Micronet®
Faster and Easier Networks

User Manual

Network Print Server

Model No.: SP755C

http://www.micronet.info

TABLE OF CONTENTS

ABOUT THIS GUIDE **4**

INTRODUCTION **5**

PACKAGE CONTENTS 6
SYSTEM REQUIREMENTS 6
GENERAL FEATURES 7
PRODUCT VIEW 8

HARDWARE INSTALLATION **10**

NETWORKING APPLICATION 10
INSTALLING THE PRINT SERVER 11

USING THE UTILITIES **12**

AUTO-RUN INSTALLATION 13
PS-UTILITY 14
Installing PS-Utility *14*
Using PS-Utility *15*
PS WIZARD 18

WEB CONFIGURATION **21**

WEB CONFIGURATION UTILITY 21
HOME 22
SETUP WIZARD 23
Second HTTP Port *26*
Save to Print Server *27*
CHANGE IP ADDRESS 28
PRINTER INFORMATION 29
FACTORY RESET 30
FIRMWARE UPGRADE 31
ABOUT 32

PRINTING IN WINDOWS 95/98/ME **33**

INSTALLING THE LPR FOR TCP/IP PRINTING CLIENT 34

ADDING LPR PRINTER PORTS 36
PRINTING FROM WINDOWS 95/98/ME 38
SETTING TCP/IP PRINTING SETTINGS 41

PRINTING IN WINDOWS 2000/XP 43

SETTING UP WINDOWS 2000 TCP/IP PRINTING 43
SETTING UP WINDOWS XP TCP/IP PRINTING 51

PRINTING IN MAC OS 58

RENDEZVOUS USES IN MAC OS 10.2 58

ABOUT THIS GUIDE

This manual provides instructions and illustrations on how to use your pocket-sized Print Server, including:

- Chapter 1, **Introduction**, provides the general information on the product.
- Chapter 2, **Hardware Installation**, describes the hardware installation procedure for the product.
- Chapter 3, **Using the Utilities**, helps you to install and use the software.
- Chapter 4, **Web Configuration**, completes the configuration using the web browser.
- Chapter 5, **Printing in Windows 95/98/ME**, lets you complete printing task through your print server in Windows 95/98/ME environment.
- Chapter 6, **Printing in Windows 2000/XP**, lets you complete printing task through your print server in Windows 2000/XP environment.
- Chapter 7, **Printing in MAC OS**, lets you complete printing task through your print server in MAC OS environment.

Please note that the illustrations or setting values in this manual are **FOR YOUR REFERENCE ONLY**. The actual settings and values depend on your system and network. If you are not sure about the respective information, please ask your net work administrator or MIS staff for help.

1

INTRODUCTION

Congratulations on purchasing your pocket-sized Print Server, the easiest and fastest way to deploy printers on your network.

This compact print server can connect your network through a switch or hub between PC/Notebook and print server anywhere you wish to locate printer services. It manages the flow of print files from your workstation or file server to its connected printers, delivering print jobs to high-performance printers much faster than a file server or a PC acting as a print server can.

The pocket-sized Print Server features a Web-based Configuration Utility, which allows you to set up the print server through the web browser easily and quickly. It also includes a simple software utility **PS-Utility,** a user-friendly program that allows you to complete settings for the print server.

Package Contents

Unpack the package and check all the items carefully, and be certain that you have:

- One single port print server
- One AC Power Adapter suitable for your country's electric power service.
- One Quick Installation Guide.
- One Installation CD-ROM containing the PS-Utility program and the User's Guide.

If any item contained is damaged or missing, please contact your local dealer immediately. Also, keep the box and packing materials in case you need to ship the unit in the future.

System Requirements

- Operating System:

  Microsoft Windows 95/98/ME/NT/2000/XP/2003.

  Apple Mac OS X or above

- For Web Configuration:

  Java-enabled web browser, such as Microsoft® Internet Explorer 5.0 and Netscape Navigator 6.0.

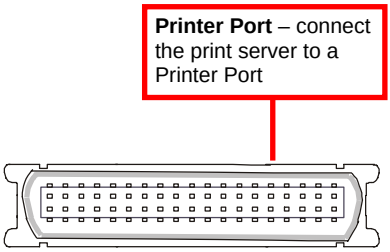
General Features

- Compliant with Bi-directional 36-pin parallel port
- Equipped 10/100 auto-MDIX Fast Ethernet LAN port
- Support TCP/IP protocol.
- Windows-based program makes it possible to set up in a few minutes.
- Offer LPR program for Windows 95/98/Me TCP/IP printing
- IP assignment support for DHCP
- Support Web configuration
- Provide Flash memory for easy firmware upgrade
- Support IPP for Windows 2000/XP
- Support second http port for remote web configuration.

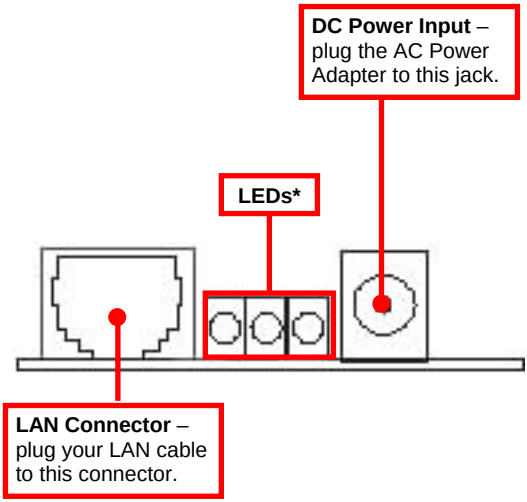
Product View

This section describes the externally visible features of the print server.

Front View



Rear View



* There are three green LED indicators on the rear panel:

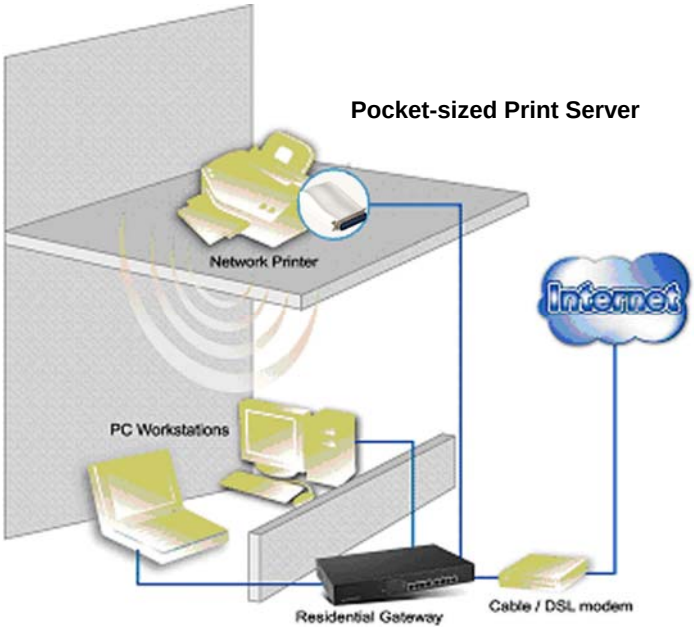
LEDs	Description
Power	Steady light confirms that the Print Server is powered on.
LPT	When it blinks, the printer connected is printing.
Link/Act	Steady light confirms that the print server has a good connection to your network. When it blinks (briefly dark), the print server is receiving/ transmitting data from/to the network.

2

HARDWARE INSTALLATION

Networking Application

The following diagram explains the application of your print server.



Installing the Print Server

Follow these steps for a trouble-free start of print server operations with your pocket-sized Print Server.

1. Confirm proper operation of the printer to be connected to the print server.
2. When you have confirmed proper operation of the printer, turn off the power.
3. Confirm that your network is operating normally.
4. Connect the print server to the network (through the RJ-45 connector of the print server).
5. While the printer is powered off, connect the print server to the printer's port.
6. Turn on the printer's power.
7. Connect the DC end of the AC Power adapter to the DC power input socket of the print server and the AC end to the wall outlet. This will supply power to the print server immediately.

NOTE: *This print server is built with a default IP Address. To prevent from any conflict in your network, it is recommended to use the PS-Utility program to change the IP setting when there is some other device's IP Address is the same as the print server's default IP Address.*

3

USING THE UTILITIES

This chapter describes the software utilities for the print server, including how to set up your print server with these utility. The **PS-Utility** is designed with a user-friendly interface that allows you to set up and administer the print server easily.

Auto-Run Installation

Insert the Installation CD-ROM into your computer's CD-ROM drive to initiate the Auto-Run program, and the menu screen will appear as below.

