

# Networking Basics

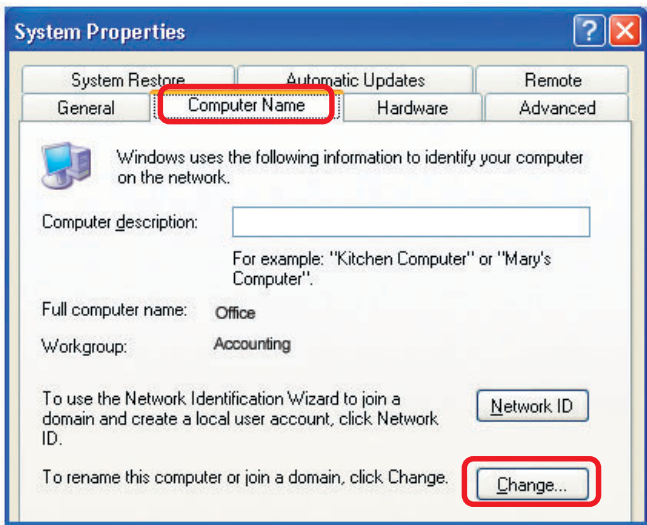
## Naming your Computer

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.

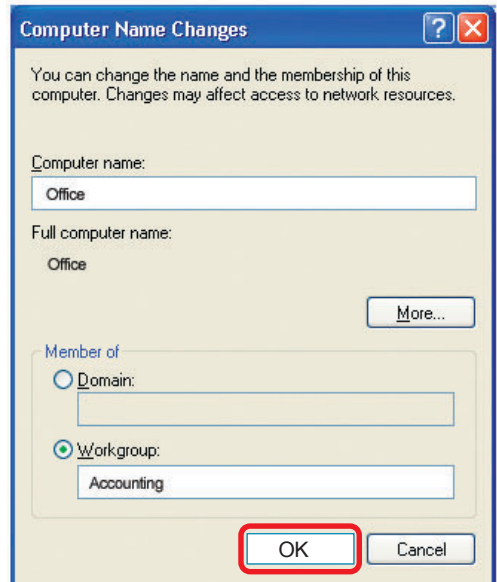


- You may enter a **Computer Description** if you wish; this field is optional.
- To rename the computer and join a domain, Click **Change**.

## 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**.



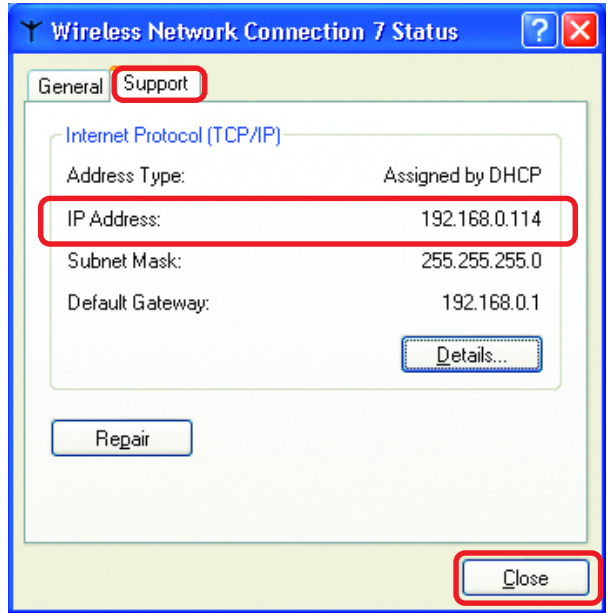
## Networking Basics

### Checking the IP Address in Windows XP

This window will appear.

- Click the **Support** tab.

- Click **Close**.



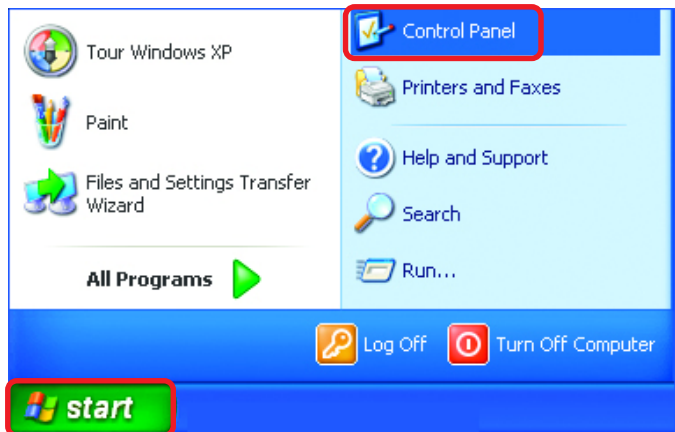
### Assigning a Static IP Address in Windows XP/2000

