Chapter 6

Web-Based Management

6

This chapter explains how to use your Web Browser to configure the Wireless Print Server models

Overview

The Wireless Print Server models incorporate the HTTP server. This allows you to connect to the Wireless Print Server and configure it using your Web Browser. Most browsers should work, provided they support tables and forms.

Preparation

Because it supports dynamic IP Address allocation using DHCP, BOOTP, or RARP, the Wireless Print Server ships with an IP Address of 0.0.0.0.

This is NOT a valid IP Address.

Therefore, you must do ONE of the following:

- Check your **DHCP server** (if you have one), and determine the IP Address allocated to the Wireless Print Server.
- Use the **Diagnostic Button** (if fitted) to print a report which includes the current IP address. (Press the Diagnostic Button, and hold it for 2 seconds.)
- Use the **Setup Wizard**, **BiAdmin** or another Wireless Print Server utility to allocate a valid IP Address to the Wireless Print Server.
- Add an entry to the **`arp`** table to associate the hardware address of the Wireless Print Server with the desired IP address, as follows:

  `arp -s IP_Address 00:c0:02:xx:xx:xx` (Unix)

  `arp -s IP_Address 00-c0-02-xx-xx-xx` (Windows)

  Where:
  `IP_Address` is the IP Address you wish to assign to the Wireless Print Server.
  `00:c0:02:xx:xx:xx` is the hardware address of the Wireless Print Server.

Example (Unix):

```
arp -s  192.168.0.21  00:c0:02:12:34:56
```

Example (Windows):

```
arp -s  192.168.0.21  00-c0-02-12-34-56
```

Note: The hardware address of the Wireless Print Server is shown on a sticker on the base of the device.

Connecting to the Wireless Print Server

1. Start your Web Browser.
2. In the *Address* box, enter *HTTP://* followed by the IP Address of the Wireless Print Server.
   e.g.
   `http://192.168.0.100`
3. You will then be prompted for the password. If no password has been set, just press ENTER.
4. Use the menu bar on the top of the screen to move about. Remember to save each screen before changing to a different screen.

Configuration Screens

Depending on your models, the Web-based interface may look different to the images shown in the User's Manual.
The functions have not changed, and the description of each setting is correct. Only the appearances are different.

AppleTalk

Figure 28: AppleTalk Screen

AppleTalk zone	This determines which Apple systems can gain access to this printer.
Printer Object Type	These are text fields, used to describe the printer driver used for each port. The Wireless Print Server is designed to work with LaserWriter (or 100% compatible) printers.
Communication Protocol	Sets whether the port uses ASCII or Binary Communication Protocol.. The default is Binary.

NetBEUI

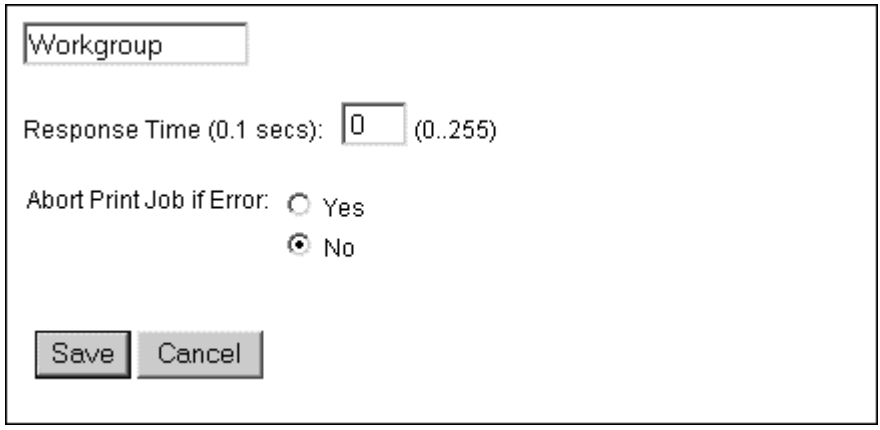


Figure 29: NetBEUI Screen

Domain Name	Enter the designated work group to be serviced by the Wireless Print Server. This field is not case sensitive, so names with different case will be considered to be the same name.
Response Time	Set how fast jobs are sent to the printer. The default value of zero (0) delay should be increased only if your printer cannot cope with no delays.
Abort Job if Error	YES terminates a print job if a printing error occurs. NO (default) will try to continue but may cause print errors. If print errors occur, try setting this value to YES.

SNMP (Simple Network Management Protocol)

The SNMP screen may not be available. Check the *Feature List* table in ***Appendix A - Specifications*** to see if SNMP is available for your model

If available, the screen will look like the following example.

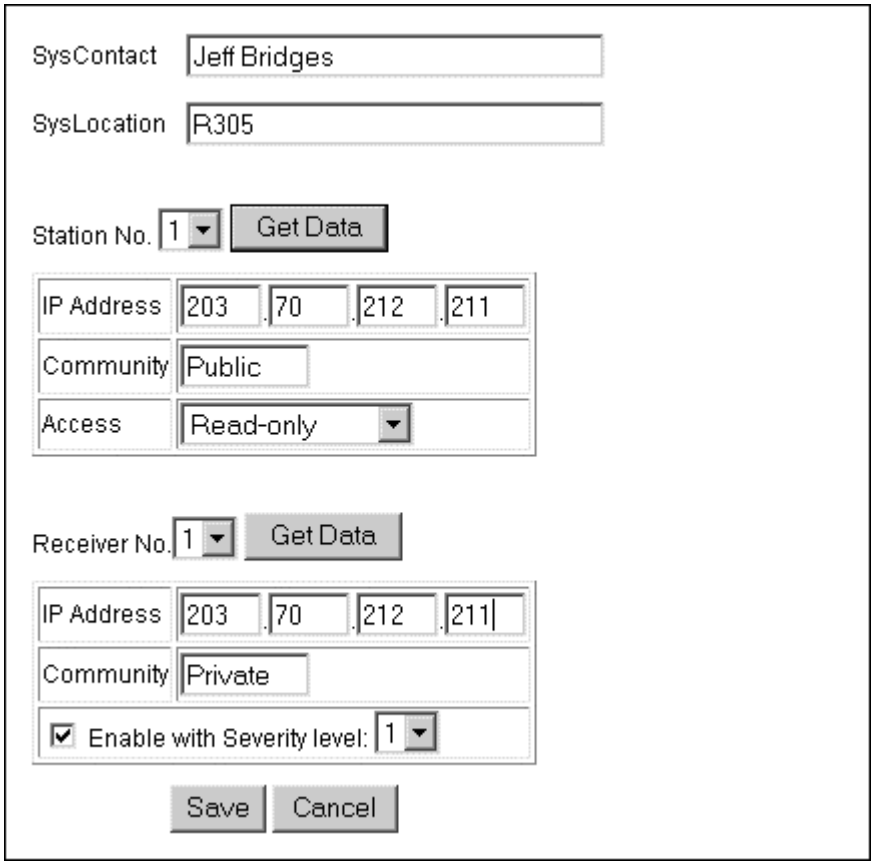


Figure 30: SNMP Screen

SysContact	Text Field - Name of the contact person.
SysLocation	Text Field - Location of the contact person.
Management Stations	
Station No.	Select the Management station (1..4), and click the ***Get Data*** button to update the display for the selected item.
IP Address	Enter the IP Address of the management station, which has the SNMP program installed.
Community	This is a text field. Enter the name of the community.
Access	Select the desired level of access.
Trap Receivers	
Receiver No.	Select the Trap Receiver number (1..4), and click the ***Get Data*** button to update the display for the selected item.
IP Address	Enter the IP Address of the Trap Receiver, which will be sent the Trap message.
Community	This is a text field. Enter the name of the community.