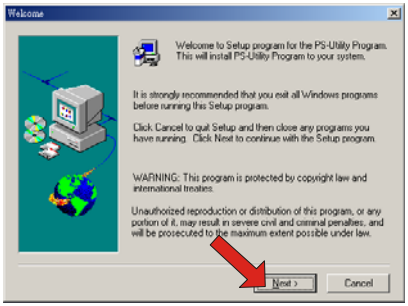
- **User's Guide** – click to preview the *User's Guide* in PDF format for detailed information of the Print Server.
- **Install Utility** – click to install PS-Utility. Please refer to the next section for detailed information on installing the utility.
- **PS Wizard** – click to launch the Printer Wizard program, which is helpful to set up the printer configuration easily and quickly.
- **Browse CD** – if you want to browse the contents of the Installation CD-ROM, click this button and the contents of the CD will be available for preview.
- **Exit** – click to close the Auto-Run program.

PS-Utility

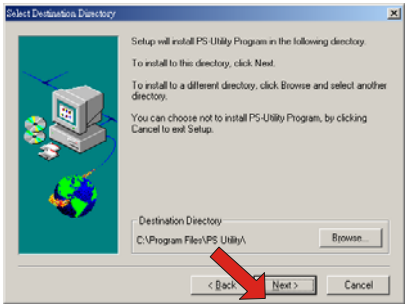
To avoid the conflict in your network, you can use PS-Utility to change the related settings of your print server (such as the IP address) after finishing the installation.

Installing PS-Utility

1. Click **Install Utility** from the Auto-Run menu screen. Once executed, the Setup program will extract files to launch the InstallShield Wizard; then, click ***Next >*** in the welcome screen of InstallShield Wizard.

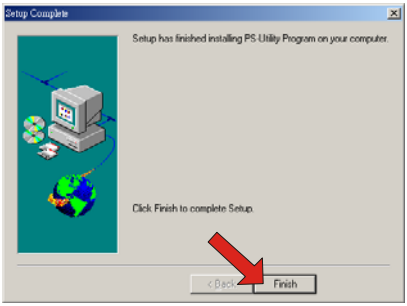


2. Choose the destination location. If no specific requirement, leave the default setting and click ***Next >***.



3. The InstallShield Wizard starts to install the software, and the Progress bar indicates the installation is proceeding.

4. When completed, click ***Finish***.

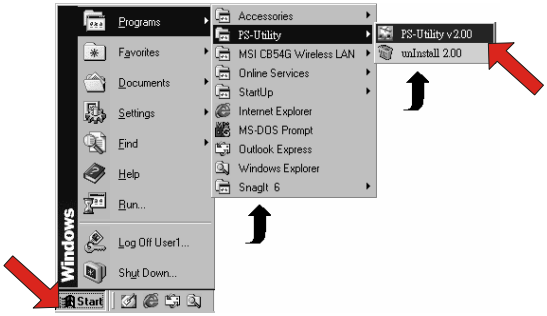


After installing the utility, the application program for the print server is automatically installed to your computer, and creates a folder in **Start\Programs\PS-Utility**.

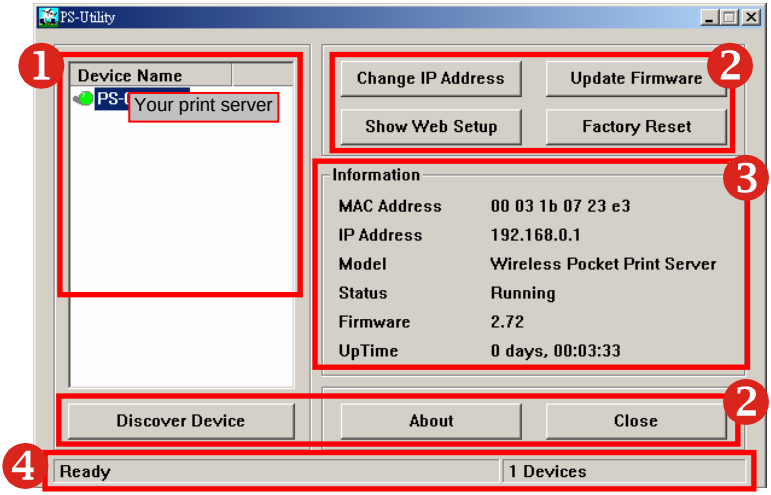
Using PS-Utility

This section describes the operation of PS-Utility. To launch PS-Utility:

1. Click **Start** -> **Programs** -> **PS-Utility**, and then click the **PS-Utility v3.00** item.



2. The main screen will appear as below, and it starts to search the connected print server within the network.

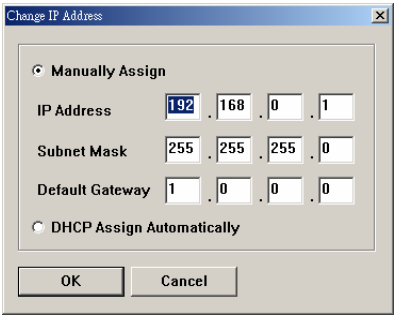


Component Features:

1 **Device List:** Display the connected print server within the network.

2 **Control Buttons**

- **Change IP Address:** Click this button to bring up the following dialog box, allowing you to change the IP Address. In this dialog box, you can select either ***Manually Assign*** or ***DHCP Assign Automatically***. When completed, click ***OK***.



- **Update Firmware:** Click this button to update the firmware of the selected print server.
- **Show Web Setup:** Click this button to open your web browser and launch the Configuration Utility. Alternately, you can double-click the print server in the Device List to launch the Configuration Utility.
- **Factory Reset:** Click this button to reload the factory settings of the print server.
- **Discover Device:** Click this button to search the connected print server again.
- **About:** Click this button to bring up a window containing the basic information of PS-Utility.
- **Close:** Click this button to exit PS-Utility.

3 **Information Field:** Display the basic information of the selected print server in the Device List.

4 **Status Bar:** Display the system status.

PS Wizard

Note: The PS Wizard doesn't support Windows 95/98/ME. The user can refer chapter 5 "Printing in Windows 95/98/ME" to set up for printing with Windows 95/98/ME.

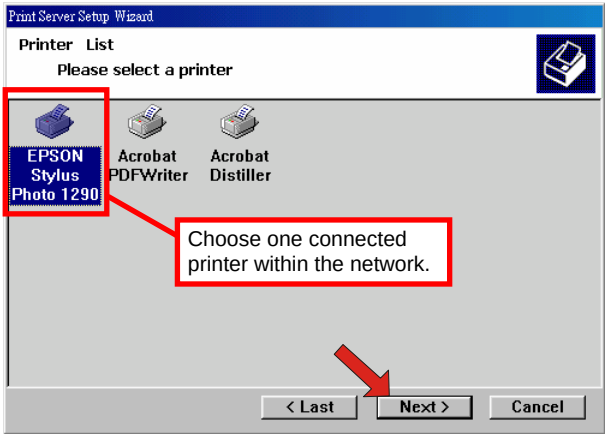
PS Wizard is a convenient utility that allows you to set up the print server's port connection.

To launch PS Wizard:

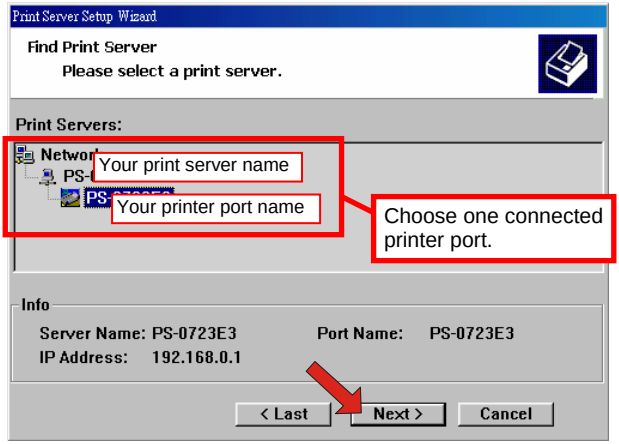
1. Insert the Installation CD-ROM into your computer's CD-ROM drive, and click **PS Wizard** from the Auto-Run menu screen. The welcome screen appears as below. Click ***Next >***.

NOTE: *For some specific printers, you may need to connect the printer to the computer and install the driver. In this case, connect it to the computer and install the driver first, and then connect it to the print server.*

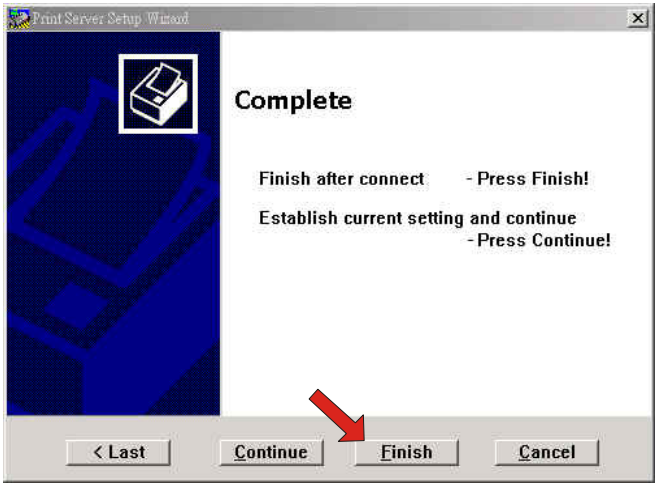
2. In the following window, select one printer in the Printer List to set up port connection, and then click ***Next >***.