**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**.

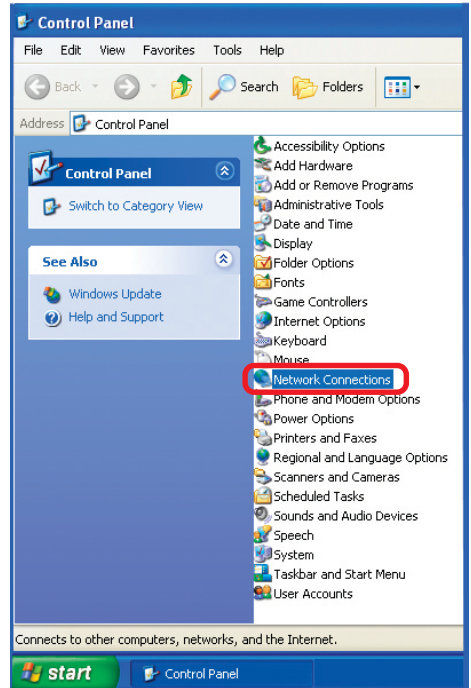
- Double-click on **Control Panel**.



# Networking Basics

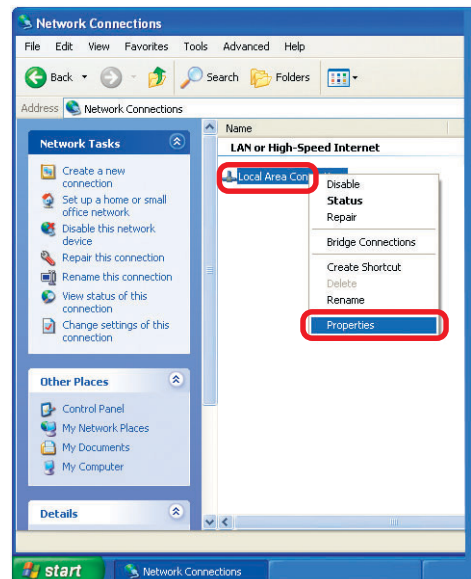
## Assigning a Static IP Address in Windows XP/2000

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



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

- Single-click on **Properties**.



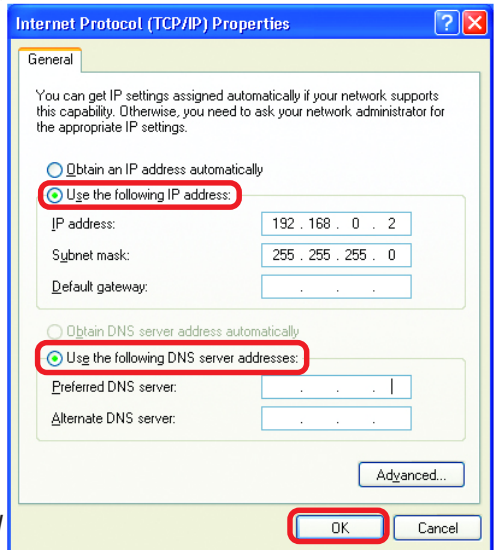
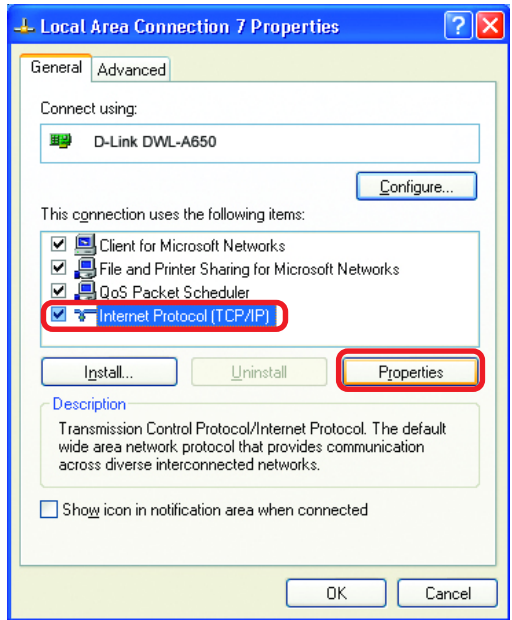
# Networking Basics

