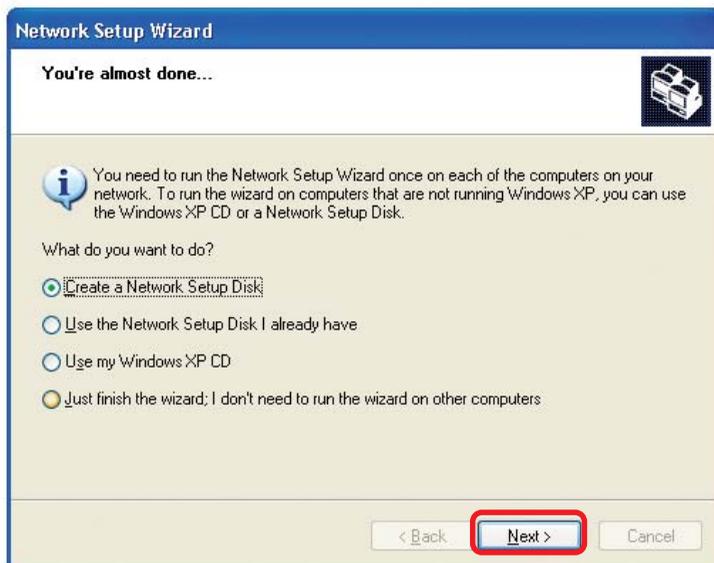


## Networking Basics

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**.



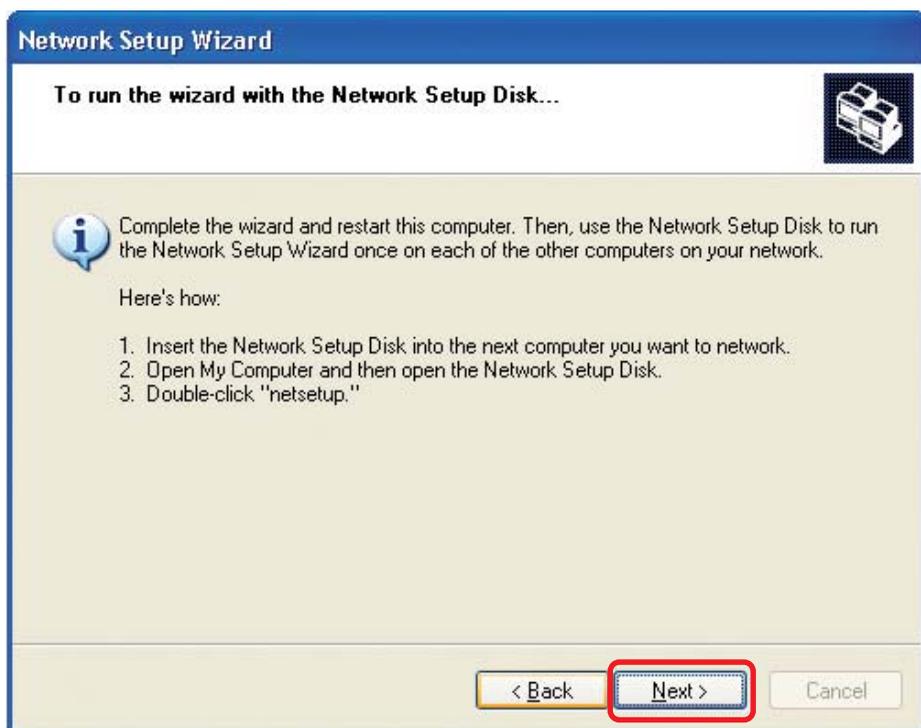
Insert a disk into the Floppy Disk Drive, in this case drive **A**.



## Networking Basics

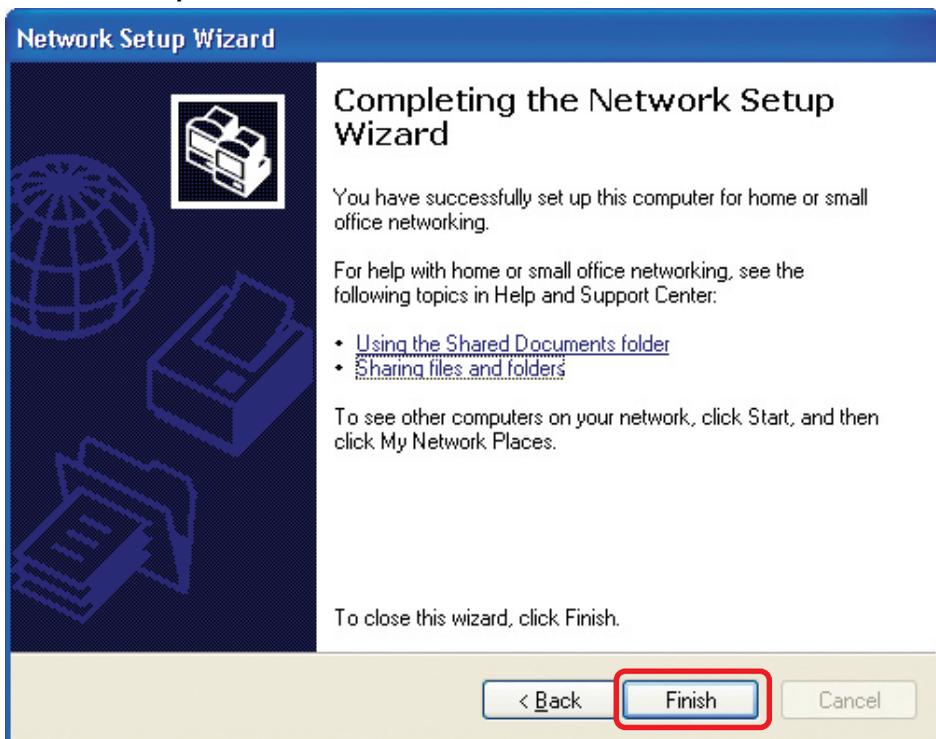


Please read the information under **Here's how** in the screen below. After you complete the **Network Setup Wizard** you will use the **Network Setup Disk** to run the **Network Setup Wizard** once on each of the computers on your network. To continue click **Next**.



