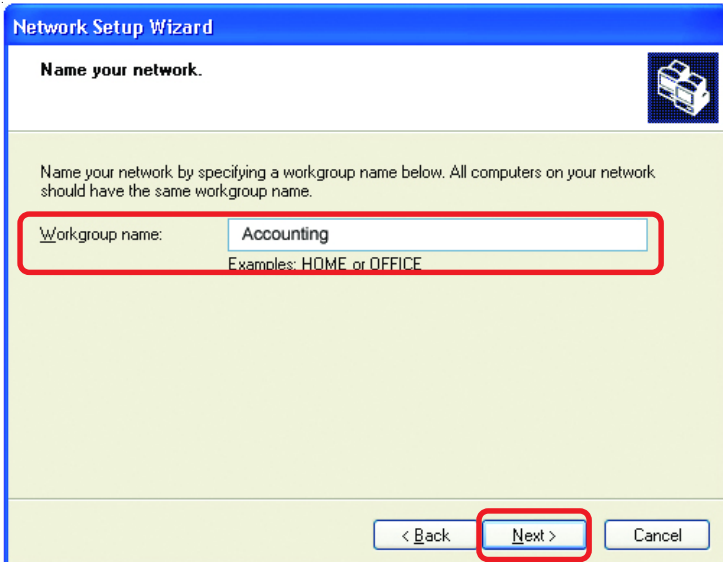**Select a connection method.**

Select the statement that best describes this computer:

○ This computer connects directly to the Internet. The other computers on my network connect to the Internet through this computer.
   View an example.

⊙ This computer connects to the Internet through another computer on my network or through a residential gateway.
   View an example.

○ Other

Learn more about home or small office network configurations.

< Back   Next >   Cancel

Click **Next**

Networking Basics

Enter a **Computer description** and a **Computer name** (optional.)

Network Setup Wizard

Give this computer a description and name.

Computer description: Mary's Computer

Examples: Family Room Computer or Monica's Computer

Computer name: Office

Examples: FAMILY or MONICA

The current computer name is   Office

Learn more about computer names and descriptions.

< Back   Next >   Cancel

Click **Next**

Enter a **Workgroup** name. All computers on your network should have the same **Workgroup name.**

Network Setup Wizard
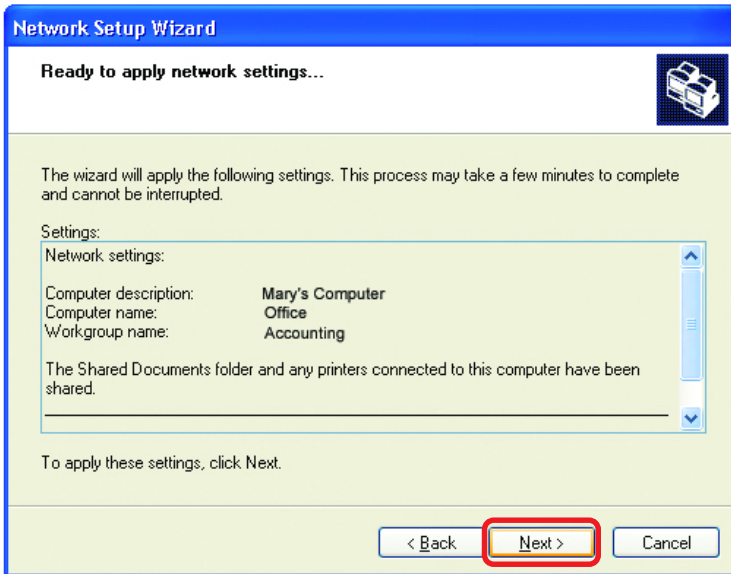
Name your network.

Name your network by specifying a workgroup name below. All computers on your network should have the same workgroup name.