## 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).*

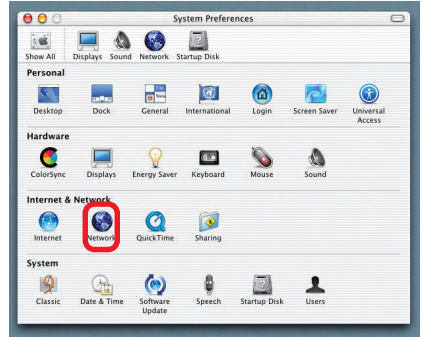
- Click **OK**.



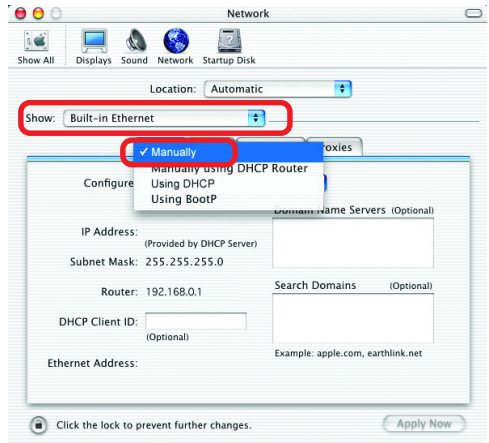
# Networking Basics

## Assigning a Static IP Address with Macintosh OSX

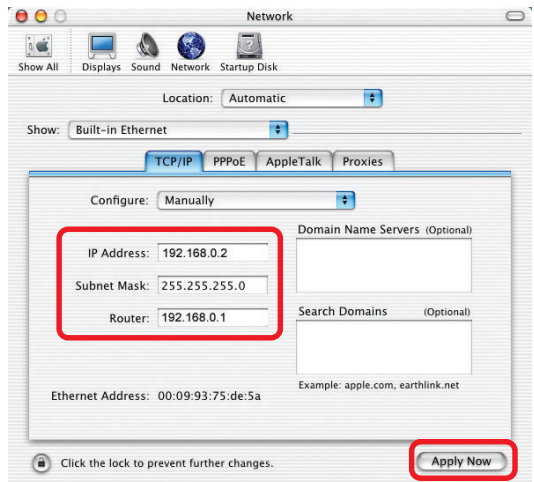
- Go to the **Apple Menu** and select **System Preferences**.
- Click on **Network**.



- 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.

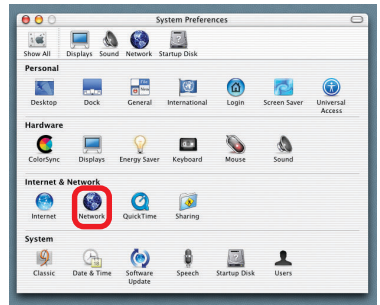


- Click **Apply Now**.

# Networking Basics

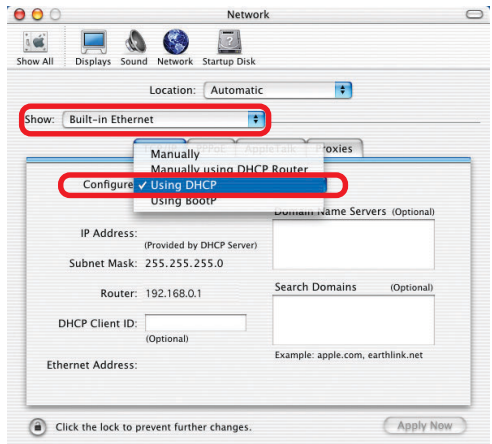
## Selecting a Dynamic IP Address with Macintosh OSX

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



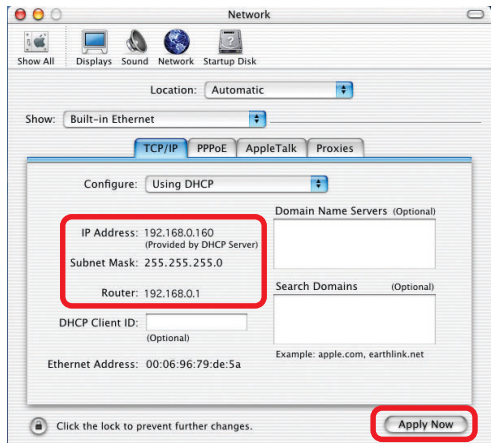
- Click on **Network**.