3. Select one printer port in the Print Server List, and click ***Next >***.



4. The configuration is completed, click ***Reboot*** and then ***Yes*** to restart the system.



After rebooting, PS Wizard will help you to complete the port connection automatically. You can start your printing task without any complex configuration.

TIP: *If you use Windows 2000/XP, the system will not restart to complete the installation.*

4

WEB CONFIGURATION

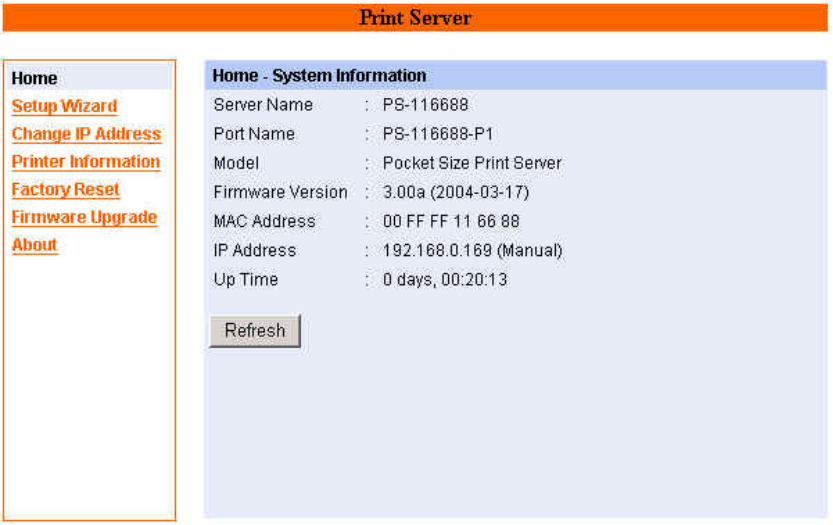
You can access and manage the Print Server through: 1) the enclosed software PS-Utility, and 2) a web browser. This chapter describes the second method – the Web Configuration Utility, and explains how to set up your print server with the web browser.

Web Configuration Utility

First, launch your web browser (such as the Internet Explorer 6.0 used in this manual). Then, type ***http://192.168.0.1*** (the default IP address) in the Address bar and press [Enter] to enter the Management screen of the Configuration Utility.

TIP: *The computer's IP address must correspond with the print server's IP address in the same segment for the two devices to communicate. Extensive knowledge of LAN will be helpful in configuring the print server.*

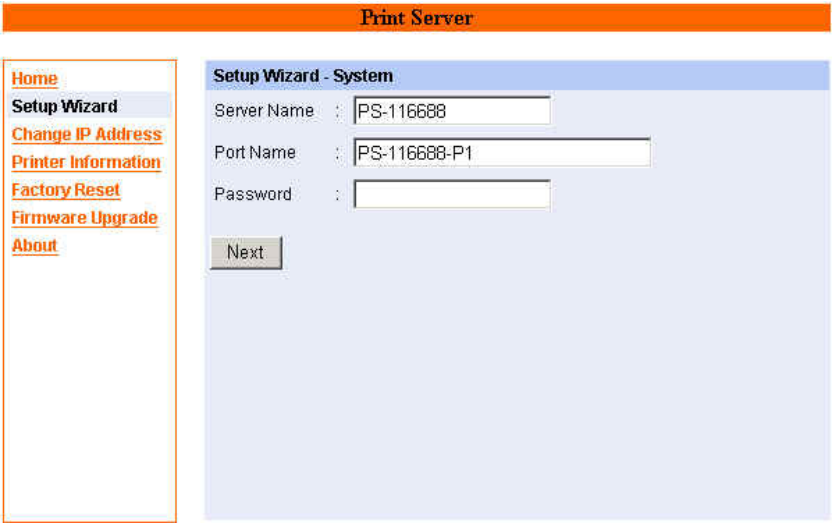
Home



The Management Screen of the Configuration Utility

The Home screen displays the basic information of the print server. As shown above, the **System** displays the status of your print server and network. Clicking ***Refresh*** will update the information.

Setup Wizard



The “Setup Wizard” will lead you to change all the configurations step by step. Please follow below steps to finish it

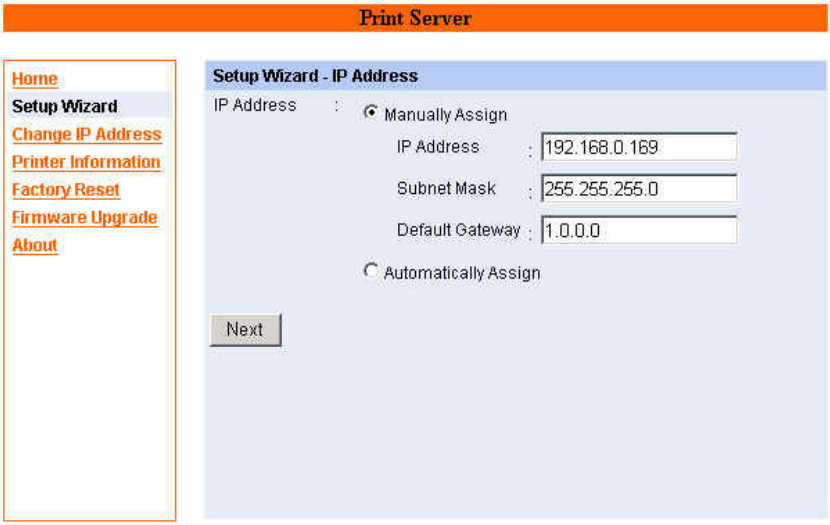
System

In this field, you can configure the basic information of your print server.

Server Name: Assign a name to the print server.

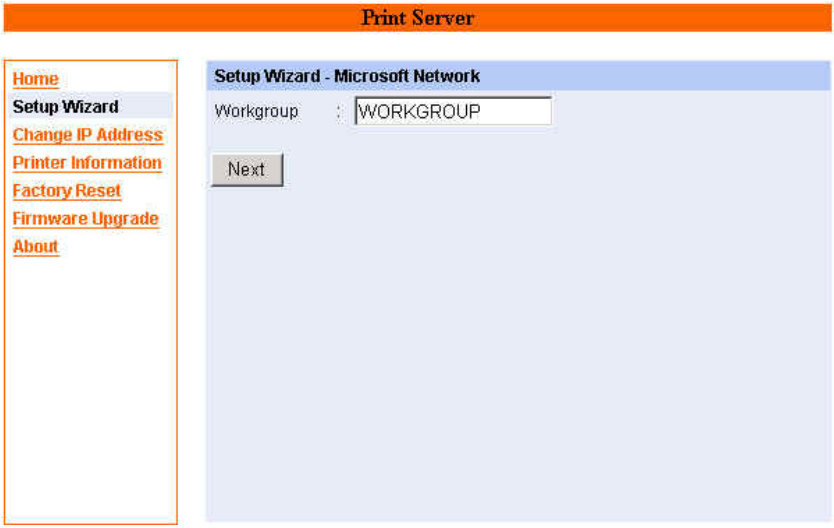
Port Name: Assign the Port Name for the print server

Password: Enter the Administrator password (3-8 characters).



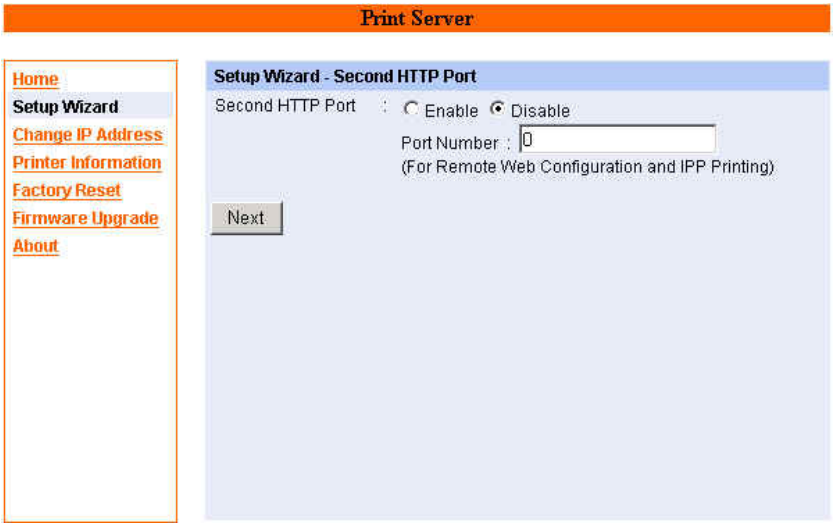
IP Address

This option allows you to set the IP address manually or automatically. When you choose ***Manually Assign***, you should enter the related information in the following boxes, including ***IP Address***, ***Subnet Mask***, and ***Default Gateway***.