Enable	Check to enable; select the severity level. **Note:** Currently, all traps are level 1.

For more information about using SNMP, see ***Chapter 7 - Special Features***.

TCP/IP

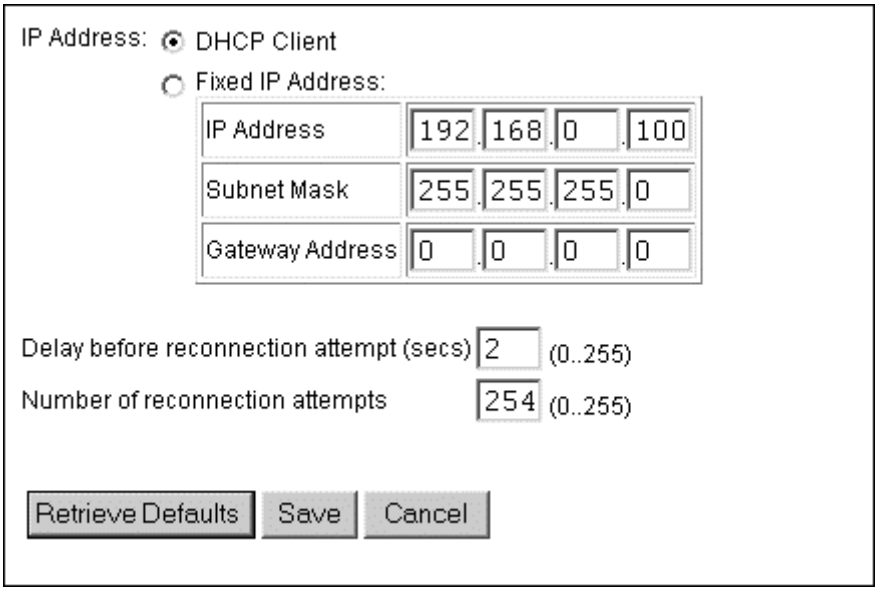


Figure 31: TCP/IP Screen

IP Address	IP Address assigned to this device. If using dynamic IP Addresses (DHCP, BOOTP, rarp), this should be left at 0.0.0.0.
Subnet Mask (Network Mask)	If the Router (Gateway) Address is 0.0.0.0, the Subnet Mask should also be left at 0.0.0.0. If you have a router, enter the Subnet mask for the segment to which the Wireless Print Server is attached.
Gateway Address	If your network segment has a router or gateways, enter its IP Address here. Otherwise, leave the address as 0.0.0.0.
Connection	
Delay before reconnection attempts	Sets how long the Wireless Print Server should wait before retrying a TCP/IP connection which is lost. Allowable values are from 0 to 255 seconds, with 2 as the default.
Number of reconnection attempts	Set how many attempts at reconnection will be made. After that, the TCP/IP session will be terminated. Allowable values are from 0 to 255, with 254 as the default.

Configure Server

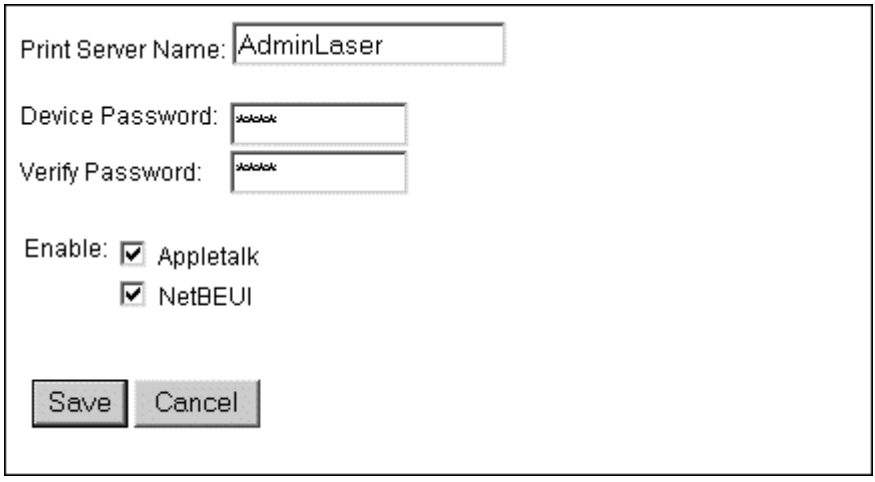


Figure 32: Configure Server Screen

Print Server Name	Change the default name if you wish. The new name must not contain any spaces or blanks.
Password	Enter the device password, and again in the ***Verify*** field. Once a password is entered, it is required in order to gain access and change the configuration.
Enable Protocols	Non-TCP/IP may be disabled if they are not required on your LAN. The available protocols depend on the Print Server model.

Wireless Configuration

The settings on this screen must match the other Wireless stations in order for communication to occur.