Workgroup name: Accounting

Examples: HOME or OFFICE

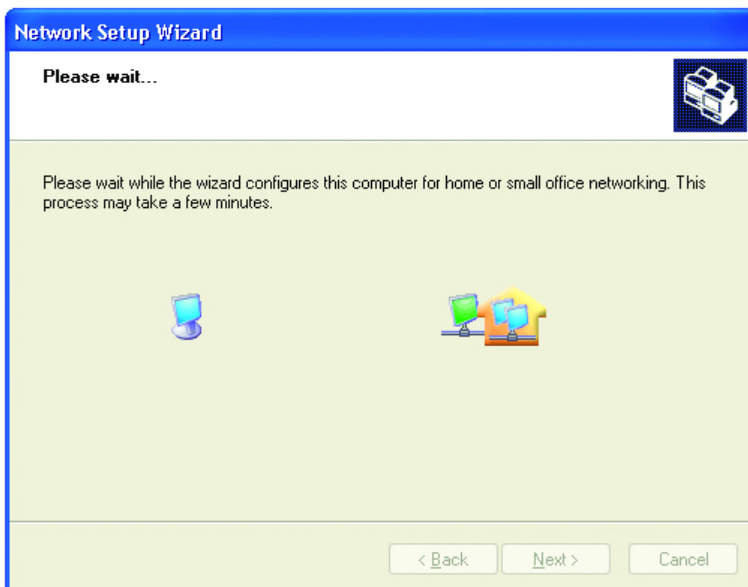< Back   Next >   Cancel

Click **Next**

Networking Basics

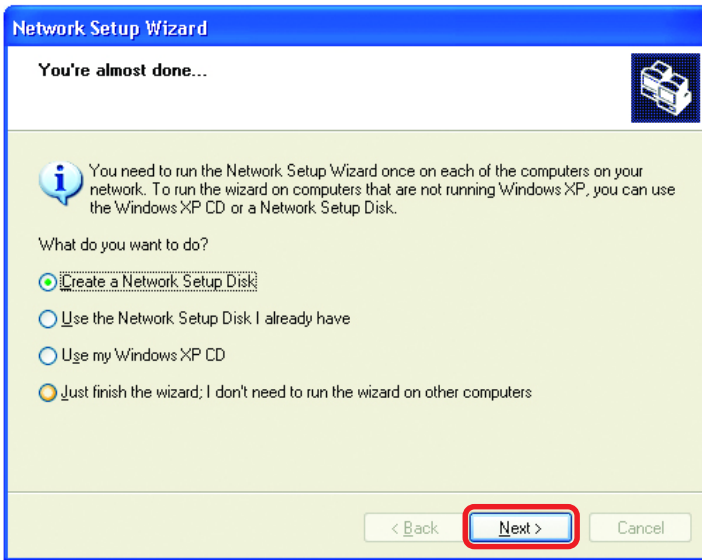Please wait while the **Network Setup Wizard** applies the changes.

When the changes are complete, click **Next**.

Please wait while the **Network Setup Wizard** configures the computer. This may take a few minutes.
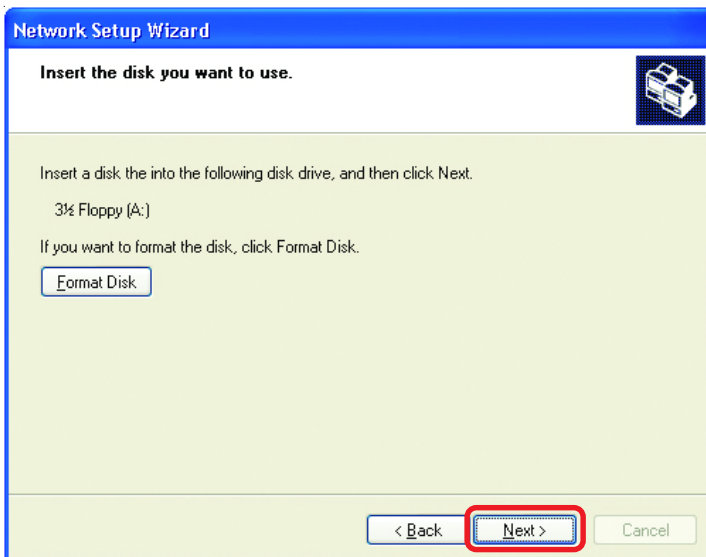
Networking Basics

In the window below, select the option that fits your needs. 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.**

Click **Next**.