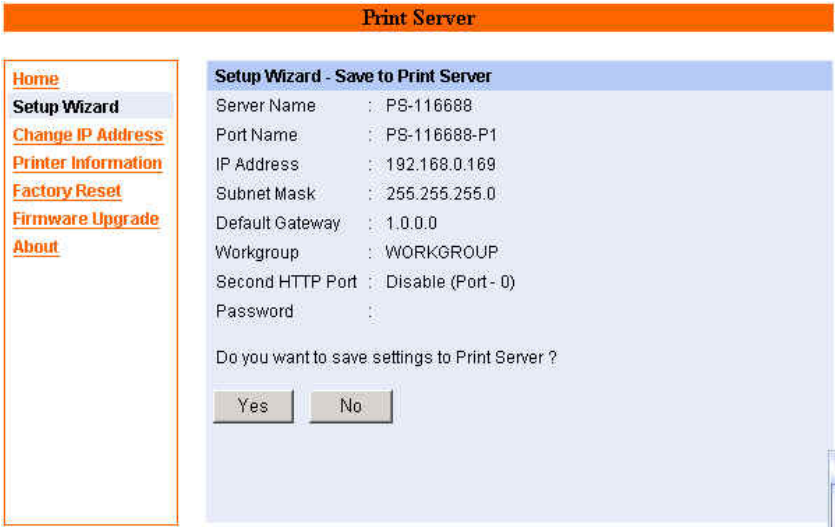
Microsoft Network

Enter the name of the Workgroup that you want the print server associated with in this field.



Second HTTP Port

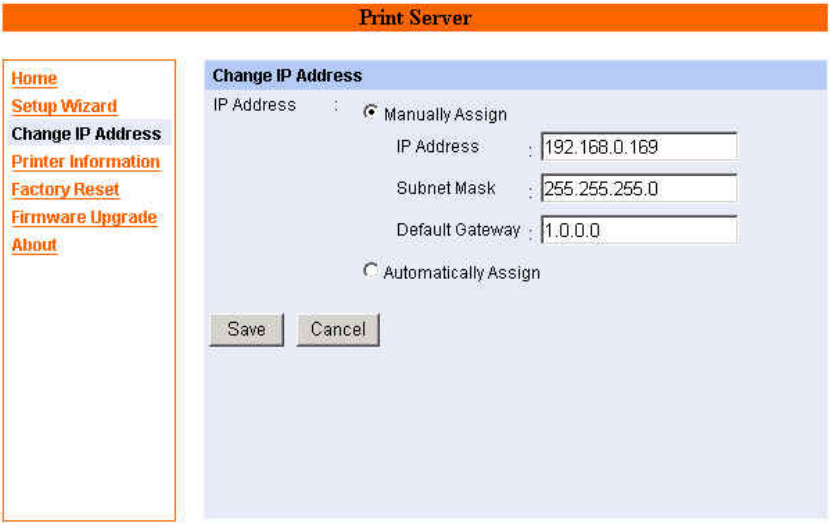
This field allows settings to open a second port for the remote printing and IPP printing function. This will permit users to execute printing jobs through broadband IP router.



Save to Print Server

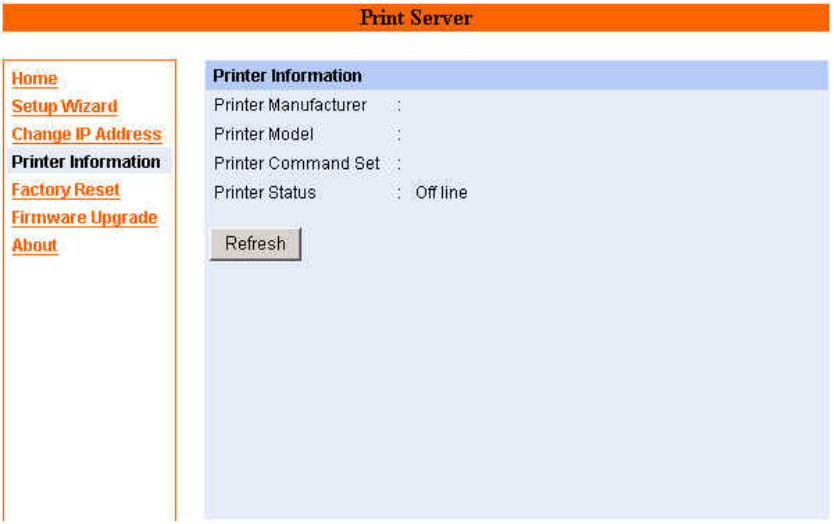
Please double check all the configurations and click “Yes” to save the settings..

Change IP Address



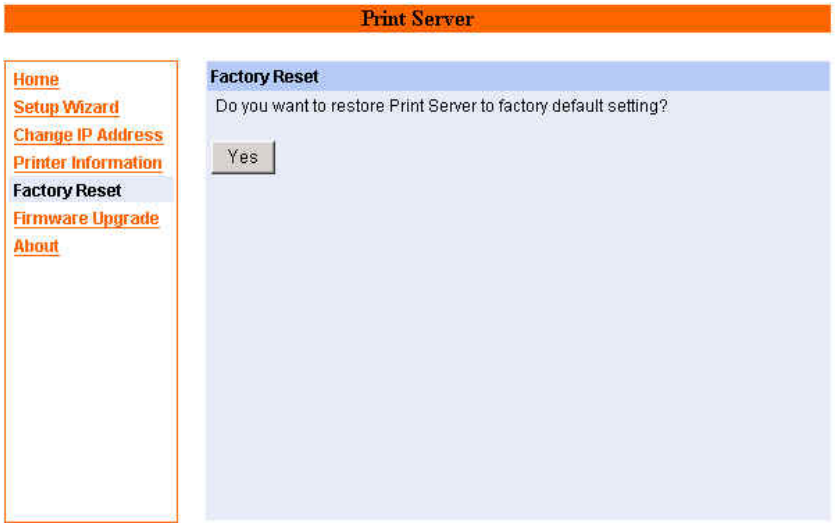
If you only need to change the print server's IP address without any other configuration. Please click the "**Change IP Address**" icon and change it to what you want.

Printer Information



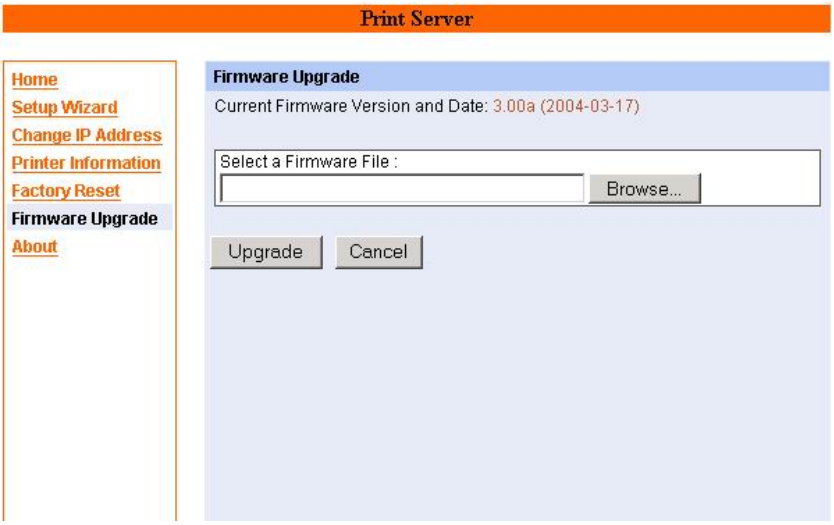
The items in this field display the information of the printer, such as the given name for the printer, printer status, and status of your printing tasks, etc.

Factory Reset



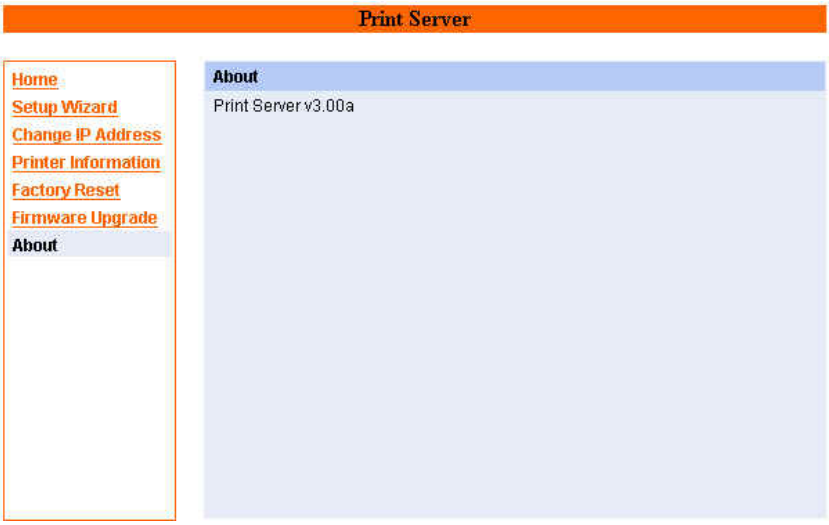
Please click ***Yes*** to reload the factory settings of the print server.