## 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.



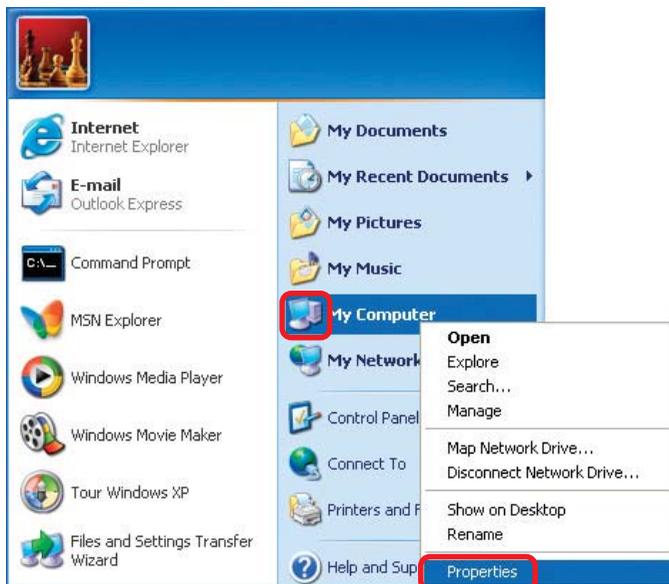
You have completed configuring this computer. Next, you will need to run the **Network Setup Disk** on all the other computers on your network. After running the **Network Setup Disk** on all your computers, your new wireless network will be ready to use.

## Networking Basics

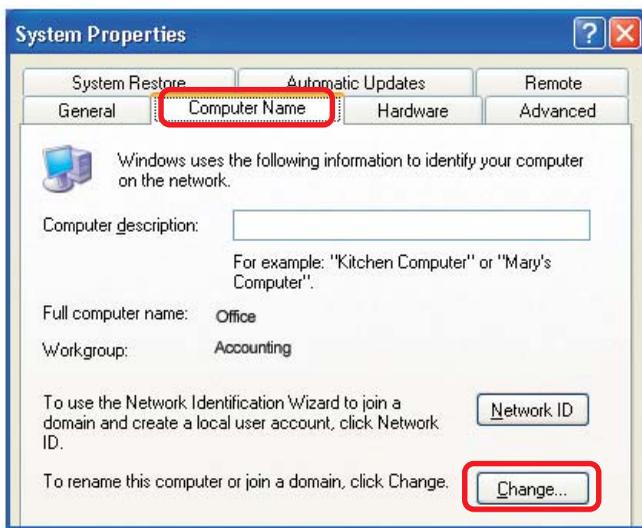
### Naming your Computer

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.

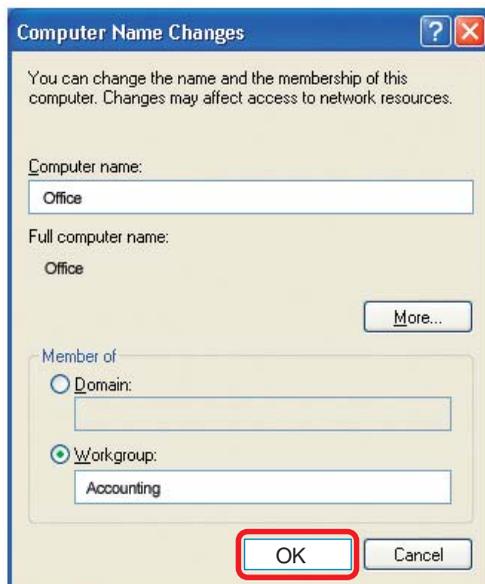


- You may enter a **Computer Description** if you wish; this field is optional.
- To rename the computer and join a domain, Click **Change**.

## Networking Basics

### Naming your Computer

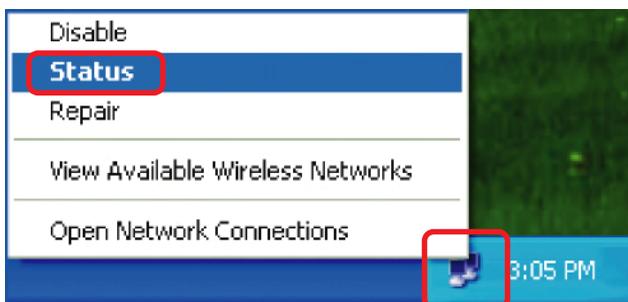
- In this window, enter the **Computer name**.
- Select **Workgroup** and enter the name of the **Workgroup**.
- All computers on your network must have the same **Workgroup** name.
- Click **OK**.



### 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.
- Click on **Status**.

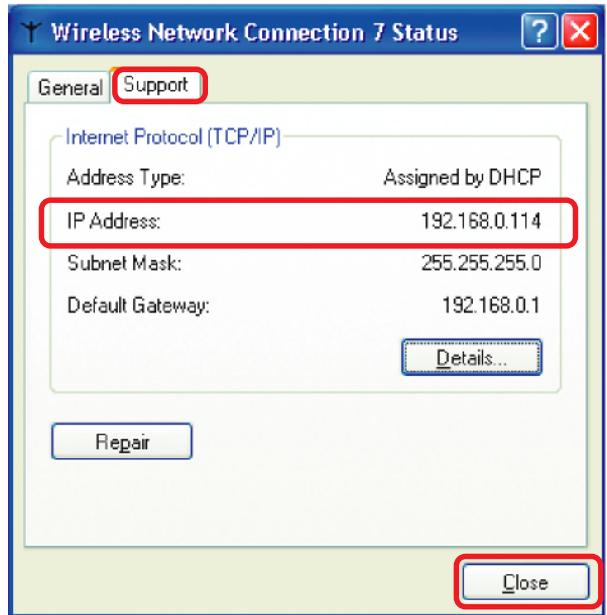


## Networking Basics

### Checking the IP Address in Windows XP

This window will appear.

- Click the **Support** tab.
- Click **Close**.

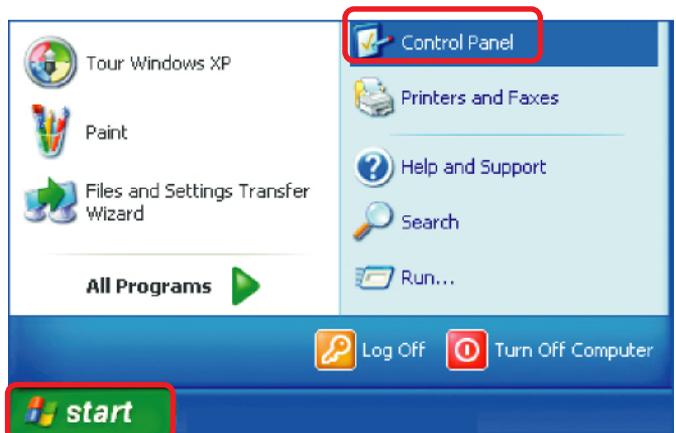


### Assigning a Static IP Address in Windows XP/2000

*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:

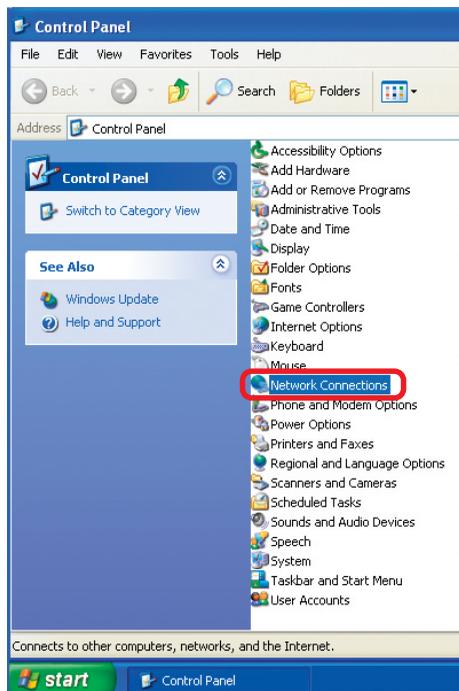
- Go to **Start**.
- Double-click on **Control Panel**.



## Networking Basics

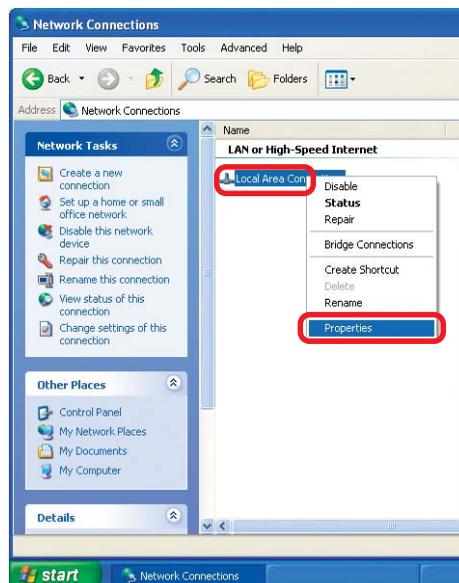
### Assigning a Static IP Address in Windows XP/2000

- Double-click on **Network Connections**.



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

- Single-click on **Properties**.



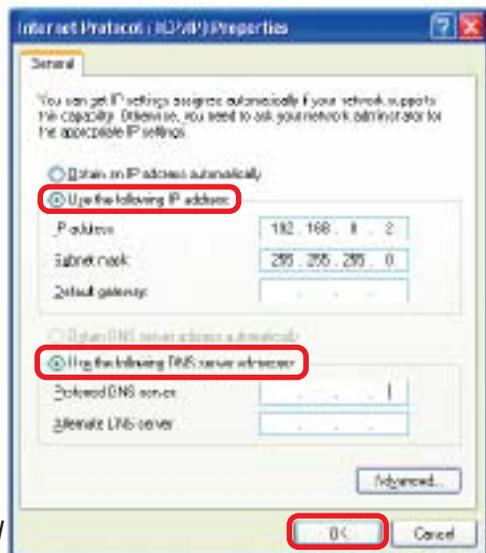
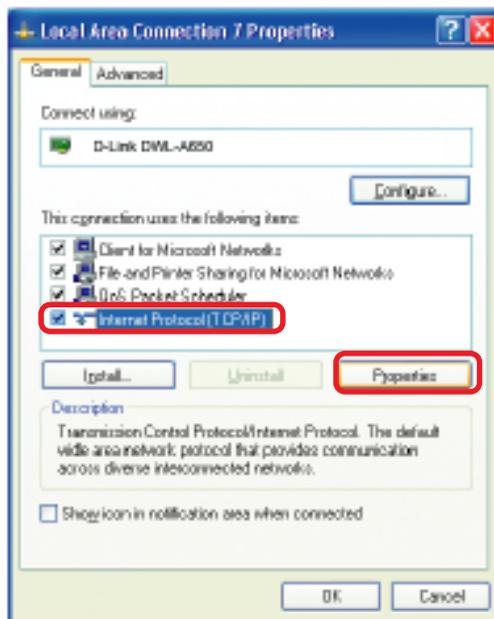
## Networking Basics

### Assigning a Static IP Address in Windows XP/2000

- 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.)
- 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**.



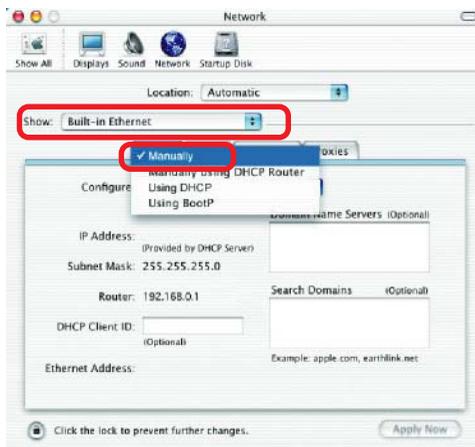
# Networking Basics

## Assigning a Static IP Address with Macintosh OSX

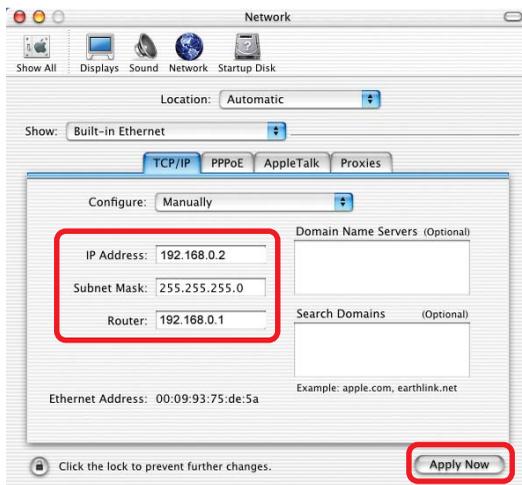
- Go to the **Apple Menu** and select **System Preferences**.
- Click on **Network**.



- Select **Built-in Ethernet** in the **Show** pull-down menu.
- Select **Manually** in the **Configure** pull-down menu.



- Input the **Static IP Address**, the **Subnet Mask** and the **Router IP Address** in the appropriate fields.



- Click **Apply Now**.