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



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

- Click **Apply Now**.

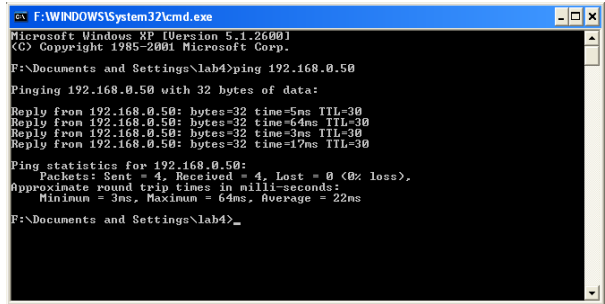


- The **IP Address**, **Subnet mask**, and the **Router's IP Address** will appear in a few seconds.

## Networking Basics

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

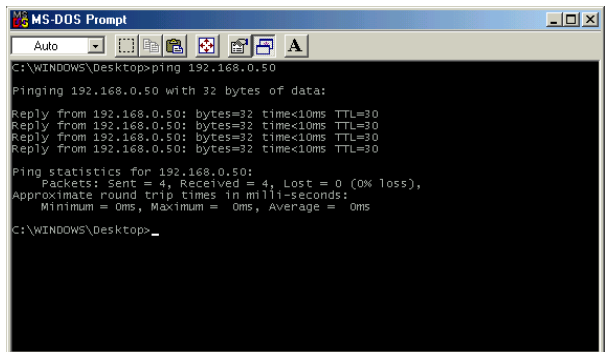
- Go to **Start > Run >** type **cmd**. A window similar to this one will appear. Type **ping xxx.xxx.xxx.xxx**, where **xxx** is the **IP Address** of the Wireless Router or Access Point. A good wireless connection will show four replies from the Wireless Router or Access Point, as shown.



```
cmd 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
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>_
```



## 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)***

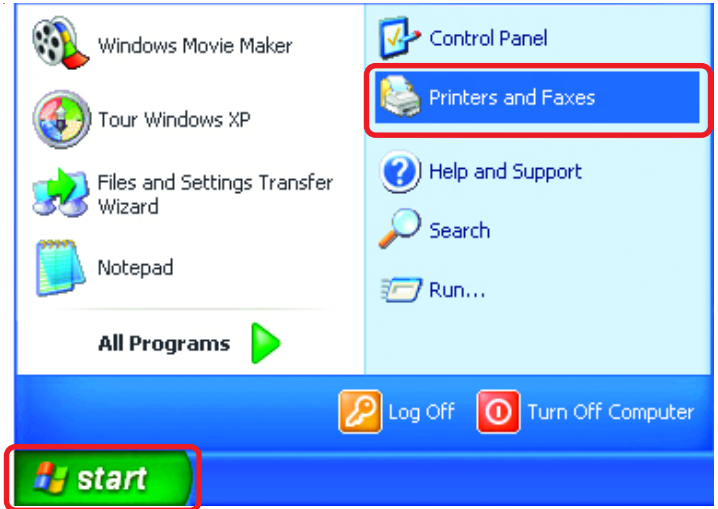
For help with other tasks, that we have not covered here, in home or small office networking, see **Using the Shared Documents** folder and **Sharing files and folders** in the **Help and Support Center** in Microsoft **Windows XP**.

## Networking Basics

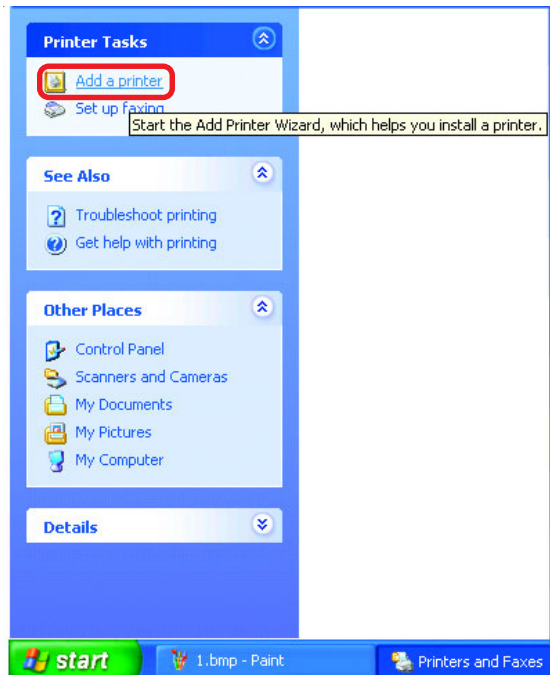
### Adding a local printer (a printer connected directly to a computer)