Firmware Upgrade



When a new version of firmware is available (e.g. downloading from the manufacturer's website), you can upgrade the firmware of your print server. Click ***Browse*** to point to the firmware file, and then click ***Upgrade***.

About



This screen displays the information of the print server.

5

PRINTING IN WINDOWS 95/98/ME

The Print Server can provide print services to TCP/IP networks using the lpr/lpd network printing protocol. Most UNIX systems are capable of supporting lpd, as is Windows NT/2000.

This LPR for TCP/IP Printing client gives Windows 95/98/Me workstations the ability to print using the lpr/lpd printing protocol. Though it is possible to print to Print Servers from Windows 95/98/Me, this capability is useful if primarily administer your network from UNIX systems, or if you want to print from workstations that are only accessible through IP routing.

Installing the LPR for TCP/IP Printing Client

Before your Windows 95/98/Me workstation can print using the lpr protocol, you will need to install the client program, as follows:

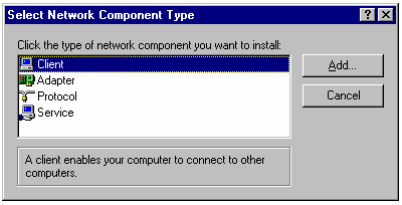
1. Make sure that you have installed the TCP/IP protocol, and have properly configured the Windows 95/98/Me TCP/IP settings. You can install the protocol from the Network control panel if necessary.

2. From the **Start** menu, choose the **Settings** submenu, then the **Control Panel** item within it. Windows will display the Control Panel folder.

3. Double-click on the Network icon in the Control Panel folder.

4. Click on the **Add...** button on the **Configuration** tab.

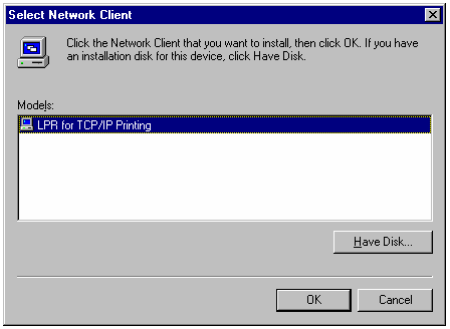
5. Windows will ask for the type of component to add. Select Client and click **Add...** to continue.



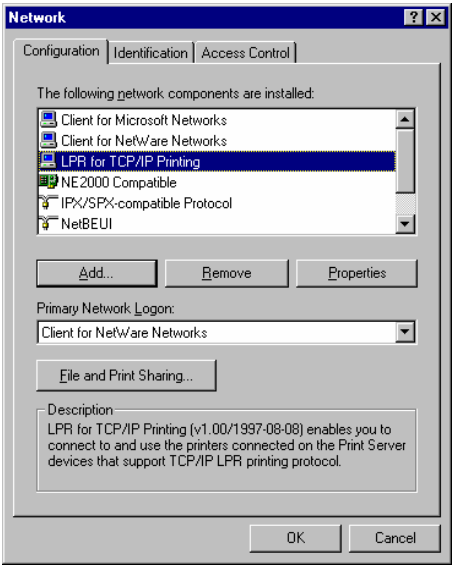
6. When Windows asks you to select a network client, click the **Have Disk...** button.

7. Insert the Print Server installation CD in your computer's CD-ROM, enter the proper pathname (for example , D:\ lpr), and click **OK**.

8. Select the LPR for TCP/IP Printing client and click **OK**.



9. Windows will copy the necessary files, and return to the Network dialog. Click **OK** to let Windows restart.

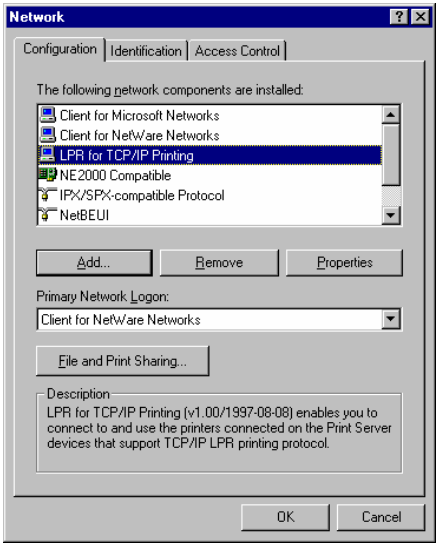


Adding LPR Printer Ports

Once you have installed the client, and have enabled TCP/IP printing for the Print Servers, then you need to add a printer port for each printer you will be printing to using the lpr/lpd protocol. To add a printer port,

1. From the **Start** menu, choose the **Settings** submenu, then the **Control Panel** item within it. Windows will display the Control Panel folder.
2. Double-click on the **Network** icon in the Control Panel folder.

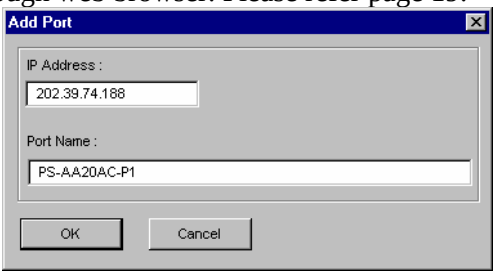
3. Choose the LPR for TCP/IP Printing client and click the **Properties** button.



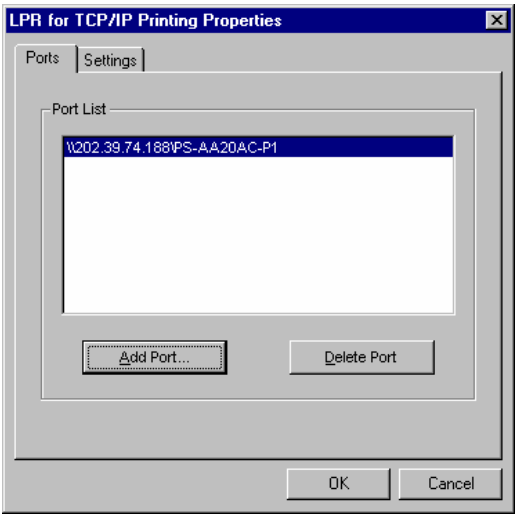
4. Click the **Add Port...** button to add a new lpd-accessible printer port.

5. Enter the IP address of the Print Server and the name of the printer port that you will be printing to, then press OK.

Hint: You can get the Port name from the print server's system information through web browser. Please refer page 19.



6. Click **OK** to leave the LPR for TCP/IP Printing Properties window.



Printing from Windows 95/98/Me

After you have added the necessary printer ports, you can add a printer device for printing to the port. To enable printing to an lpr-accessible printer port from Windows 95/98/Me,

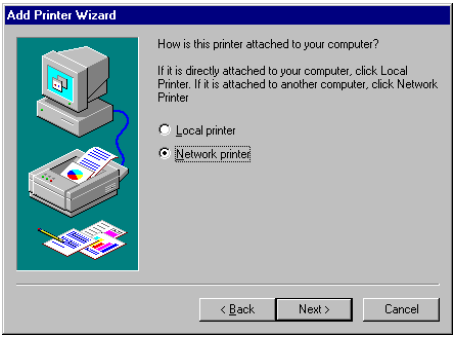
1. From the Start menu, choose the Settings submenu, then the Printers item within it. Windows will display the Printers folder.

2. Double-click on the Add Printer icon in the Printers folder.

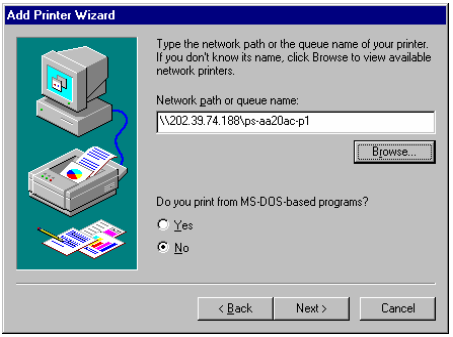
Windows will start the Add Printer Wizard.

Click the **Next >** button to continue to the next screen.

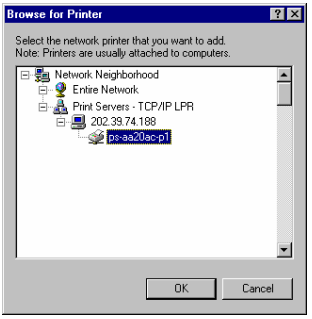
3. Choose the **Network Printer** selection and click the **Next >** button to continue.



4. Enter the name of the port, as displayed in the LPR for TCP/IP Printing Port List.



Alternatively, you can click **Browse...** and locate the printer port. TCP/IP printing ports are located under the Entire Network icon, within the Print Servers - TCP/IP LPR icon.