## Networking Basics

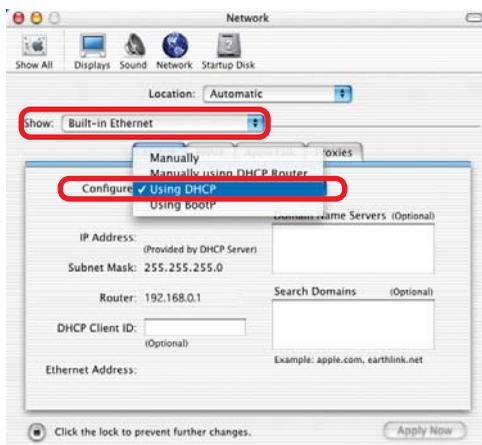
### Selecting a Dynamic IP Address with Macintosh OSX

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



- Click on **Network**.

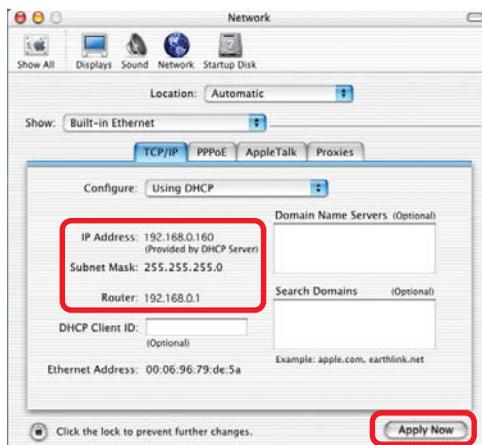
- Select **Built-in Ethernet** in the **Show** pull-down menu.



- Select **Using DHCP** in the **Configure** pull-down menu.

- Click **Apply Now**.

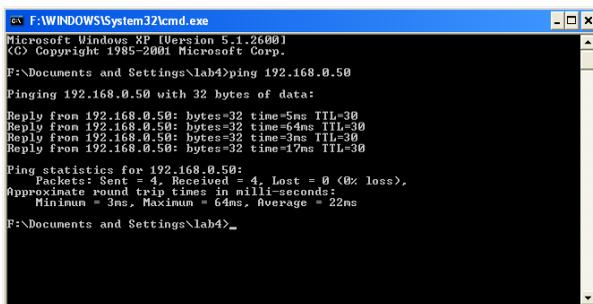
- The **IP Address**, **Subnet mask**, and the **Router's IP Address** will appear in a few seconds.



## Networking Basics

### Checking the Wireless Connection by Pinging in Windows XP and 2000

- 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 Access Point, as shown.



```
ex 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:

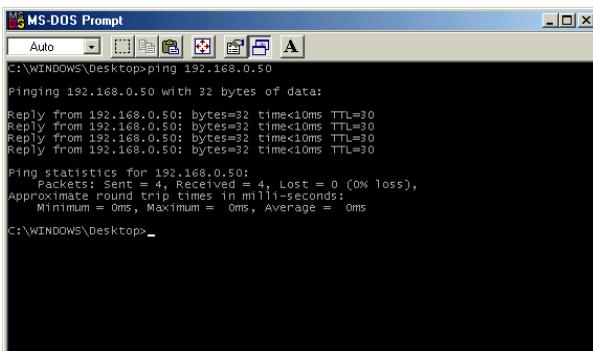
Reply from 192.168.0.50: bytes=32 time=5ms TTL=30
Reply from 192.168.0.50: bytes=32 time=64ms TTL=30
Reply from 192.168.0.50: bytes=32 time=3ms TTL=30
Reply from 192.168.0.50: bytes=32 time=17ms TTL=30

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 Pinging in Windows Me and 98

- 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
Auto
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

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>
```

## Networking Basics

### ***Adding and Sharing Printers in Windows XP***

After you have run the **Network Setup Wizard** on all the computers in your network (please see the **Network Setup Wizard** section at the beginning of **Networking Basics**), you can use the **Add Printer Wizard** to add or share a printer on your network.

Whether you want to add a **local printer** (a printer connected directly to one computer), share an **LPR printer** (a printer connected to a print server), or share a **network printer** (a printer connected to your network through a Gateway/Router), use the **Add Printer Wizard**. Please follow the directions below:

***First, make sure that you have run the Network Setup Wizard on all of the computers on your network.***

On the following pages, we will show you these 3 ways to use the **Add Printer Wizard**:

- 1. Adding a local printer**
- 2. Sharing an network printer**
- 3. Sharing an LPR printer**

#### ***(Other Networking Tasks)***

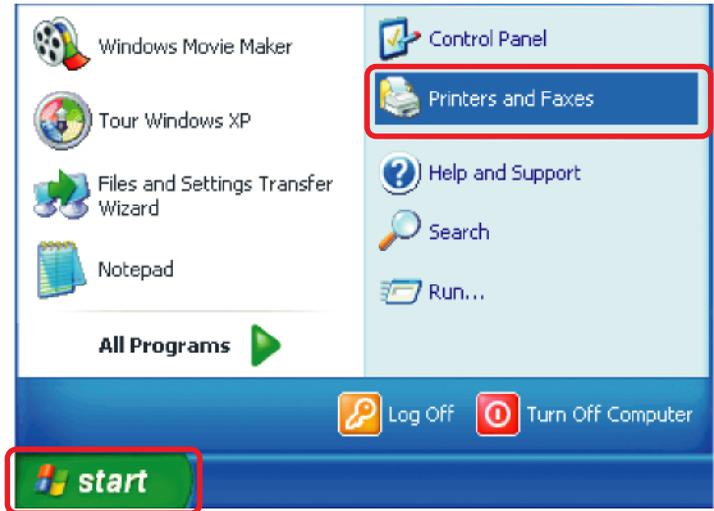
For help with other tasks, that we have not covered here, in home or small office networking, see **Using the Shared Documents** folder and **Sharing files and folders** in the **Help and Support Center** in Microsoft **Windows XP**.

## Networking Basics

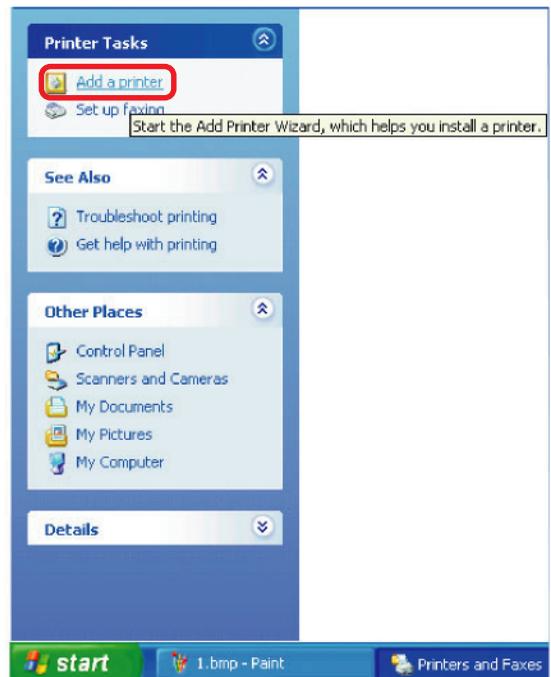
### *Adding a local printer (a printer connected directly to a computer)*

A printer that is not shared on the network and is connected directly to one computer is called a **local printer**. If you do not need to share your printer on a network, follow these directions to add the printer to one computer.