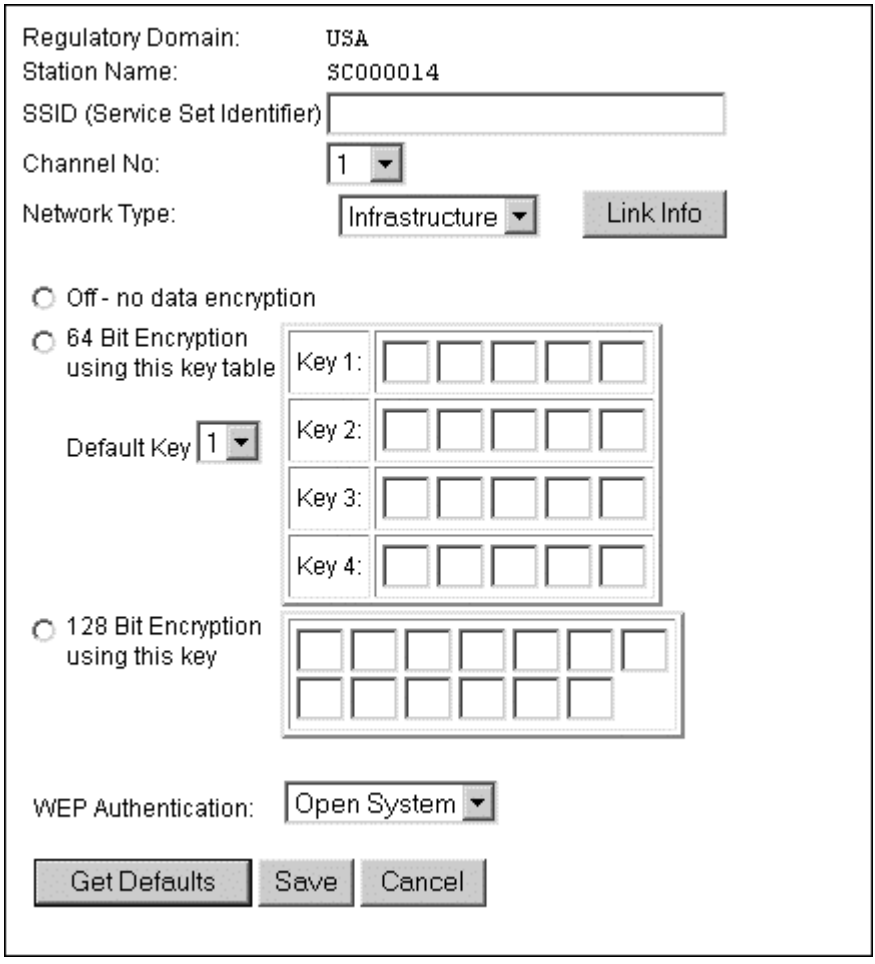


Figure 33: Wireless Screen

Configuration	
Regulatory Domain	It is illegal to use this device in any location outside of the regulatory domain.
Station name	This is the same as the *Device (Host) Name* on the WAN screen. On your PC, some Wireless status screens may display this name as the Access Point in use.
SSID (ESSID)	To communicate, all Wireless stations MUST use the same SSID/ESSID. The default value is **`null`**. **Note! The SSID is case sensitive.**
Channel No.	Select the value you wish to use on your Wireless LAN. If you experience lost connections and/or slow data transfers you may need to experiment with different channels to see which is the best.
Network Type	Select the correct value for your Wireless LAN. • **802.11 Ad-hoc** mode is used when there is no Wireless Access Point, and each Wireless station communicates directly with other Wireless stations. This is the current standard. • **Ad-hoc** mode is used when there is no Wireless Access Point, and each Wireless station communicates directly with other Wireless stations. This is the older standard. • **Infrastructure** mode is used when each Wireless station connects to the Wireless Access point. This also provides access to the wired LAN.
Link Info Button	Click this button will open the sub screen.
WEP Data Privacy	
Off	If OFF (default), data is NOT encrypted before being transmitted.
64 Bit Encryption	If selected, data is encrypted, using the default key, before being transmitted. The receiving station must be set to 64 Bit Encryption, and have the same Key value in the same position in its key table. Otherwise, it will not be able to decrypt the data. **Default Key** Select the key you wish to be the default. Transmitted data is ALWAYS encrypted using the Default Key; the other Keys are for decryption only. **Key Table**: This table is used when Encrypting and Decrypting data. All stations, including this Access Point, always transmit data encrypted using their default key. The key number (1, 2, 3, 4) is also transmitted. The receiving station will use the key number (1, 2, 3, 4) to determine which key value to use for decryption. If the key value does not match the transmitting station, decryption will fail. The easiest way to ensure there are no problems is to have every Station, including the Access Point, use the same key table (all entries identical). Then, it does not matter which key is used as the default key.

128 Bit Encryption	If selected, data is encrypted using the key before being transmitted. The receiving station must be set to use 128 Bit Encryption, and have the same Key value. Otherwise, it will not be able to decrypt the data. **Key** Enter the key value you wish to use. Other stations must have the same key
WEP Authentication	Options are "Open System" or "Shared Key". Some Wireless cards do not support both methods. Check your Wireless card's documentation to determine the correct value. Ensure that all Wireless stations use the same setting as the Access Point.

Other Screens

Server Status

This screen shows server system data and the current settings for all of the other screens. It is read-only; no data can be input on this screen.

Printer Ports

This screen displays the current status of each port. For each port, the following data is listed:

- **Connected Printer**- the model name of the printer connected to the port, if the printer name is known. (If the printer is not bi-directional, this information is unavailable.)
- **Status** - the current status of the printer (On-line, Off-line, Out of paper)
- **Printing Information** - this will show either *Idle* or *Printing*.

Logical Printers

Logical Printers (ports) can be used under Unix. For each Logical Printer, the following fields are available:

Logical Printer (Port)	Select the Logical Printer Port you wish to configure. (e.g. L1) Click the ***Get Data*** button to update the display with the current data for the selected logical printer.
Port	Select the Printer Port which the Logical printer will use.
Pre-string	The printer control string (**in hex**) to be sent to the printer before each print job. This string cannot exceed 15 characters.
Post String	The printer control string (**in hex**) to be sent to the printer after each print job. This string cannot exceed 15 characters.
Convert LF to CR+LF	If checked, LF (line feed) characters are changed to CR+LF (carriage return + line feed).

Internet Printing

See *Internet Mail Printing* in Chapter 7 for details of this feature.

Chapter 7

Special Features

7

This chapter covers the special features of the Wireless Print Server.

Overview

Your Wireless Print Server may have three (3) special features:

- IPP (Internet Printing Protocol).
- Proprietary *Internet Mail Printing* system.
- SNMP (Simple Network Management Protocol)

Check the *Feature Support* table in ***Appendix A - Specifications*** to see which features your model supports.

Internet Printing Protocol (IPP)

IPP (Internet Printing Protocol) is a standards-based system to allow remote printing from a PC to any accessible printer. Normally, the printer will be attached to a computer or other device which functions as an **IPP Server**.

Client PCs need a compatible **IPP Client** program. Windows 2000 and XP include a suitable IPP client. For other versions of Windows, a client program is supplied on the Print Server's CD-ROM.

The Client must also know the IP Address or URL or the IPP Server.

IPP Server Configuration

The Print Server contains the necessary firmware to act as an **IPP Server**. No additional configuration is necessary. However, the following requirements must be met.

- The Print Server must have a valid IP Address. For printing via the Internet, the Print Server's IP Address must be external (allocated by your ISP), rather than an IP Address on your local LAN.
- Any Router, Gateway or Firewall linking your LAN to the Internet must NOT block the IPP protocol.
- You must advise clients of the correct URL or IP Address of the IPP Server. To use a URL rather than an IP Address, you need to register the domain name for the URL.
- Unless clients are using Windows 2000 or XP, you must provide your clients with the supplied IPP Client software. If it is not convenient to provide the CD-ROM, supply the IPP_CLIENT.EXE file, located in the IPP folder.

IPP Client Setup - Windows 98/ME

For these platforms, IPP Client software is supplied on the CD-ROM.

Also you can distribute the setup program (IPP_CLIENT.EXE) to users vial E-mail.

Installing from the CD-ROM

1. Insert the CD-ROM in your drive. If the program does not start automatically, run the SETUP program in the top-level folder.
2. Follow the prompts until you reach the *Select Installation* screen, and select *IPP Client*.
3. At the next screen, select the *Install IPP Client* option.
4. Click *Next*, and step though the remaining screens to complete the installation.

Installing using IPP_CLIENT.EXE

1. Run this program to unzip the included files.
2. The IPP Setup program will then run.
3. Follow the prompts to complete the installation.

IPP Client Configuration

1. Run the "Add IPP Port" program entry created by the installation. A screen like the following will be displayed.

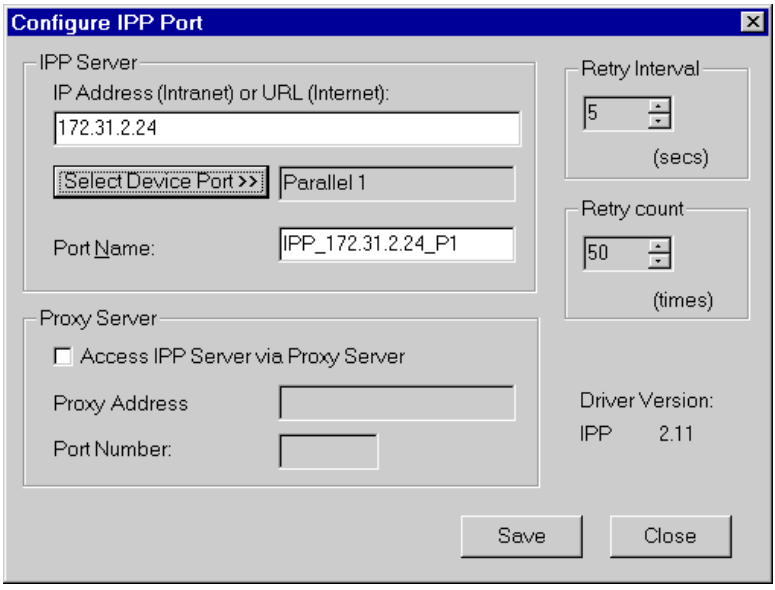


Figure 34: IPP Port

2. If Internet access from your location is via a Proxy Server, check *Access IPP Server via Proxy Server*, and enter details of your Proxy Server. (This will be the same as your Browser configuration.)
3. Enter the IP Address or URL of the IPP Server.
4. Click *Select Device Port* to view the available ports on the IPP Server, and select the appropriate port. A connection to the IPP Server will be established at this time.
5. Click *Save* to create the IPP port on your system. You will see a message confirming that the port has been created, then the following dialog:

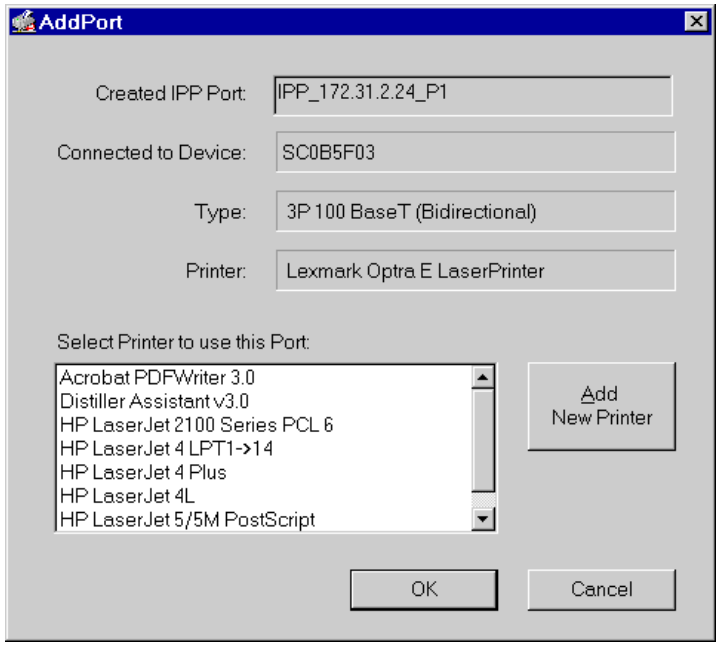


Figure 35: Select Printer for IPP Port

6. Either select an existing printer to use the new port, and click OK.

   OR

   Click the *Add New Printer* button to create a new printer to use the IPP port. This will start the *Add Printer* wizard. Follow the prompts to complete the process. Ensure that the new printer uses the IPP port.

Installation is now complete.

- To create additional IPP Ports, repeat the entire procedure.
- The Proxy Server and other options are set individually for each IPP Port.

Changing the IPP Port Settings

After the IPP port is created, you can reach the screen shown in Figure 34: IPP Port using the Windows *Port Settings* button:

1. Open the Printers folder (*Start* - *Settings* - *Printers*)
2. Right-click the IPP Printer, and select *Properties*.
3. Locate and click the *Port Settings* button (*Details* or *Port* tab, depending on your version of Windows).

There are 2 settings - *Retry Interval* and *Retry Count* - which can be adjusted if you have problems connecting to the IPP Server.

- **Retry Interval** sets the time interval (in seconds) between connection attempts. Increase this number if you have a poor connection, or the remote server is very busy.
- **Retry Count** sets how many connection attempts will be made. Increase this number if you have a poor connection, or the remote server is very busy.

IPP Client Setup - Windows 2000/XP

Windows 2000 and XP have their own IPP Client, and there is no need to install the supplied IPP Client Software. To use the Windows IPP Client with the Print Server, follow this procedure:

1. Start the *Add Printer* wizard.
2. Select *Network Printer*, and click "Next" to see the *Locate your Printer* screen, as shown below.

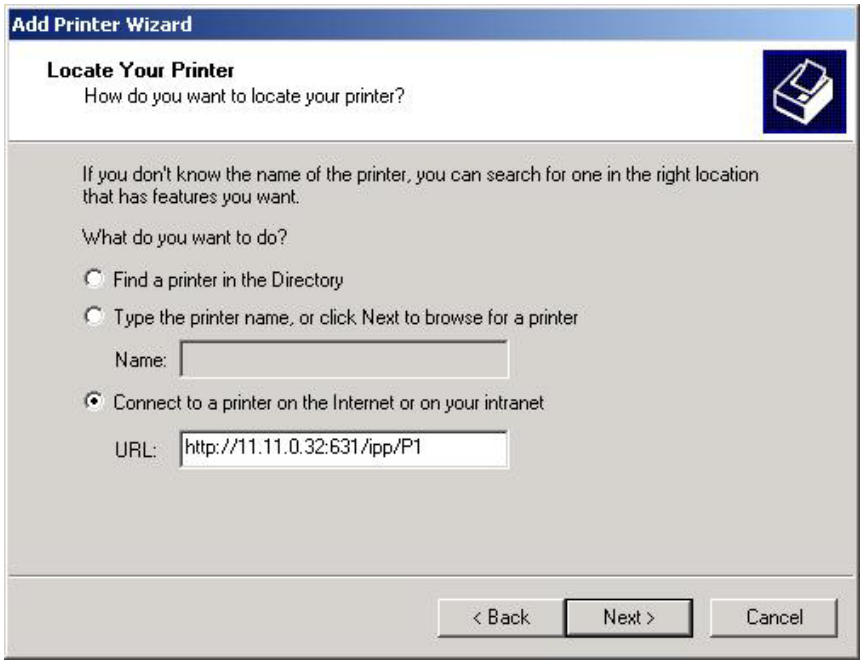


Figure 36: Windows 2000 - Locate your Printer

3. Select *Connect to a printer on the Internet or on your Intranet*, and enter the URL of the IPP Server as follows, where `ip_address` represents the IP Address of the IPP Server, and 631 is the port number.

Port 1	`ip_address:631/ipp/P1`
Port 2 (if exists)	`ip_address:631/ipp/P2`

These entries are case sensitive. They must be entered as shown, with "ipp" in lower case, and P1 and P2 in UPPER case.

4. If the connection can be established, and the printer on that port is on-line, the following dialog will be displayed.

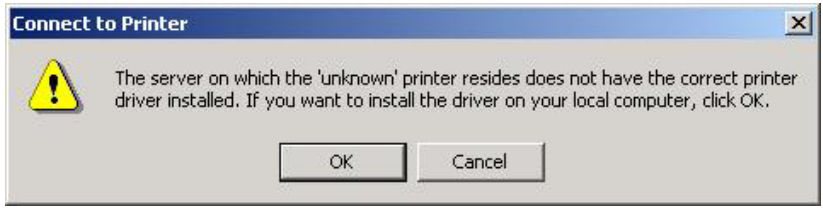


Figure 37: Windows 2000: No printer driver

5. Click "OK", and then select the printer manufacturer and model to match the printer connected to the port on the IPP Server.
6. Click "Next", and complete the Wizard.
   The IPP printer is now ready for use.

Using IPP Printers

The IPP Printer can be selected and used like any other Windows printer. If the IPP Server is not on your network, your Internet connection needs to be active.

If using the supplied IPP Client software, you can use the *Query IPP Printer* program installed with *Add IPP Port* to check the availability of the remote IPP Server.

An IPP Server may be unavailable for any of the following reasons:

- It is powered off.
- A printer problem has caused the IPP Server to cease responding, and a restart (reboot) is required.
- The Server's IP Address has changed.
- The Internet connection for the IPP Server is down.
- Network congestion causes the connection attempt to time out.

If using the supplied IPP Client software, there are 2 settings - *Retry Interval* and *Retry Count* - which can be adjusted if you have problems connecting to the IPP Server.

See the previous section Changing the IPP Port Settings for details.

Internet Mail Printing

The Internet Mail Printing System allows users to print data to your printer across the Internet. Users send the Internet Wireless Print Server an E-Mail, with the print job normally sent as an attachment to the E-Mail. The Wireless Print Server will retrieve the E-Mail and print it.