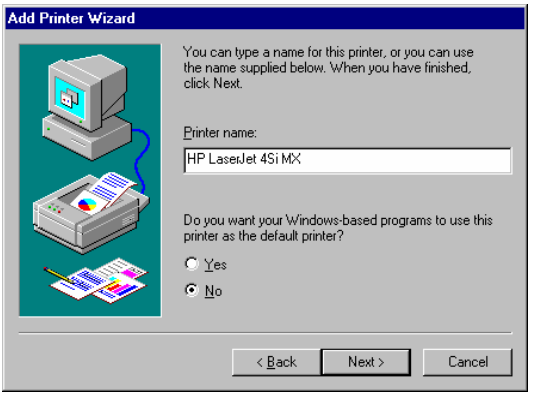


Press **OK** when you have located the proper printer port.

Click **Next >** to continue to the next step.

5. At this point Windows will ask you to choose the correct printer driver for the printer. Choose you printer's make and model from the list, or use the driver disk included with the printer. When you have chosen the correct printer, click **Next >** to continue.

6. Windows will then ask for a name for the new printer, and ask whether or not you want to set the printer as the Windows default printer. Click **Finish** (or **Next >**) to continue.



7. Windows may ask you whether or not you wish to print a test page to make sure that the printer will work correctly. When the test page is done printing, you will be asked whether or not the test page printed.

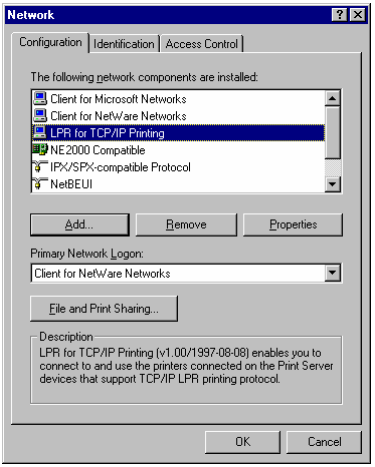
Setting TCP/IP Printing Settings

The lpr client's Properties dialog allows you to change several of the client's settings. To change these settings,

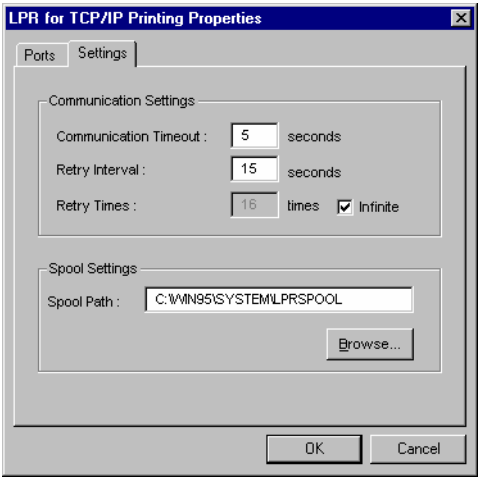
1. From the **Start** menu, choose the **Settings** submenu, then the **Control Panel** item within it. Windows will display the Control Panel folder.

2. Double-click on the **Network** icon in the Control Panel folder.

3. Choose the LPR for TCP/IP Printing client and click the **Properties** button.



4. Click on the Settings tab to access the lpr client settings. Change the settings as necessary, and press **OK** to let the changes take effect.



The parameters are as follows:

- **Communication Timeout** Determines how long, in seconds, the system will wait before determining that it has lost connection with lpr/lpd print servers.
- **Retry Interval** Determines how long, in seconds, the system will wait before retrying a lost connection.
- **Retry Times** Determines how many times the system will retry a lost connection with an lpr/lpd print server. If **Infinite** is checked, it will retry indefinitely.
- **Spool Path** Gives the directory path where the system will temporarily store lpr/lpd print server job files.

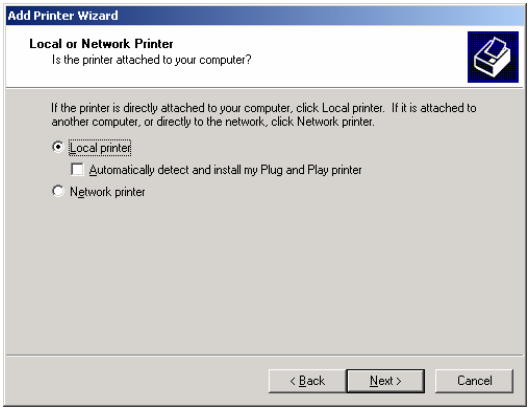
6

PRINTING IN WINDOWS 2000/XP

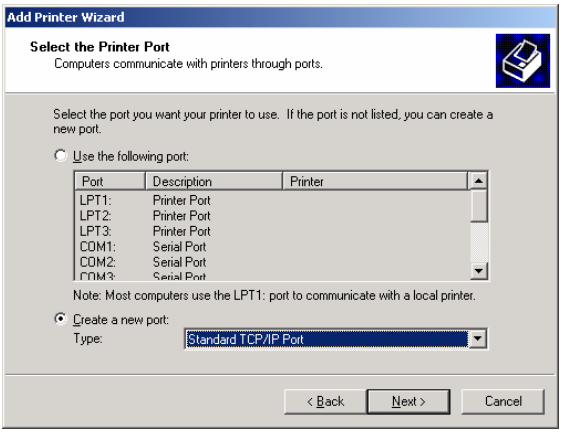
Setting Up Windows 2000 TCP/IP Printing

Following is the correct procedure for setting up TCP/IP LPR printing under Windows 2000.

Click **Start** > **Settings** > **Printers**.
Double Click "**Add Printer**"
Select "**Local Printer**"



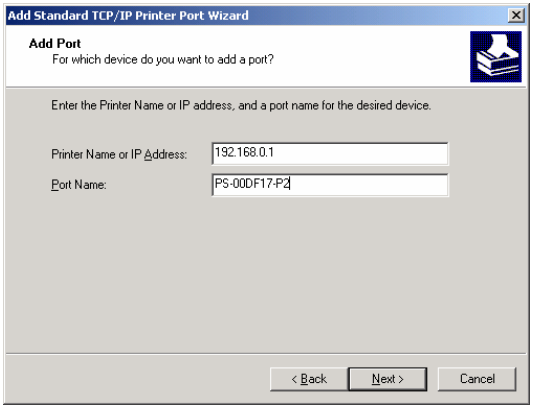
Create a new “**Standard TCP/IP Port**”



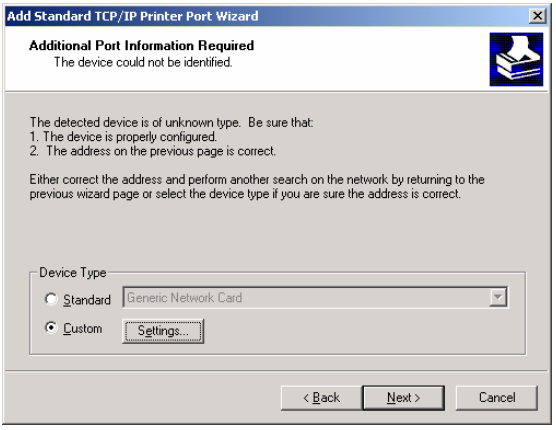
Click “**Next**”

Input the IP Address of the Print Server, and the Port name of the Port that will be printed to, then click "**Next**".

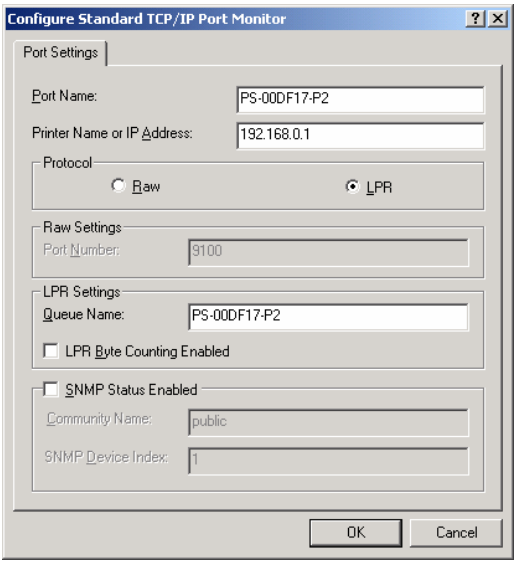
Hint: You can get the Port name from the print server's system information through web browser. Please refer page 19.



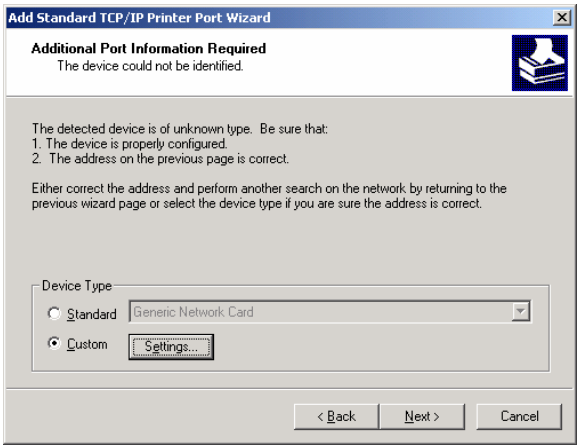
Select "**Custom**", and click "**Settings**".