- Go to **Start > Printers and Faxes**



- Click on **Add a printer.**



# Networking Basics

## Adding a local printer

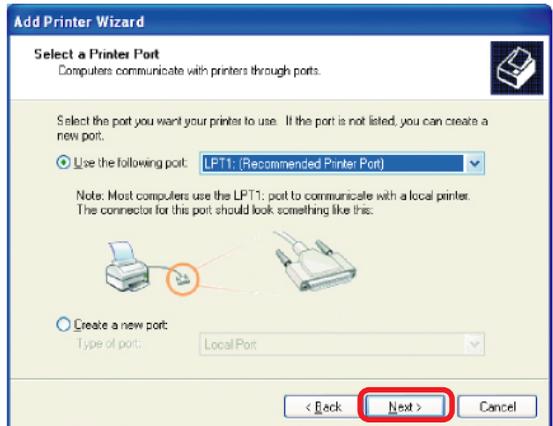
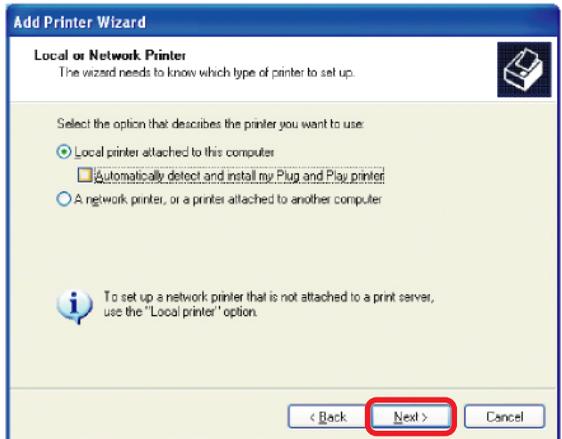
- Click **Next**.
- Select **Local printer attached to this computer**.
- *(Deselect **Automatically detect and install my Plug and Play printer** if it has been selected.)*



- Click **Next**.
- Select **Use the following port**:
- From the pull-down menu **select the correct port** for your printer.

*(Most computers use the **LPT1:** port, as shown in the illustration.)*

- Click **Next**.



## Networking Basics

### Adding a local printer

- Select and highlight the **correct driver** for your printer.

- Click **Next**.

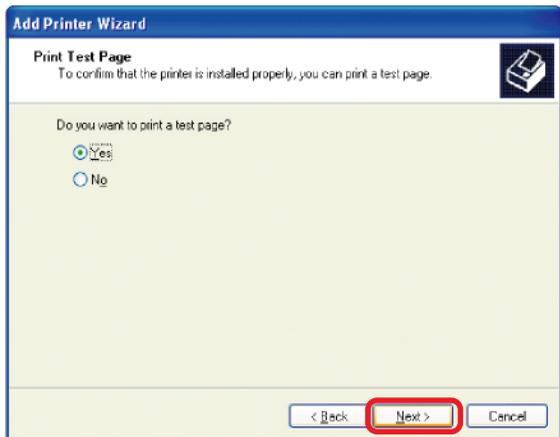
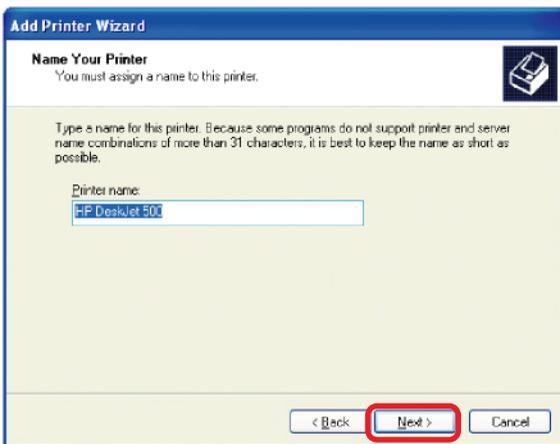
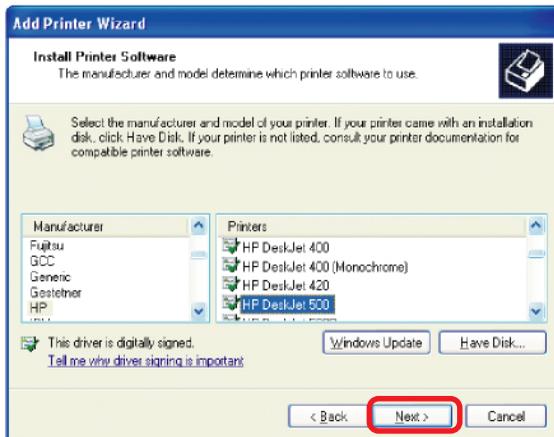
*(If the correct driver is not displayed, insert the CD or floppy disk that came with your printer and click **Have Disk**.)*

- At this screen, you can change the name of the printer (optional).

- Click **Next**.

- Select **Yes**, to print a test page. A successful printing will confirm that you have chosen the correct driver.

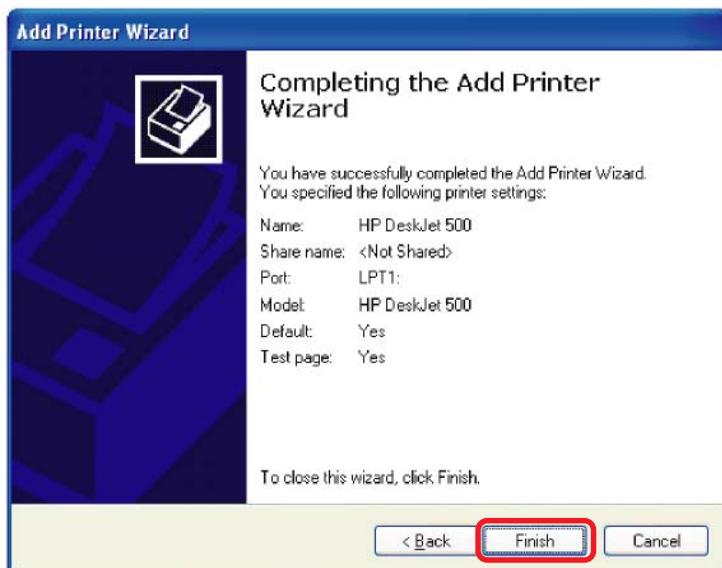
- Click **Next**.