System Requirements

Mail Server

- **Accessibility.** The Mail Server must be accessible by the intended clients or users. Normally, this means a permanent connection to the Internet.
- **Protocols.** The Mail Server must support the POP3 and SMTP protocols. The Internet Printing System uses these protocols and the most common E-Mail formatting standards:
  - MIME (Multipurpose Internet Mail Extensions)
  - Base64 Encoding (for mail attachments)

Internet Wireless Print Server

- **TCIP/IP Protocol.** The LAN must use the TCP/IP protocol.
- **Mail Server Access.** The Wireless Print Server must be able to access the Mail Server using a single IP address.
- **Mail Account.** The Wireless Print Server must have a Mail Account. Users print by sending an E-Mail to this mail account.

User (Client) Requirements

- **Internet Connection.** Either through a LAN, or dial-up.
- **E-Mail address.** This is used to notify the user that their print job has been done, or if there any problems.
- **Printer Driver.** Users must have a printer driver which matches the printer connected to the remote Internet Wireless Print Server.
- **Print Capture Software.** To print more than plain text, users require InterNet Printing Port software to capture the print job and convert it into an E-Mail attachment.
  The Internet Printing Port software is available for the following operating systems:
  - Microsoft Windows 95, 98, or ME
  - Microsoft Windows NT 4.0, Windows 2000, or XP.

Internet Mail Printing Configuration

The Wireless Print Server must be configured with the data in the following table.

The supplied **BiAdmin** utility program, or the Web interface (on 100BaseT models) can be used to set the following entries on the TCP/IP screen.

Mail Server IP Address	The IP Address of the E-Mail Server used by the Wireless Print Server.
Mail Account	The name of the E-Mail Account used by the Wireless Print Server.
Mail Account Password	Enter the password for the above Mail Account here.
Check Mail Interval	Sets how often to check for mail.
Redirect Mail Account	Jobs which can not be printed will be sent to this account. If blank, unprintable jobs will be discarded.
Default Printer Port	Printer number for all Internet print jobs. Only one port can be selected. Users on the LAN can also use this port.
Printer Model	This text field identifies the printer used for Internet printing. This value is sent to remote users upon request.
Print every E-Mail	If ON, then all E-Mail received is printed. Otherwise, only E-Mail from the InterNet Printing Port will be printed.
Print Banner	If YES (default), a banner page is printed to identify the owner of the print job.
Mail Response when Printed	If YES, all print jobs receive an E-Mail response. If NO, only users who set this option in their InterNet Printing Port software receive an E-Mail.

User Software

The software provided for remote users (InterNet Printing Port) should be installed by everyone intending to use Internet printing. Otherwise, remote users can print correctly only if:

- They send an E-Mail directly to the Wireless Print Server Mail Account, using their normal E-Mail application.
- The E-Mail contains plain text only.
- The Internet Wireless Print Server is configured with *Print every E-Mail* ON.

Installation of the InterNet Printing Port software will create a new printer port. After attaching the correct printer to this port, users can print to the Internet Printer using any Windows application.

Installation - User Software

1. Run the InterNet Printing Port installation program SETUP.EXE
2. Default values for the installation are:
   - **Directory -** C:\Program Files\Internet_Printer
   - ***Start Menu* folder -** InterNet Printing Port Driver
3. You will then see the *Configure Port* screen, as shown in the following screenshot.

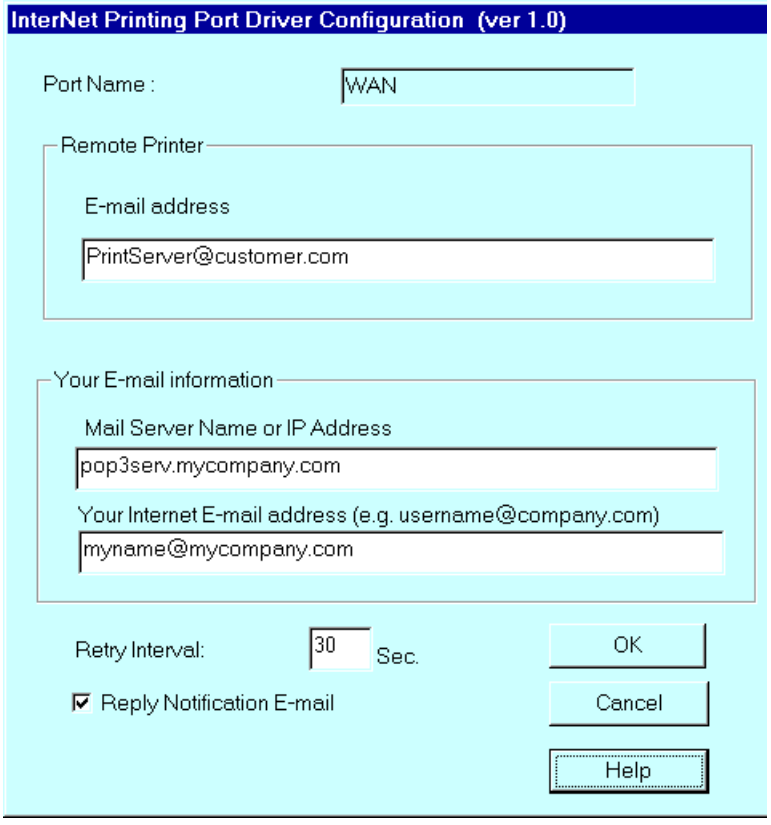


Figure 38: InterNet Printer Port

4. The following data must be provided.

Port Name	Enter a descriptive name (e.g. "WAN") for the new printer port.

Remote Printer E-mail Address	The E-Mail address for the Internet printer. Your print jobs will be sent to this E-Mail address.
Mail Server Name or IP Address	This is the name or IP Address of your Mail Server. If you are on a LAN, ask the LAN Administrator. If using a dial-up connection, use the data provided by your ISP.
Your Internet E-mail Address	The normal address that people use to send you E-mail.
Retry Interval (Seconds)	If unable to connect to the E-Mail server, retry after this time period (1 to 255 seconds, 30 is usually OK).
Reply Notification Mail	Check to receive an E-Mail when your print job has been processed.

5. On completion, a new printer port will have been created.

Using the new Port

The Windows Control Panel is used to connect the correct printer to the InterNet Printing Port. In Windows 95/NT, the procedure is:

1. Select the Printer which matches the remote printer, then choose *Properties*, as shown in the example below.

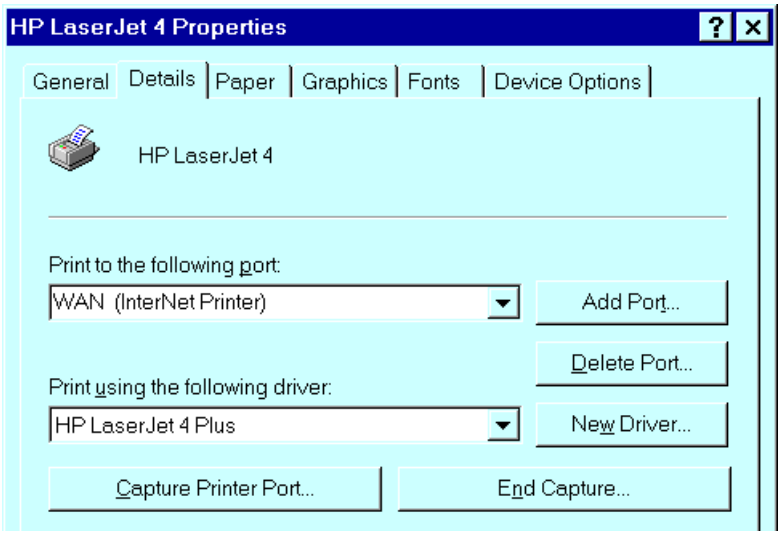


Figure 39: InterNet Printer Properties

2. Select the new port - WAN (InterNet Printer) in the example - as the port for this printer.
   - If you do not have the correct printer driver, or you wish to create another printer using an existing driver, use the Windows *Add Printer* facility.
   - Using the Windows *Port Settings* or *Configure Port* facility will reveal the same *Configure Port* screen shown in Figure 38: InterNet Printer Port.
   - If you wish to print to multiple Internet Printers, use the Windows *Add Port* facility to add a new InterNet Printer port. Ensure that the correct data is entered in each port, and that each port has a unique name.