Networking Basics

Please wait while the **Network Setup 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.**
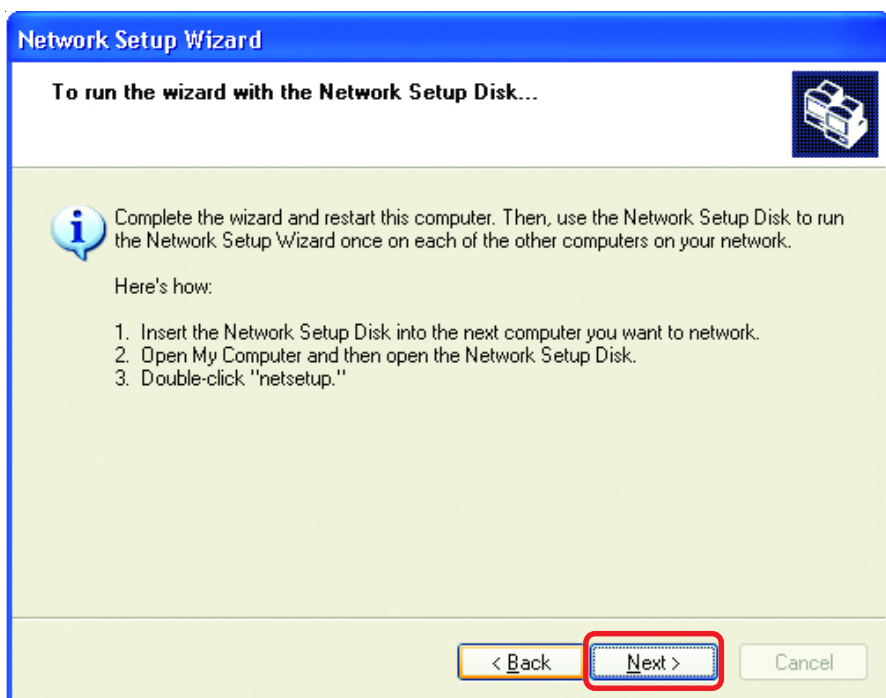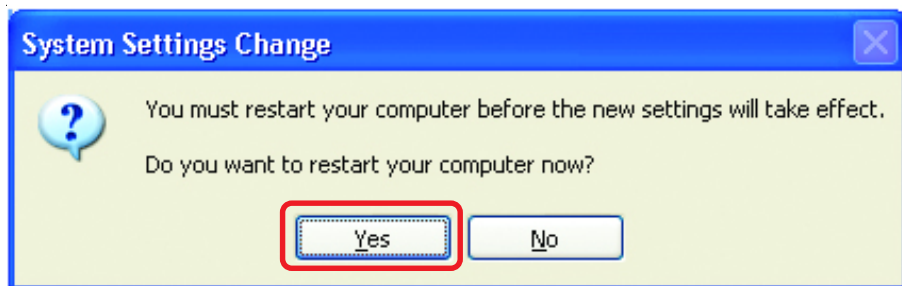
Networking Basics

Please read the information on this screen, then click **Finish** to complete the **Network Setup Wizard**.
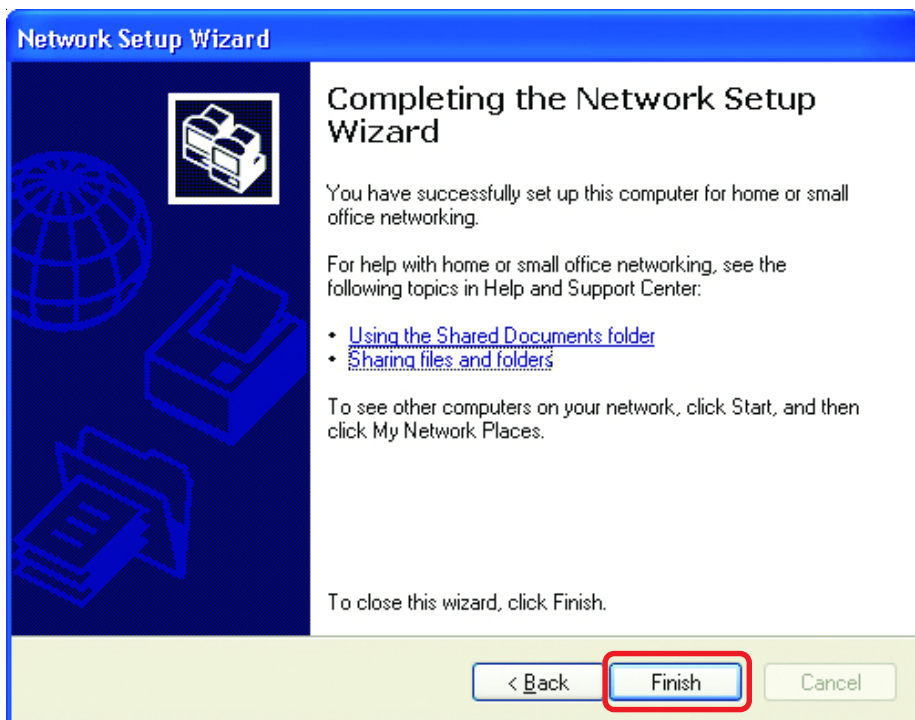
The new settings will take effect when you restart the computer. Click **Yes** to restart the computer.