## Networking Basics

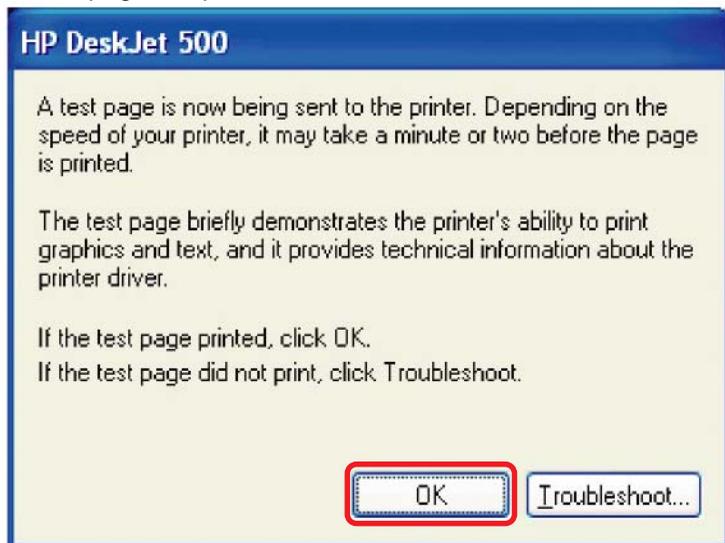
### Adding a local printer

This screen gives you information about your printer.



Click **Finish**.

When the test page has printed,



Click **OK**.

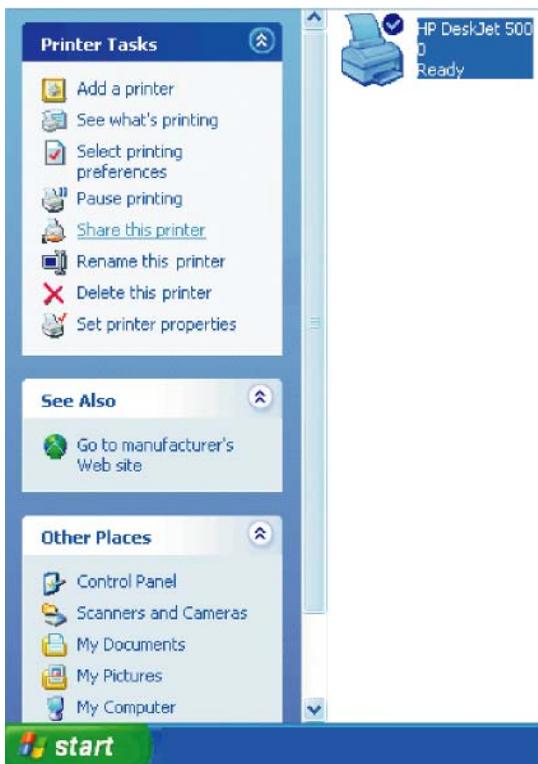
## Networking Basics

### Adding a local printer

- Go to **Start > Printers and Faxes**.

*A successful installation will display the printer icon as shown at right.*

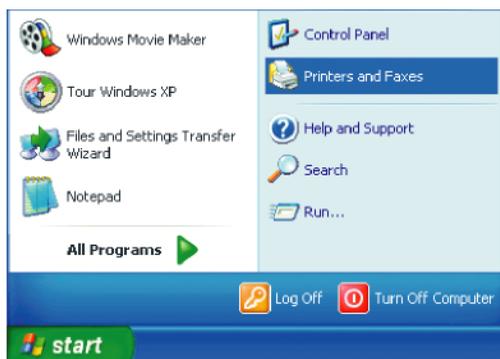
You have successfully added a local printer.



### Sharing a network printer

After you have run the **Network Setup Wizard** on all the computers on your network, you can run the **Add Printer Wizard** on all the computers on your network. Please follow these directions to use the **Add Printer Wizard** to share a printer on your network:

- Go to **Start > Printers and Faxes**



## Networking Basics

### Sharing a network printer

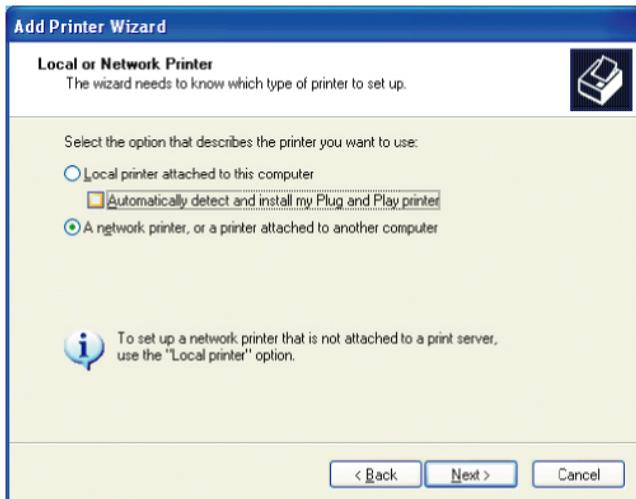
- Click on **Add a printer.**



- Click **Next.**



- Select **Network Printer.**



- Click **Next.**

## Networking Basics

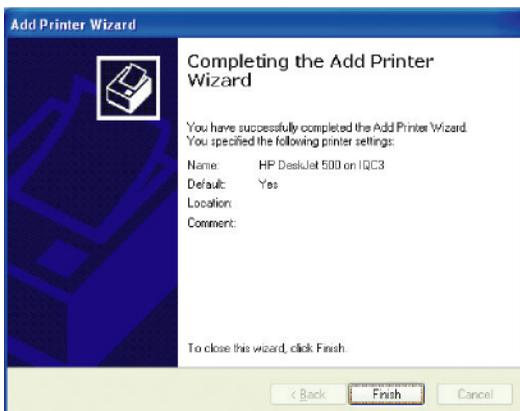
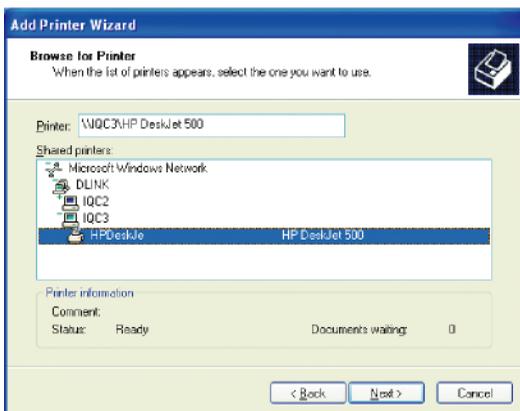
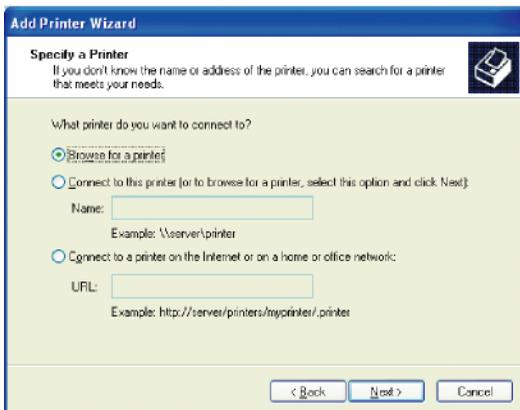
### Sharing a network printer

- Select **Browse for a printer** for a printer.

- Click **Next**.

- Select the **printer** you would like to share.

- Click **Next**.

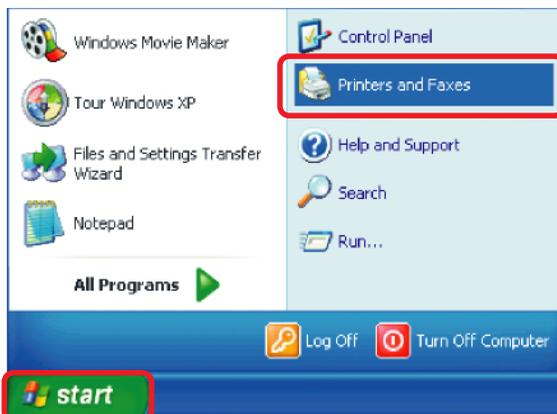


- Click **Finish**.

## Networking Basics

### Sharing a network printer

- To check for proper installation:
- Go to **Start > Printers and Faxes**.



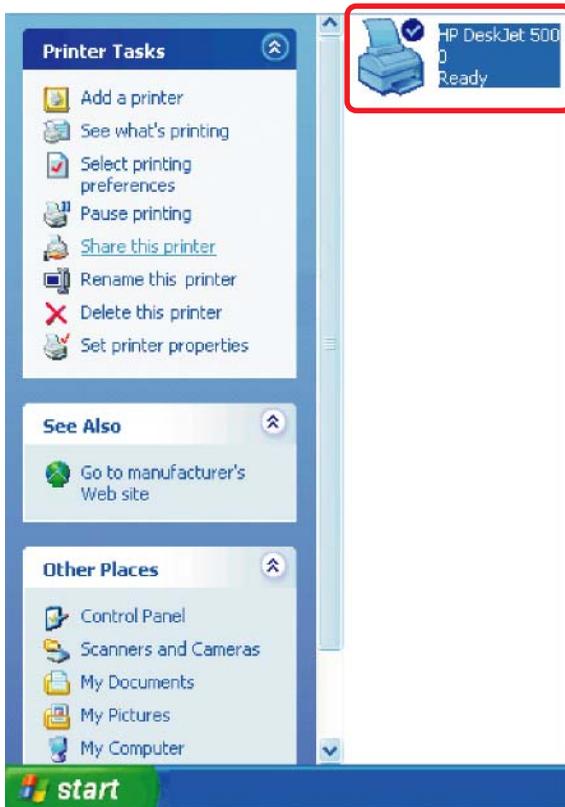
*The printer icon will appear at right, indicating proper installation.*

**You have completed adding the printer.**

*To share this printer on your network:*

- Remember the **printer name**.
- Run the **Add Printer Wizard** on all the computers on your network.
- Make sure you have already run the **Network Setup Wizard** on all the network computers.

After you run the **Add Printer Wizard** on all the computers in the network, you can share the printer.



## Networking Basics

### Sharing an LPR printer

To share an **LPR printer** (using a print server,) you will need a Print Server such as the **DP-101P+**. Please make sure that you have run the **Network Setup Wizard** on all the computers on your network. To share an **LPR printer**, please follow these directions:

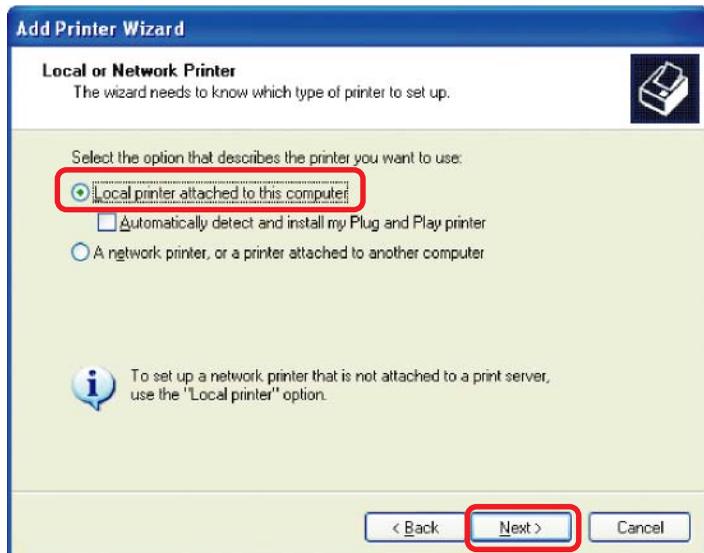
- Go to **Start > Printers and Faxes**.
- Click on **Add a Printer**.

The screen to the right will appear.



- Click **Next**.

- Select **Local Printer**.



- Click **Next**.

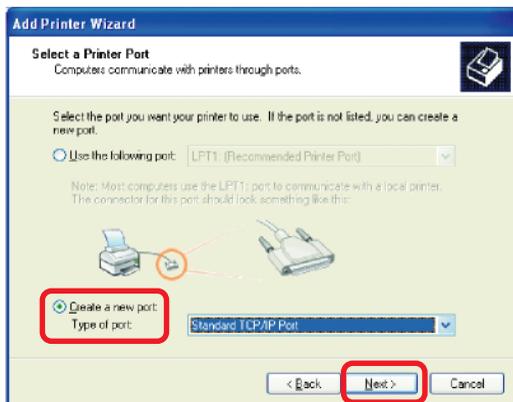
## Networking Basics

### Sharing an LPR printer

- Select **Create a new port**.