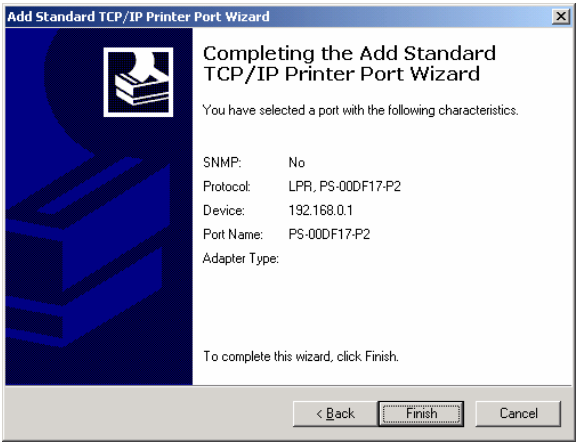
Select “**LPR**”, and put the Port name in the field labeled “**Queue Name**”. Then Click “**OK**”.



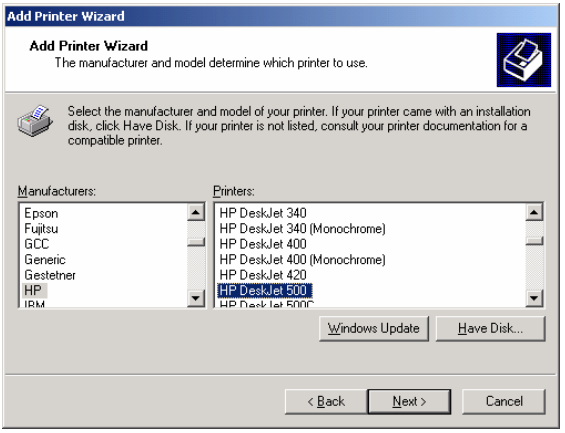
Click “**Next**”.



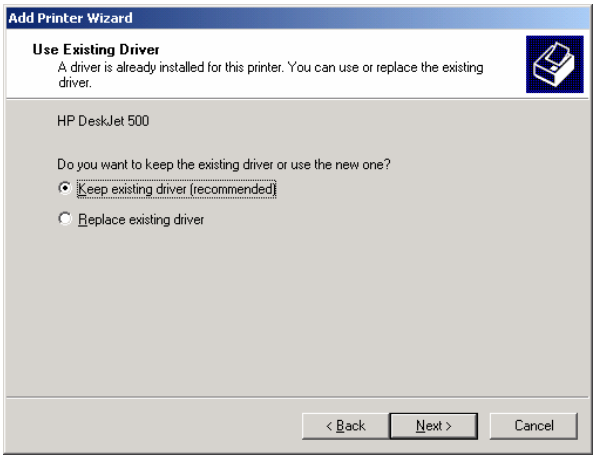
Click “**Finish**”



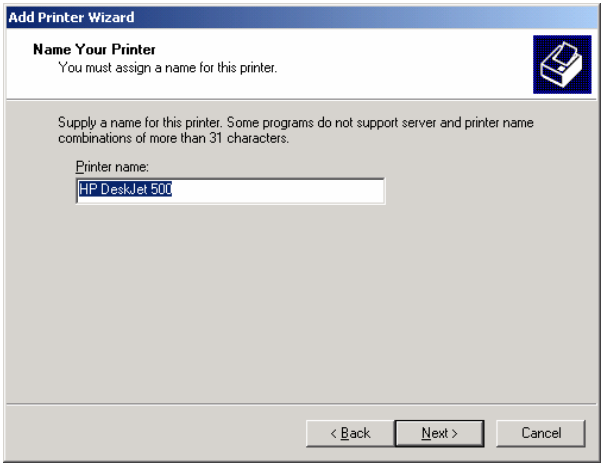
The Printer Install Wizard will now prompt for drivers. Select the correct Make and Model, or click “**Have Disk**”, to provide the Manufacturer’s Driver Disk.



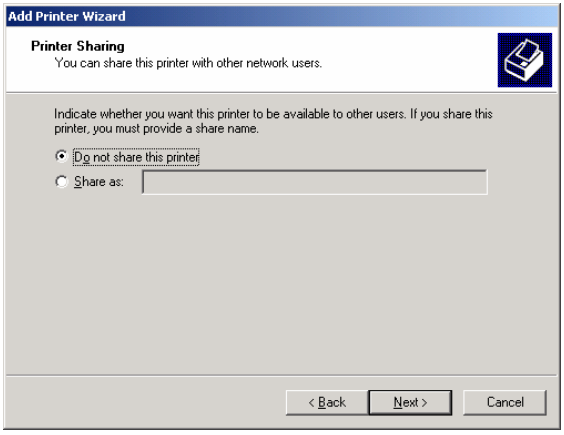
Click “**Next**”.



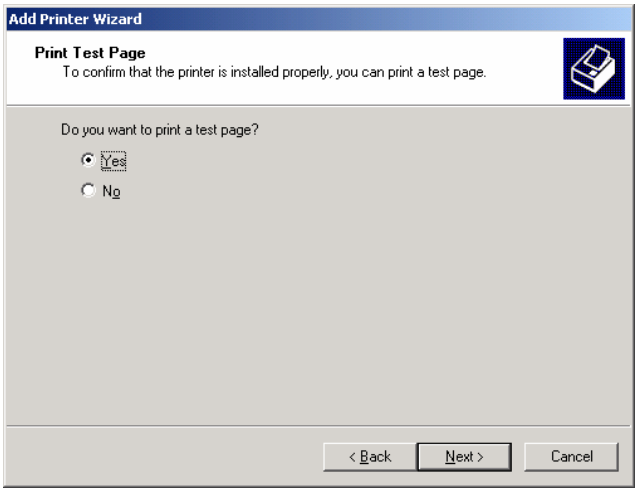
Select a “**Printer Name**”.



Sharing can be enabled here.



Also, a Test Page can be printed to confirm proper configuration.



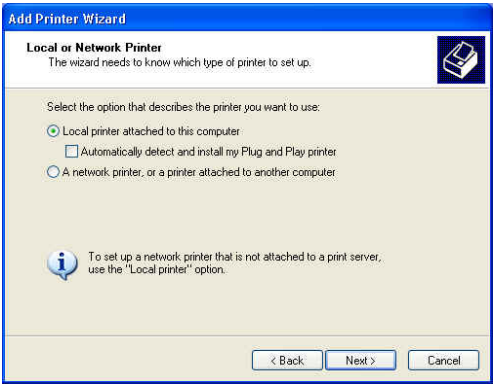
When the Test Page has been printed, click "**Finish**" to complete the installation.

Setting Up Windows XP TCP/IP Printing

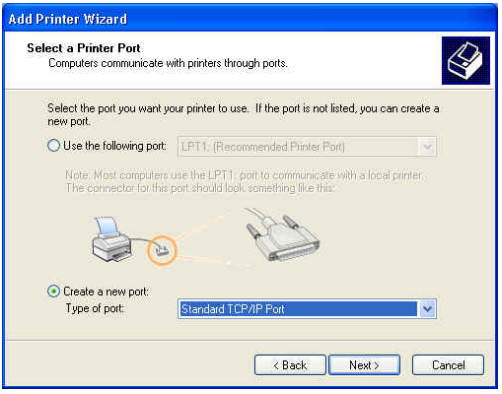
Following is the correct procedure for setting up TCP/IP LPR printing under Windows XP.

Click Start > **Printer and Faxes**
Double Click "**Add a Printer**"
Click "**Next**"

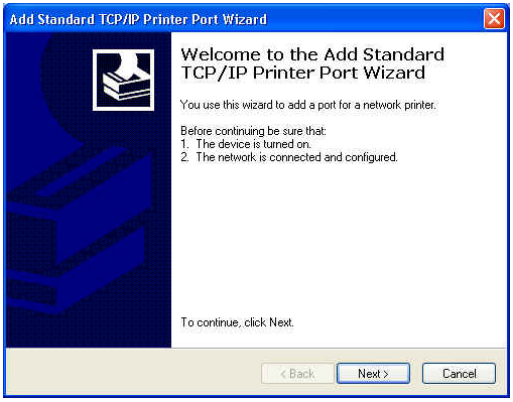
Select “**Local Printer**”



Create a new “**Standard TCP/IP Port**”

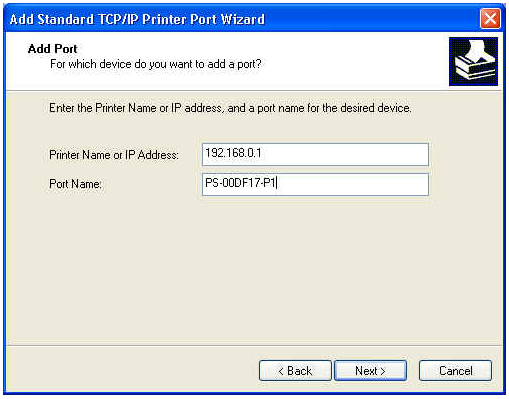


Click “**Next**”



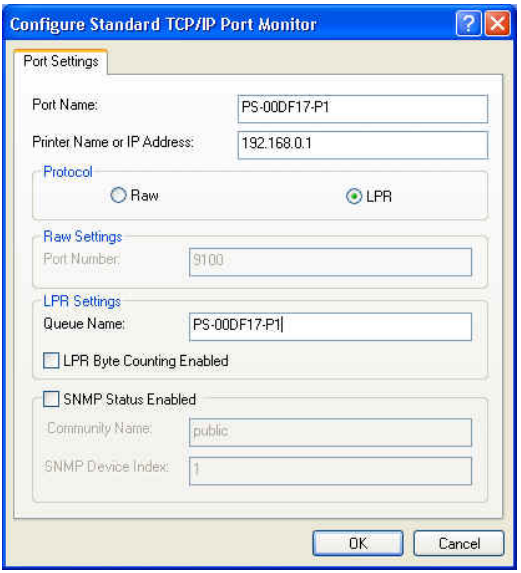
Input the IP Address of the Print Server, and the Port name of the Port that will be printed to, then click “**Next**”.