Checking the Printer Driver

To make sure that the correct printer driver for the remote printer is installed on your system, you can use the InterNet Printing Port to send an E-Mail to the Internet Printer. The procedure is as follows:

1. Connect your default printer to the InterNet Printing Port.
2. Check that "Reply Notification Mail" in the InterNet Printing Port is ON.
3. From Notepad or another text editor, print a short message (e.g. "This is a test print") to the Internet Printer.

You will receive a reply E-Mail containing the "Printer ID" which will identify the printer attached to the Wireless Print Server. If this does not match the printer driver you are using, install the correct printer driver.

Printing through the Internet

1. Create or open the document you wish to print.
2. Select the Printer connected to the InterNet Printing Port.
3. If you do not have a permanent Internet connection, establish a connection now. (**Note**: The InterNet Printing Port will NOT establish a dial-up connection, but it will send the E-Mail the next time you are connected.)
4. Print the document.
5. The InterNet Printing Port will generate an E-Mail and send it to the remote printer. The document will be encoded and sent as an attachment to the E-Mail. You will see a progress screen similar to the example below:

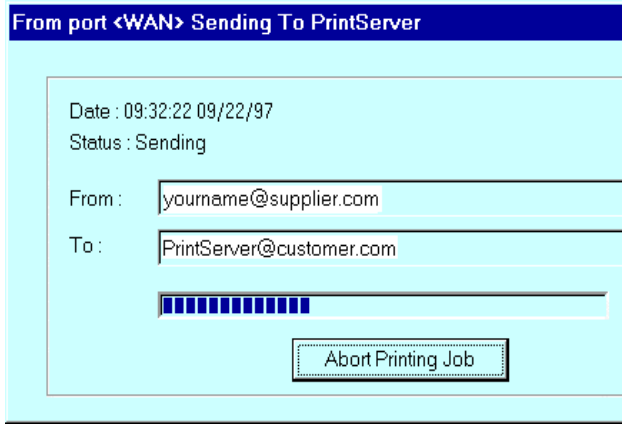


Figure 40 InterNet Printing Progress

6. Close the Internet connection if you opened it in Step 3.
7. If the "Notify after print job" option is set, you will receive an E-Mail when your job is printed.

SNMP

SNMP (Simple Network Management Protocol) allows network supervisors to monitor and control the Wireless Print Server using network management platforms such as HP OpenView, IBM SystemView, etc.

The appropriate MIB file must be imported into your SNMP management program using the *Import-Compile* command. Check your management program for details on this procedure. The MIB files are provided in the Mib folder on the CD-ROM, as follows:

Mib1p.mib	Single port models.
Mib2p.mib	Models with 2 ports

Configuring the Wireless Print Server for SNMP

Before using a SNMP Management station to manage the Wireless Print Server, the following settings should be assigned to it, in addition to the IP Address, Gateway Address, and Subnet Mask.

SNMP Settings

SysContact	Text Field - Name of the contact person.
SysLocation	Text Field - Location of the contact person.
Management Station IP Address(s)	Up to 4 Management Stations can be entered.
Trap Receiving IP Address(s)	Up to 4 Trap Receiving Stations can be entered.

Management Station Settings

For each Management Station, the following fields are available:

Access Permission	Options are: Read Only Read/Write Not Accessible
Community String	Leaving this blank will disable management by this station.

Trap Receiving Station Settings

For each Trap Receiving Station, the following fields are available:

Community String	Leaving this blank will disable management by this station.
Trap Enable	Use this option to Enable/Disable Trap Receiving by this station.
Trap Severity	In this version, all traps are level 1.

Chapter 8

Troubleshooting

8

This chapter describes some problem situations, which may arise, and the solutions to them.

Overview

If you encounter printing difficulties, please refer to the appropriate section. If, after following the advice in these documents, the Wireless Print Server still does not function properly, please contact your dealer for further advice.

Hardware & LAN Problems

Problem No. 1	**All the Wireless Print Server's LEDs are off.**
Solution No. 1	Check the power supply or power connection.
Problem No. 2	**Wireless Print Server's RED status LED continuously stays on.**
Solution No. 2	Reset the Wireless Print Server by unplugging the power supply and plugging it back in.
Problem No. 3	**The Wireless Print Server unit can not be found on the LAN, so configuration is not possible.**

Solution No. 3	**If using the Wireless Interface**
	• Ensure that WEP is disabled on your other Wireless stations.
	• If using "Ad-hoc" mode, it is not possible for Wireless stations to connect to the Wireless Print Server, because its default mode is "Infrastructure". You must use the wired interface for initial configuration.
	• If using "Infrastructure" mode, ensure that your Access Point allows connection by Wireless stations with a SSID of ANY.
	  • The Access Point itself has a blank (null) SSID.
	  • If there is a setting "Broadcast SSID" or "Allow SSID of ANY", this setting should be Enabled.
	
	If using the Wired 10/100BaseT interface:
	• Check the Hub. The link LED for the port to which the Wireless Print Server is connected should be ON. If it is Off, there is a problem in the network cable.
	• On the Wireless Print Server, check the LAN LED. If the LED is not ON, the network connection is not working.
	
	Notes:
	a) To use both the Wireless and LAN interfaces, the Wireless mode must be set to "Ad-hoc".
	b) You must Power Off the Wireless Print Server before connecting or disconnecting the LAN cable.
	
	If using TCP/IP:

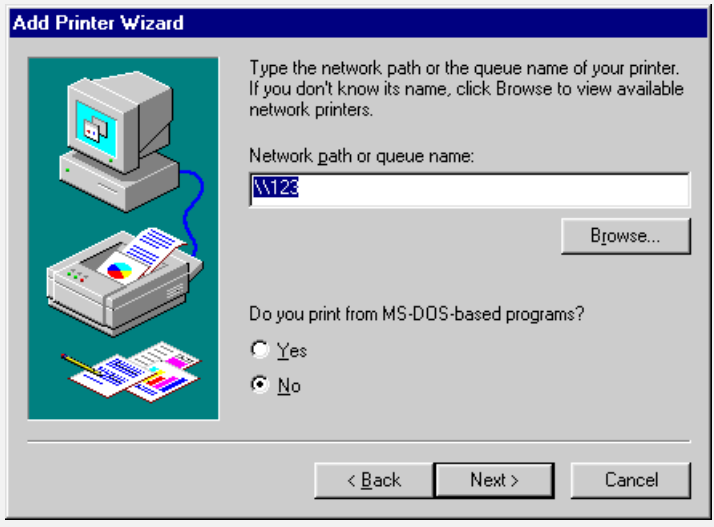
	• Ensure that there are no routers between the Wireless Print Server and the PC used for configuration. • Ensure that the PC used for configuration has the TCP/IP network protocol installed. Test its network connection by seeing if you can locate other LAN devices from the PC. (e.g. Use *Network Neighborhood* and try to browser the network.)
Problem No. 4	**I am using DHCP, and getting an IP Address conflict involving the Wireless Print Server.**
Solution No. 4	If the Wireless Print Server is left on, but the DHCP server is turned off, then the Wireless Print Server will retain its IP Address without the DHCP Server being aware of it. Simply reset the Wireless Print Server so it will obtain a new IP Address. This problem would also arise if you assigned static IP Address, which is within the range used by the DHCP server. If so, use another address which is NOT within the range used by the DHCP server.