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.

Networking Basics
Naming your Computer

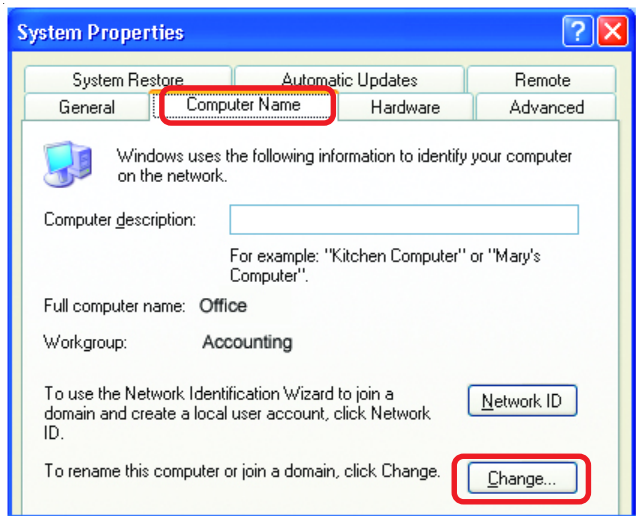To name your computer, please follow these directions:In **Windows XP**:

- ■ Click **Start** (in the lower left corner of the screen)

- ■ **Right-click** on **My Computer**

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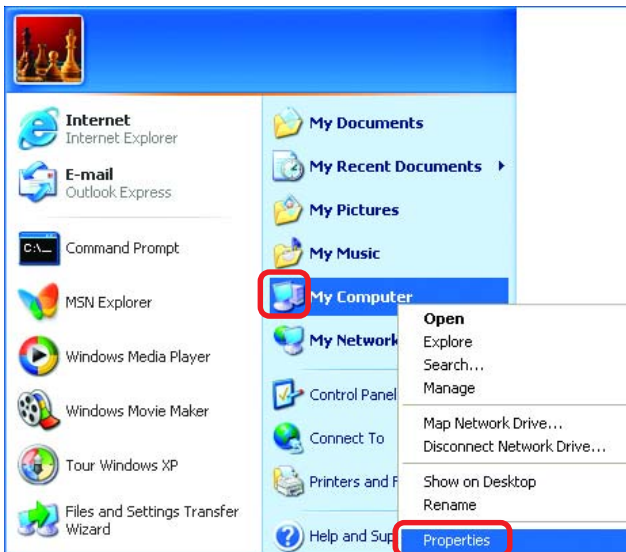
- ■ Select the **Computer Name Tab** in the System Properties window.

- ■ You may enter a **Computer Description** if you wish; this field is optional.