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.)*

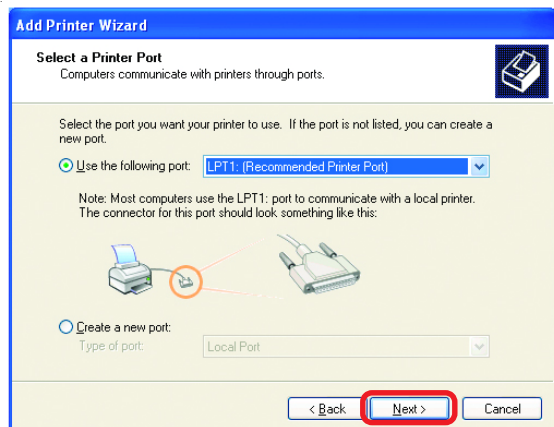
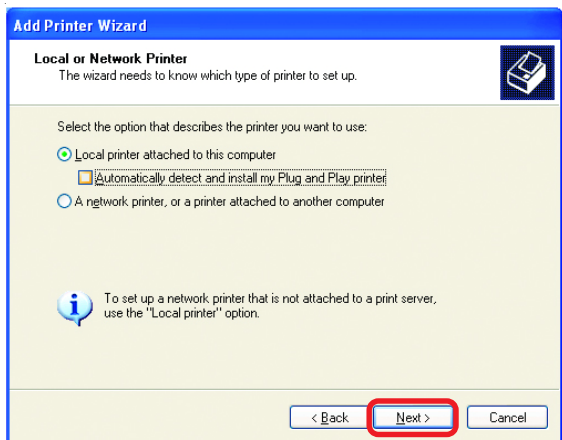
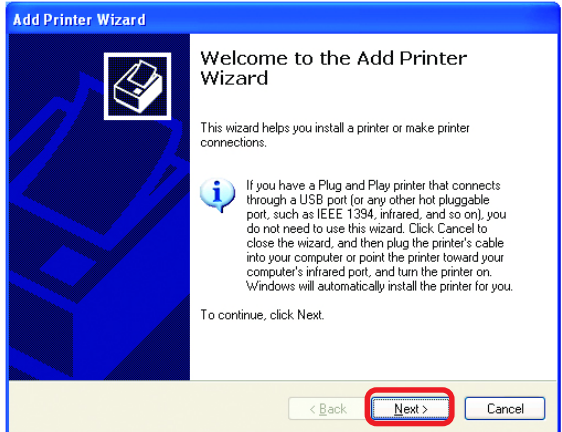
- Click **Next**.

- 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**.