Hint: You can get the Port name from the print server’s system information through web browser. Please refer page 19.

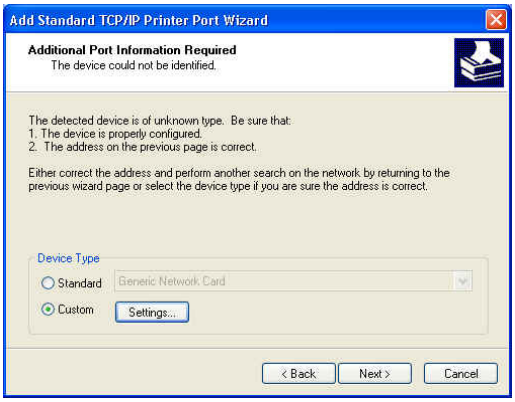


Select “**Custom**”, and click “**Settings**”.

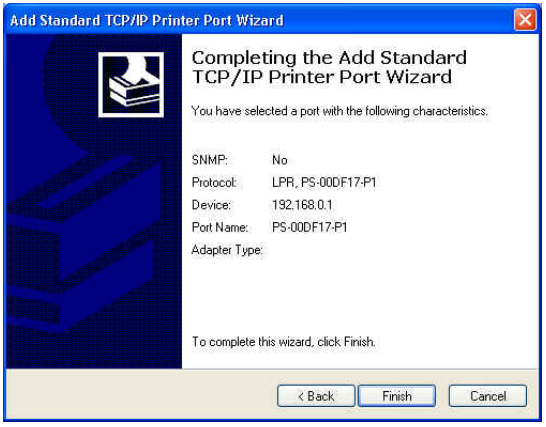
Select “**LPR**”, and put the Port name in the field labeled “**Queue Name**”. Then Click “**OK**”.



Click “**Next**”.

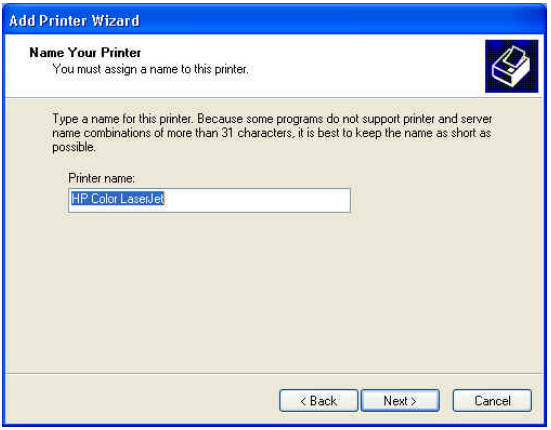


Click “**Finish**”

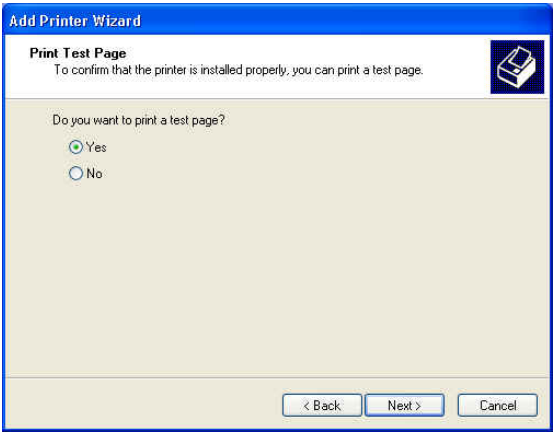


The Printer Install Wizard will now prompt for drivers. Select the correct Make and Model, or click "**Have Disk**", to provide the Manufacturer's Driver Disk.
Click "**Next**".

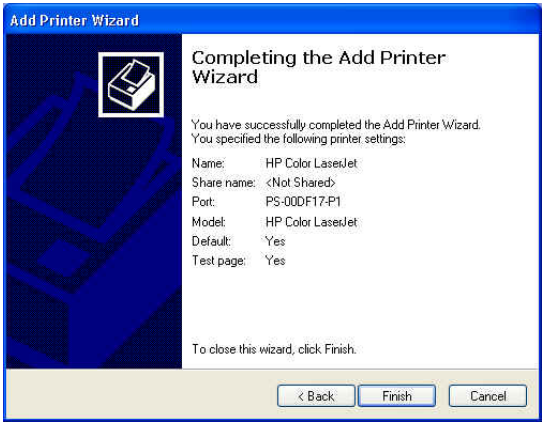
Select a "**Printer Name**".



A Test Page can be printed to confirm proper configuration.



When the test page has been printed, click "**Finish**" to complete the installation.



7

PRINTING IN MAC OS

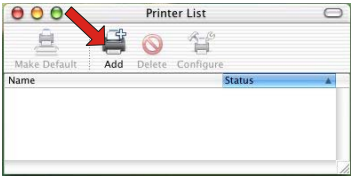
Rendezvous Uses in MAC OS 10.2

The latest version of MAC OS provides a new feature that is called **Rendezvous**. Rendezvous is a revolutionary networking technology standard that lets you create an instant network of computers and devices, which can be used throughout Mac OS 10.2 to provide innovative ways to share files and printers and even contact other people on the network.

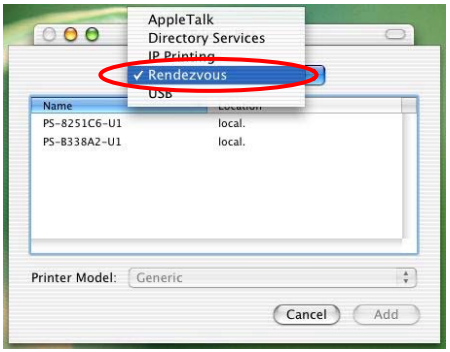
For the printer connection, the Mac OS 10.2 Print Center application uses Rendezvous to discover Rendezvous-enabled printers on the network. When you add your computer to a network, Print Center automatically discovers the available printers. All you have to do is selecting the one you want to use and then start printing. You can add a new printer to the network and all the users on the network will see the new printer automatically appear in their Print Center, without any configuration.

The following instructions provide a common procedure of installing the printer:

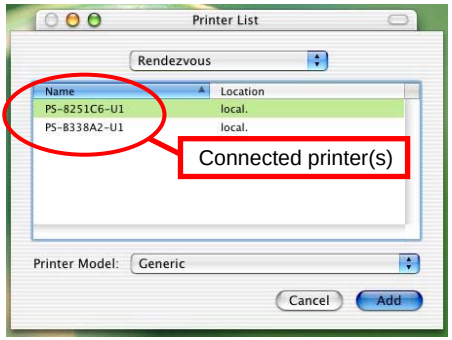
1. Launch Print Center. Press and hold the Option key, click the **Add** button.



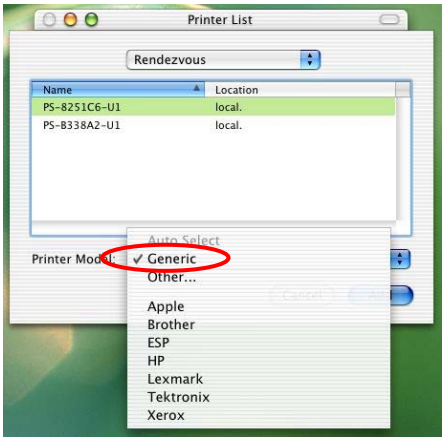
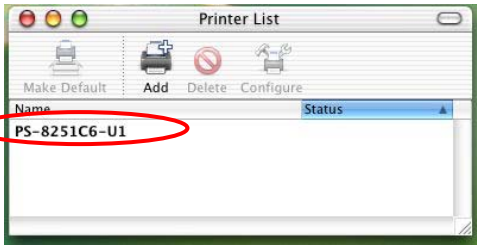
2. Select **Rendezvous** from the pop-up menu.



3. When clicking the **Rendezvous** item, the following window appears to display the connected Rendezvous-enabled printers.



4. Select the desired printer, and the following pop-up menu displays the printer's manufacturer. Select **Generic**.



5. The printer is installed into the system successfully.