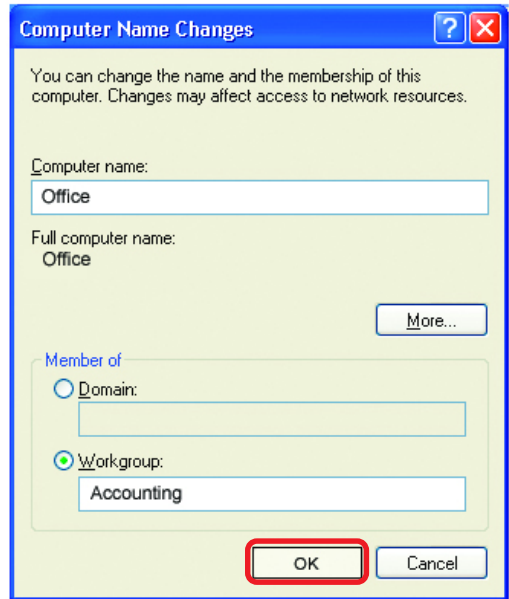- ■ To rename the computer and join a domain, Click **Change**.

Networking Basics
Naming your Computer

- ■ 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**

Computer Name Changes

You can change the name and the membership of this computer. Changes may affect access to network resources.

Computer name:
Office

Full computer name:
Office

More...

Member of

○ Domain:

⦿ Workgroup:
Accounting

OK   Cancel

Checking the IP Address in Windows XP

The wireless adapter-equipped computers in your network must be in the same IP Address range (see Getting Started in this manual for a definition of IP Address Range.) To check on the IP Address of the adapter, please do the following:

- ■ Right-click on the *Local Area Connection icon* in the task bar

Disable
Status
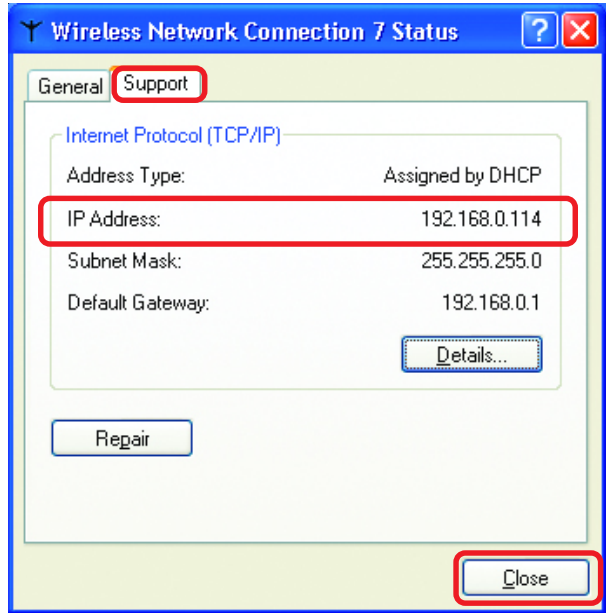Repair

View Available Wireless Networks

Open Network Connections

3:05 PM

- ■ Click on **Status**

Networking Basics
Checking the IP Address in <u>Windows XP</u>

This window will appear.

■ Click the **Support tab**

Wireless Network Connection 7 Status	
General Support	
Internet Protocol (TCP/IP)	
Address Type:	Assigned by DHCP
IP Address:	192.168.0.114
Subnet Mask:	255.255.255.0
Default Gateway:	192.168.0.1

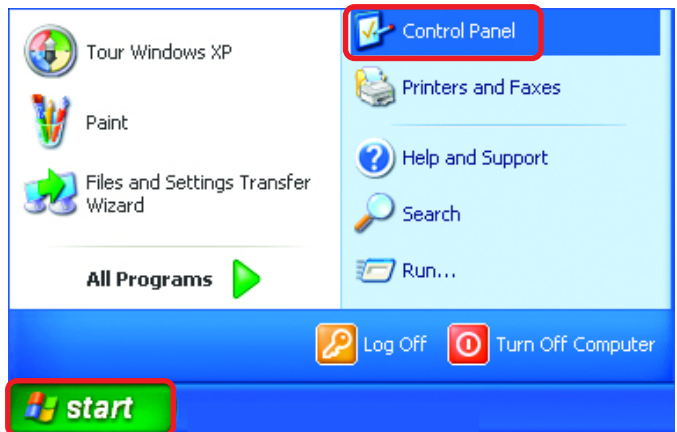[Details...]

■ Click **Close**

[Repair]   [Close]

Assigning a Static IP Address in <u>Windows XP/2000</u>

Note: Residential Gateways/Broadband Routers will automatically assign IP Addresses to the computers on the network, using DHCP (Dynamic Host Configuration Protocol) technology. If you are using a DHCP-capable Gateway/Router you will not need to assign Static IP Addresses.