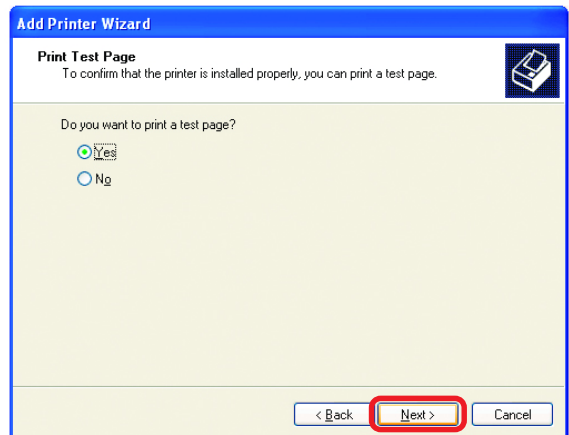
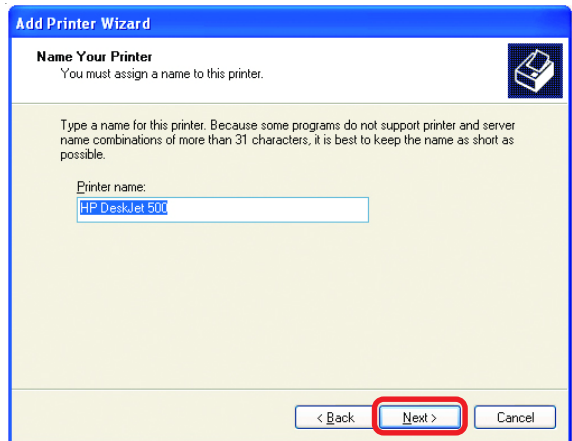
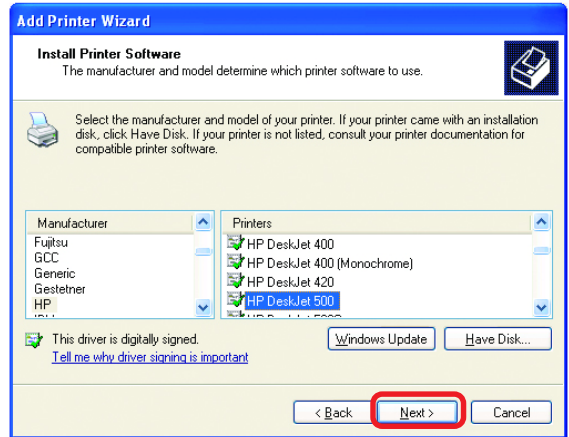
*(If the correct driver is not displayed, insert the CD or floppy disk that came with your printer and click **Have Disk**.)*

- 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.

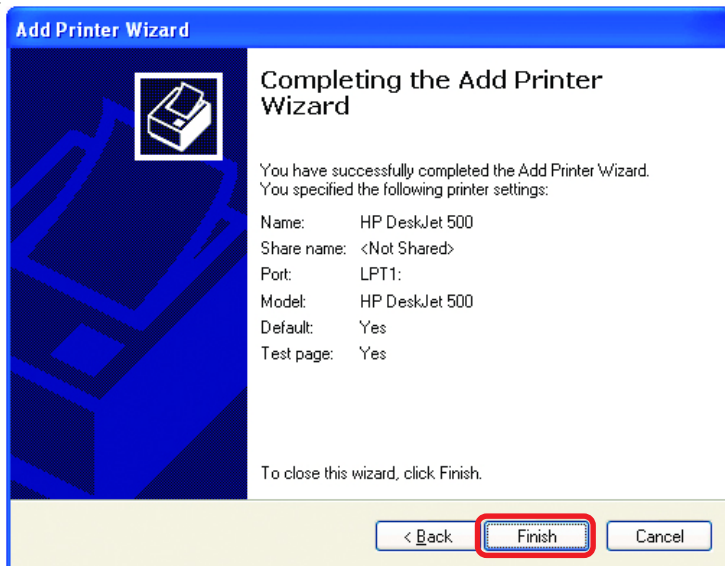
- Click **Next**.



## Networking Basics

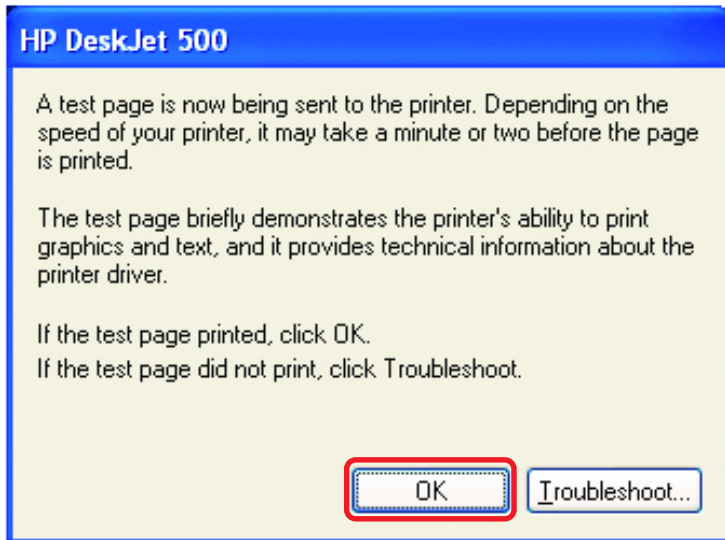
### Adding a local printer

This screen gives you information about your printer.



Click **Finish**.

When the test page has printed,



Click **OK**.