- From the pull-down menu, select **Standard TCP/IP Port**, as shown.

- Click **Next**.



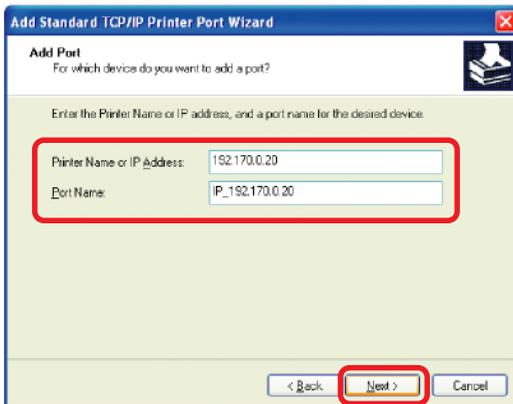
- Please read the instructions on this screen.

- Click **Next**.



- Enter the **Printer IP Address** and the **Port Name**, as shown.

- Click **Next**.



## Networking Basics

### Sharing an LPR printer

- In this screen, select **Custom**.

- Click **Settings**.

**Add Standard TCP/IP Printer Port Wizard**

**Additional Port Information Required**  
The device could not be identified.

The detected device is of unknown type. Be sure that:

1. The device is properly configured.
2. The address on the previous page is correct.

Either correct the address and perform another search on the network by returning to the previous wizard page or select the device type if you are sure the address is correct.

Device Type

Standard Generic Network Card

Custom **Settings...**

< Back Next > Cancel

- Enter the **Port Name** and the **Printer Name** or **IP Address**.

- Select **LPR**.

- Enter a **Queue Name** (if your Print-Server/ Gateway has more than one port, you will need a **Queue name**).

- Click **OK**.

**Configure Standard TCP/IP Port Monitor**

Port Settings

Port Name: IP\_192.170.0.20

Printer Name or IP Address: 192.170.0.20

Protocol

Raw  LPR

Raw Settings

Port Number: 9100

LPR Settings

Queue Name: lp

LPR Byte Counting Enabled

SNMP Status Enabled

Community Name: public

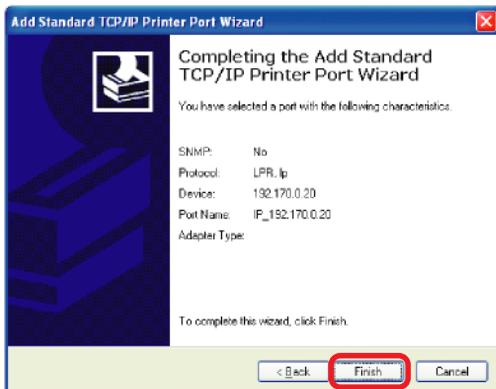
SNMP Device Index: 1

OK Cancel

## Networking Basics

### Sharing an LPR printer

- This screen will show you information about your printer.



- Click **Finish**.

- Select the **printer** you are adding from the list of **Printers**.

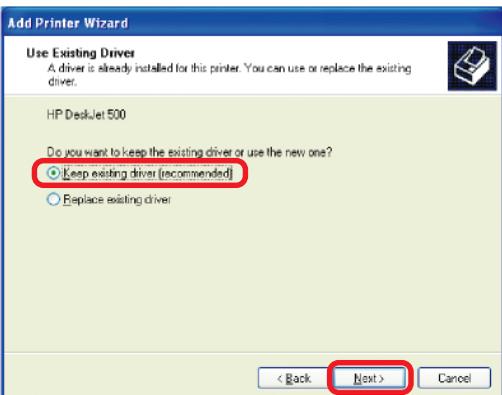


- Insert the printer driver disk that came with your printer.

- Click **Have Disk**.

If the printer driver is already installed, do the following:

- Select **Keep existing driver**.

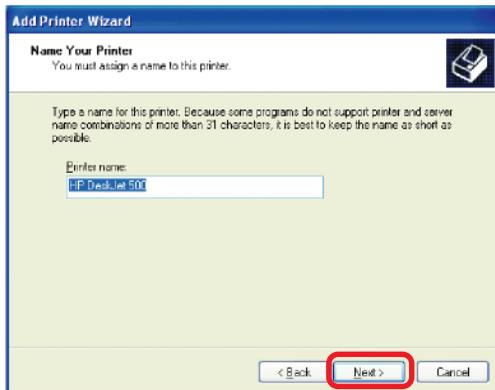


- Click **Next**.

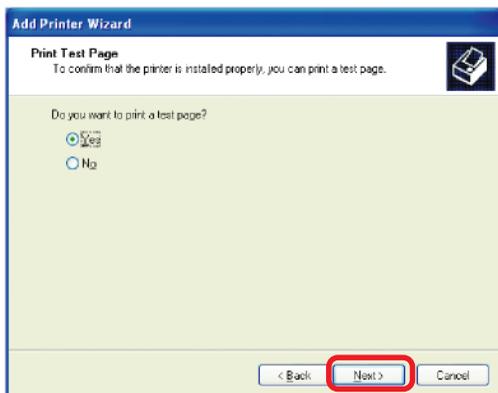
## Networking Basics

### Sharing an LPR printer

- You can rename your printer if you choose. It is optional.
- *Please remember the name of your printer. You will need this information when you use the **Add Printer Wizard** on the other computers on your network.*
- Click **Next**.

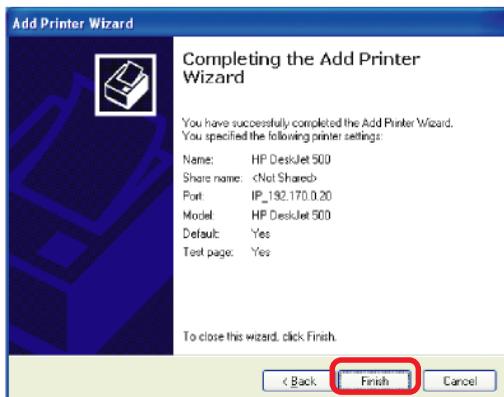


- Select **Yes**, to print a test page.
- Click **Next**.



*This screen will display information about your printer.*

- Click **Finish** to complete the addition of the printer.
- Please run the **Add Printer Wizard** on all the computers on your network in order to share the printer.



*Note: You must run the **Network Setup Wizard** on all the computers on your network before you run the **Add Printer Wizard**.*