If you are not using a DHCP capable Gateway/Router, or you need to assign a Static IP Address, please follow these instructions:
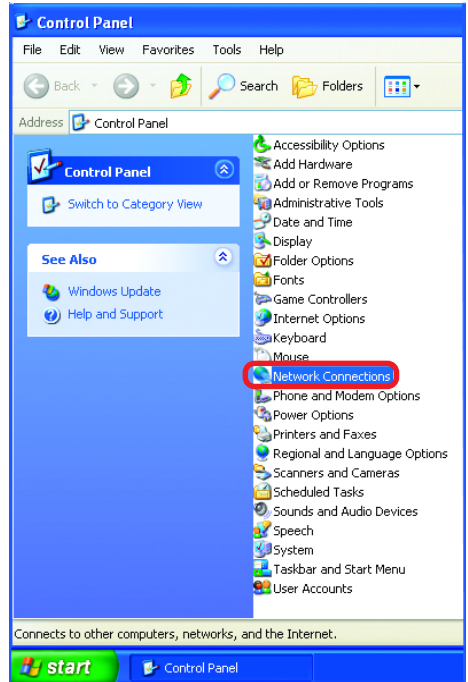
■ Go to **Start**

Tour Windows XP
Paint
Files and Settings Transfer Wizard

All Programs

Control Panel
Printers and Faxes
Help and Support
Search
Run...

■ Double-click on **Control Panel**

Log Off   Turn Off Computer

start

■ Double-click on
**Network
Connections**

■ Right-click on **Local Area
Connections**

■ Double-click on
Properties
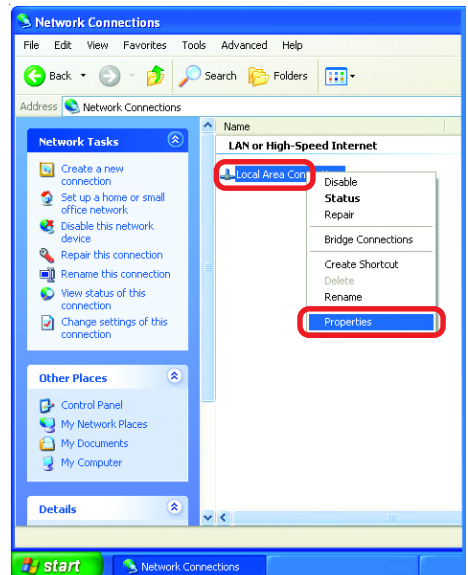
Networking Basics
Assigning a Static IP Address in <u>Windows XP/2000</u>

■ Click on **Internet Protocol (TCP/IP)**

■ Click **Properties**

■ Input your **IP address and subnet mask.** (The IP Addresses on your network must be within the same range. For example, if one computer has an IP Address of 192.168.0.2, the other computers should have IP Addresses that are sequential, like 192.168.0.3 and 192.168.0.4. The subnet mask must be the same for all the computers on the network.)

■ **Select Use the following IP address** in the **Internet Protocol (TCP/IP) Properties** window *(shown below)*

■ Input your **DNS server addresses. (Note: If you are entering a DNS server, you must enter the IP Address of the Default Gateway.)**

The DNS server information will be supplied by your ISP (Internet Service Provider.)
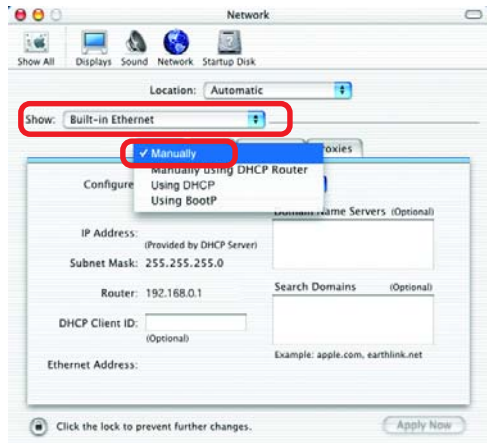
■ Click **OK**