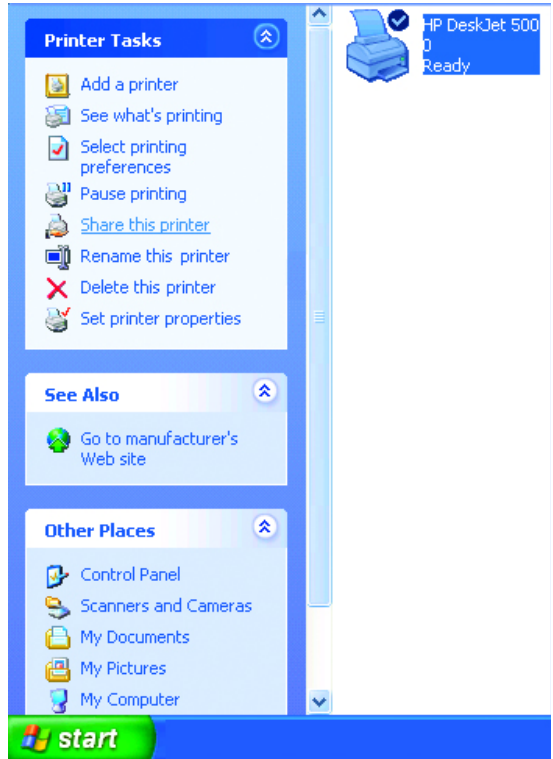
## Networking Basics

### 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:

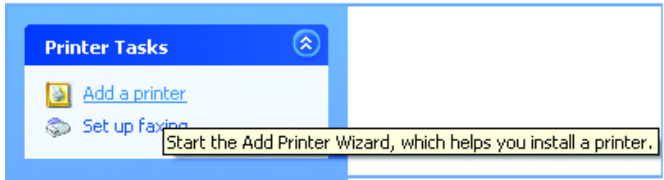
- Go to **Start > Printers and Faxes**



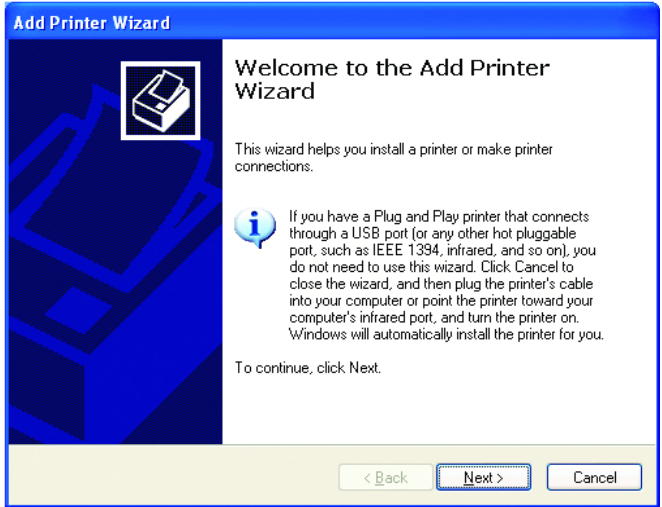
# Networking Basics

## Sharing a network printer

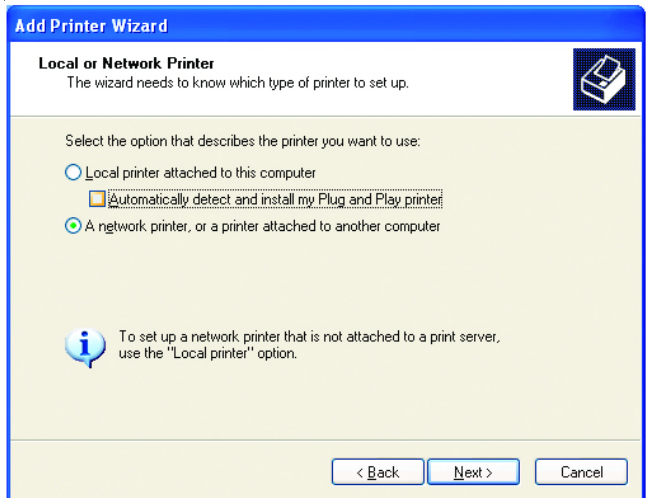
- Click on **Add a printer.**



- Click **Next.**



- Select **Network Printer.**



- Click **Next.**

# Networking Basics

## Sharing a network printer

- Select **Browse for a printer**.

- Click **Next**.

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

- Click **Next**.

- Click **Finish**.