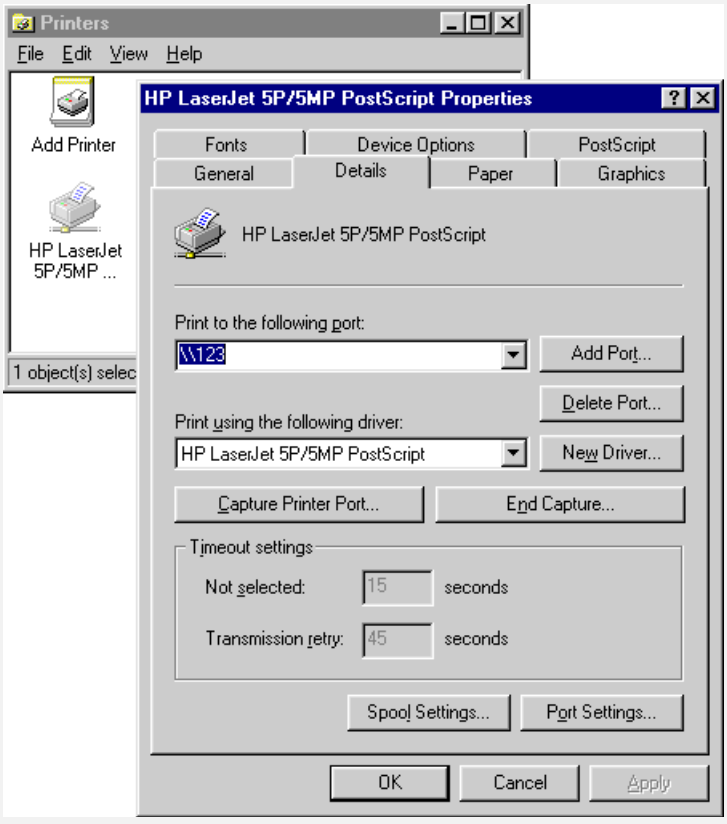
AppleTalk (Macintosh)

Problem No. 1	**Why do I get an incorrect printout?**
Solution No. 1	Some possible reasons are: • You may have chosen Binary encoding to print the file. Try to use ASCII encoding. • Some of the fonts, which are in your print file may not be supported by the printer. Try selecting LaserWriter 7 instead of LaserWriter 8.
Problem No. 2	**Can't find the Wireless Print Server's name in the Chooser.**
Solution No. 2	Try the following: 1. Make sure that AppleTalk is on (the button next to Active is highlighted in the Chooser). 2. Make sure the printer has been on and in the READY state for a few minutes. 3. Make sure the printer has not been renamed since its last appearance in the Chooser. 4. If the printer resides on a network with multiple zones, make sure the correct zone is selected from the AppleTalk Zones box in the Chooser.
Problem No. 3	**My EPS file doesn't print with the correct fonts.**
Solution No. 3	This is a problem that occurs in some application programs. Try downloading the fonts contained in the EPS file before printing the saved EPS file.
Problem No. 4	**I can't select the "Remaining from:" item in the print dialog box.**
Solution No. 4	If you have selected the Layout value, "2 Up", or "4 Up", you cannot access the *Remaining from* item. Choose other selections.

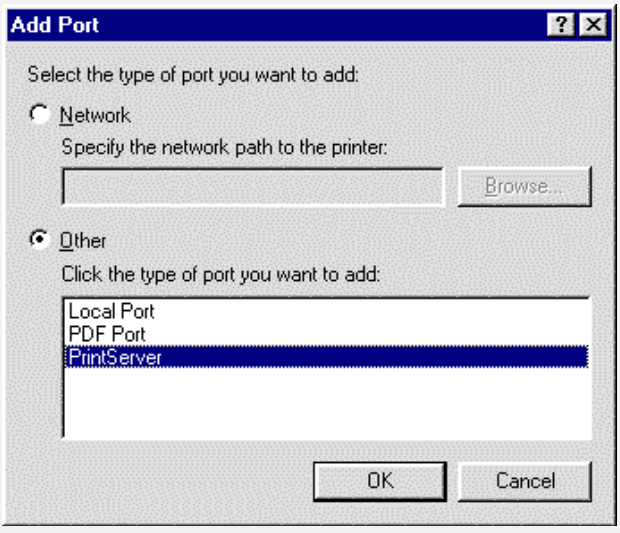
Problem No. 5	**A cover page prints either on the first or the last page of the document.**
Solution No. 5	Select one of these solutions: • Turn the cover page feature off. • Insert extra page breaks in your document to avoid the cover page printing on the first or last page of your document.
Problem No. 6	**The colors on my printed output do not match the colors on my computer screen.**
Solution No. 6	When the printer receives a color file, it tries to match the printed output color to the screen color. Sometimes the printer cannot match up the colors as closely as wanted. To alleviate this problem, perform the following steps: • Choose "Calibrated Color/Grayscale" in the *Print* pop-up menu in the *Print Options* dialog box. The printer will make adjustments to match the colors. • Check your monitor to make sure all settings (for example, brightness) are adjusted correctly.
Problem No. 7	**When I send a print job, I get a PostScript Command error or no print out.**
Solution No. 7	Check the communication protocols. **The computer, Wireless Print Server and printer must all be configured to the same communication protocol**.(either Binary or ASCII). To configure your system: 1. Choose which protocol you are going to use. You should check your printer; it may not give you a choice. 2. Set your printer to the correct protocol. 3. Use the computer's *Print* submenu to configure your computer to use the protocol you have chosen. 4. Configure the Wireless Print Server to use the same protocol as the printer and computer.

Windows Printing Problems

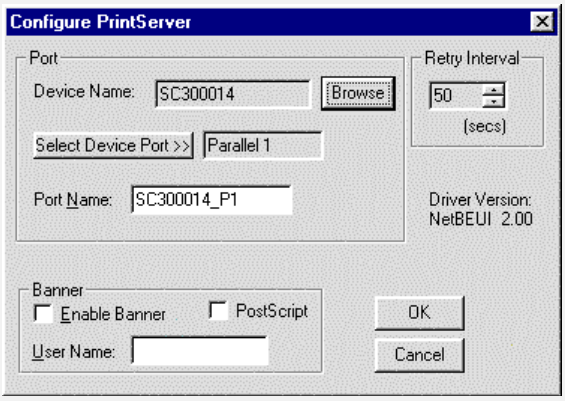
Problem No. 1	**When I tried to install the Printing software for Peer-to-Peer printing, I received an error message and the installation was aborted.**.
Solution No. 1	This may be caused by an existing installation of the printer port software. Before attempting another installation: • Remove the existing installation • Restart your PC **To remove an existing printer port installation**: 1. Open *Start - Settings - Control Panel - Add/Remove Programs* 2. Look for an entry with a name like "Shared Port", "Shared Printer Port", "Print Server Driver" or "Print Server Port". 3. Select this item, click "Add/Remove", and confirm the deletion.
Problem No. 2	**On Windows 98, I installed the Print Port Driver for Peer-to-Peer Printing, but when I selected a port on a Wireless Print Server and clicked "Add", the printer was not installed.**
Solution No. 2	Try installing the Printer using the standard Windows tools, as follows: 1. Start the *Add Printer* Wizard. 2. Select *Network Printer* when prompted "How is the printer attached to your Computer?", and click Next. 3. When prompted for the Network Path or Queue, enter a dummy value such as shown below. (Do NOT select *Yes* for "Do you print for MS-DOS programs?")  4. The printer wizard will display a message stating that "The Network Printer is off-line". This is OK. Continue the Add Printer Wizard until finished. If prompted about sharing the printer, do NOT enable Sharing. 5. Go to the Printers folder (*Control Panel-Printers*). The printer icon will be grayed out indicating the printer is not ready. 6. Right-click the Printer, and select *Properties*. Then select the *Details* tab, as shown below.