50
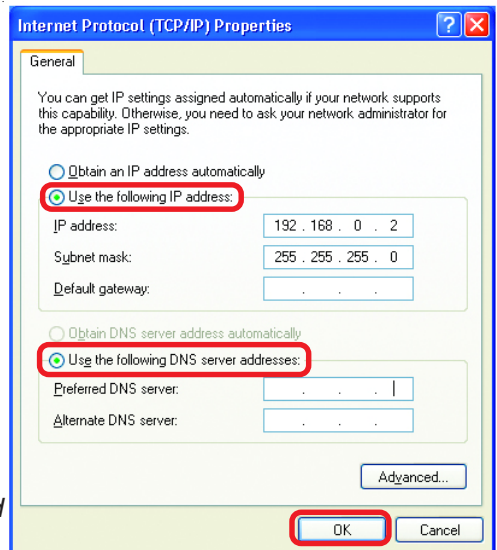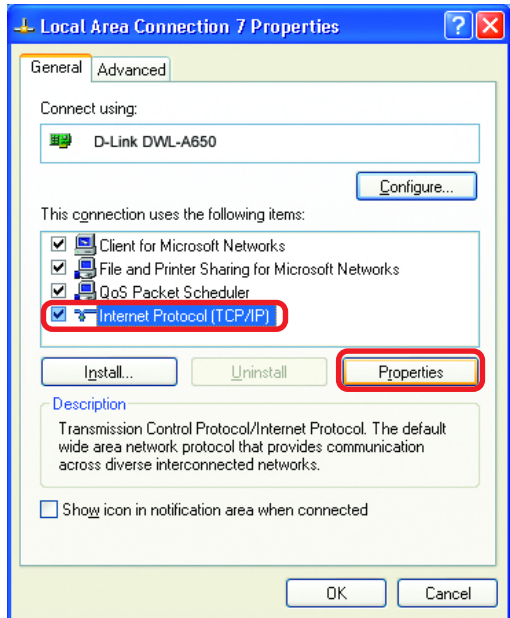
Networking Basics
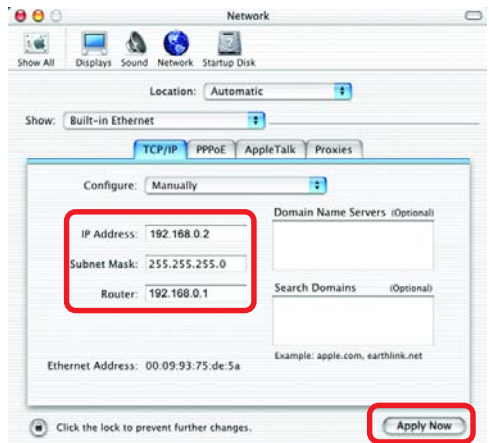### *Assigning a Static IP Address with <u>Macintosh OSX</u>*

■ Go to the **Apple Menu** and se-
   lect **System Preferences**

■ Click on **Network**

■ Select **Built-in Ethernet** in the
   Show pull-down menu

■ Select **Manually** in the **Con-
   figure** pull-down menu

■ Input the **Static IP Address**,
   the **Subnet Mask** and the
   Router IP Address in the ap-
   propriate fields

■ Click **Apply Now**
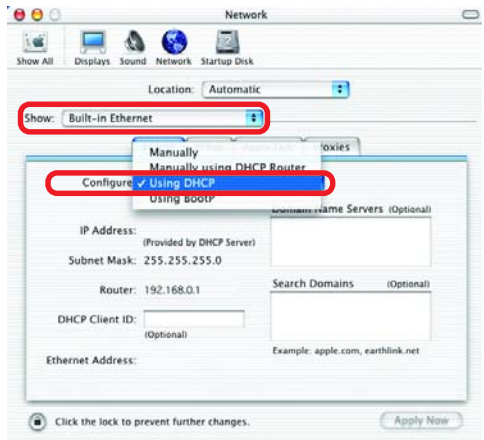
Networking Basics
Selecting a Dynamic IP Address with <u>Macintosh OSX</u>

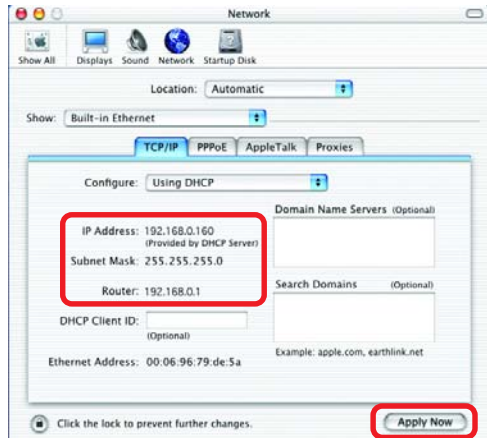- Go to the **Apple Menu** and select **System Preferences**

- Click on **Network**

- Select **Built-in Ethernet** in the **Show** pull-down menu

- Select **Using DHCP** in the **Configure** pull-down menu
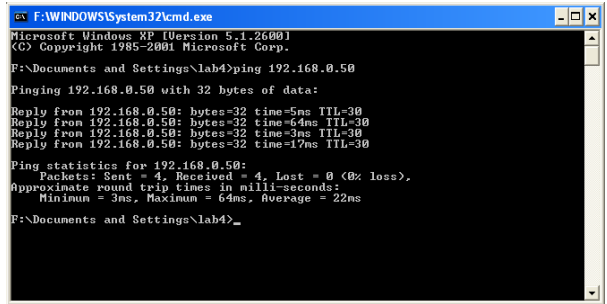
- Click **Apply Now**

- The **IP Address, Subnet mask**, and the **Router's IP Address** will appear in a few seconds

Networking Basics
Checking the Wireless Connection by <u>Pinging in Windows XP and 2000</u>

■ Go to **Start** > **Run** > type **cmd**. A window similar to this one will appear. Type **ping xxx.xxx.xxx.xxx**, where **xxx** is the **IP Address** of the Wireless Router or Access Point. A good wireless connection will show four replies from the Wireless Router or Acess Point, as shown.

```
F:\WINDOWS\System32\cmd.exe

Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

F:\Documents and Settings\lab4>ping 192.168.0.50

Pinging 192.168.0.50 with 32 bytes of data:

Reply from 192.168.0.50: bytes=32 time=5ms TTL=30
Reply from 192.168.0.50: bytes=32 time=64ms TTL=30
Reply from 192.168.0.50: bytes=32 time=3ms TTL=30
Reply from 192.168.0.50: bytes=32 time=17ms TTL=30

Ping statistics for 192.168.0.50:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 3ms, Maximum = 64ms, Average = 22ms

F:\Documents and Settings\lab4>
```
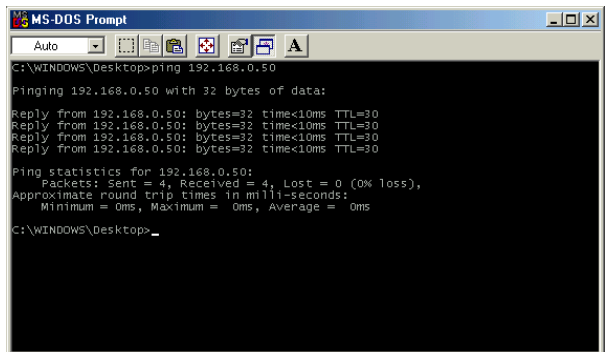
Checking the Wireless Connection by <u>Pinging in Windows Me and 98</u>

■ Go to **Start** > **Run** > type **command**. A window similar to this will appear. Type **ping xxx.xxx.xxx.xxx** where **xxx** is the **IP Address** of the Wireless Router or Access Point. A good wireless connection will show four replies from the wireless router or access point, as shown.

```
MS-DOS Prompt

C:\WINDOWS\Desktop>ping 192.168.0.50

Pinging 192.168.0.50 with 32 bytes of data:

Reply from 192.168.0.50: bytes=32 time<10ms TTL=30
Reply from 192.168.0.50: bytes=32 time<10ms TTL=30
Reply from 192.168.0.50: bytes=32 time<10ms TTL=30
Reply from 192.168.0.50: bytes=32 time<10ms TTL=30

Ping statistics for 192.168.0.50:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\WINDOWS\Desktop>
```