7. Click the *Add Port* button. On the resulting screen, select *Other*, then *Printer Server*, as the port to add, as shown below.

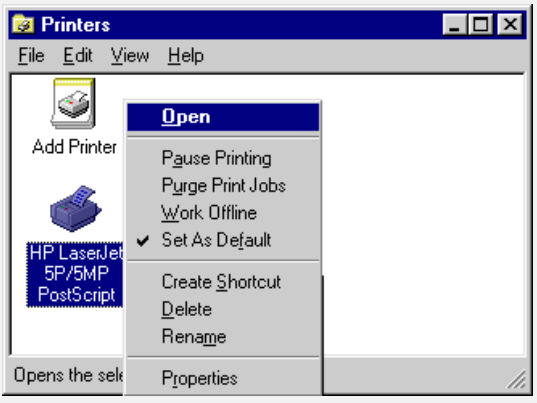


8. Click OK to see the *Print Port Configuration* screen, as shown below.



9. Click the *Browse Device* button, select the desired Wireless Print Server, and click OK.

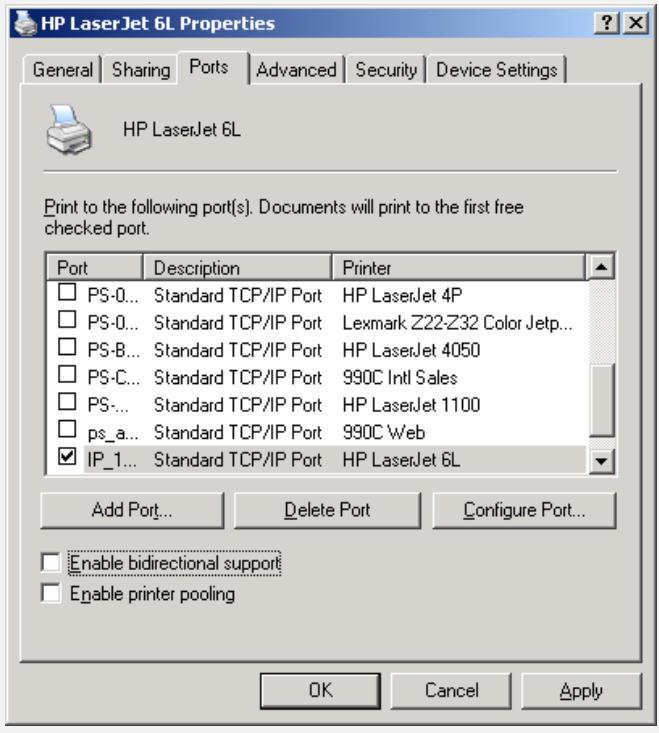
10. Click OK to return to the Printers folders, and right-click on the Printer. Ensure that the *Work off-line* option is NOT checked.



The Printer should no longer be grayed out, and is ready for use.

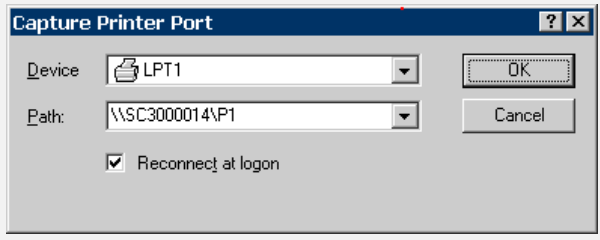
Note: The screens shown above are from Windows 98. Other versions of Windows may look slightly different, but the process is identical.

Problem No. 3	**I have a Windows-only printer, and when I tried to install the Peer-to-Peer Print driver on Windows 98/ME, installation failed.**
Solution No. 3	Some Windows-only printers cannot be networked. If a Windows-only printer cannot be installed using the Windows "Add New Printer" wizard, but only by using a program provided by the printer manufacturer, then it probably can't be networked. If the printer can be networked, the normal installation should work, but you could also try the procedure described above (Problem 2).

Problem No. 4	**Using Windows 2000/XP, I installed the printer using LPD as recommended, but I can't print.**
Solution No. 4	• Check that the correct Printer driver is being used. • Try disabling the Bidirectional printing support, as follows: 1. Open the *Printers* folder. 2. Right-click on the Printer, and select *Properties*. 3. Select the *Ports* tab. 4. Uncheck the *Enable bidirectional support* checkbox. 
Problem No. 5	**When printing from some software applications such as Power Point, it takes a long time and the print out is incorrect.**
Solution No. 5	The problem is due to the printer, which is being configured to **Start printing after the first page is spooled**. To change this setting: • Go to ***Control Panel - Printers*** and click on your printer. • Then select ***File - Properties - Details***. • When the Details screen appears, click the *Spool Settings* button. • When the Spool Settings dialogue box appears, choose *Start printing after last page is spooled* and click OK.
Problem No. 6	**The *Configuration* button on the *Printer Status* screen in BiAdmin is grayed out, even though my printer is bi-directional.**
Solution No. 6	The button is unavailable if the printer is busy. You must wait until the printer is idle.

Problem No. 7	**My old printer cannot print or prints garbage.**
Solution No. 7	If the printer you used is an old model with low speed, the following steps may solve this problem: Try the following: • Open the BiAdmin Utility. • Click the *Printer Status* icon. • Change the Printer Type setting to *Low Speed* or set the Handshake Signal setting to *Ack & Busy*.

Problem No. 8	**How Do I Print to the Wireless Print Server's printer from a MS-DOS program.**

Solution No. 8	You need to set the MS-DOS program to use LPT1 (parallel port 1) then "Capture" the output and re-direct it to the Wireless Print Server.
	Windows 98/ME
	1. Select *Start - Settings - Printers* to open the **Printers** folder.
	2. Right-click the Wireless Print Server's Printer, and select *Properties*
	3. On the *Details* tab, click the *Capture* button to see the *Capture Printer Port* button, shown below.
	 
	
	4. On this dialog:
	• Select the Device, normally LPT1 (parallel port 1).
	• Enter or select the Path to the printer:
	`\\printer_name\P1`
	Where `printer_name` is the actual name of your printer.
	e.g.
	`\\SC3000014\P1`
	• Check the *Reconnect at logon* checkbox. If this is not done, the capture setting will be lost when Windows is restarted.
	Windows 2000/ME
	1. Login as Administrator.
	2. Open the command prompt window.
	3. Enter the following command:
	`net use lpt1 \\printer_name\P1 /persistent:yes`
	Where `printer_name` is the actual name of your printer.
	e.g.
	`net use lpt1 \\SC3000014\P1 /persistent:yes`
	To terminate this capture, use the following command at the command prompt:
	`net use lpt1 /delete`

Unix Troubleshooting

Problem No. 1	**Print Server device is not recognized.**
Solution No. 1	Check the following: • The network cable is OK. • There are no routers between the Print Server and the UNIX host during IP address assignment. • There are no NetWare File Servers without TCP/IP support between the Print Server and the UNIX host. • You have used the correct hardware address, as shown on a sticker on the base of the device. • Use the ping command to see if the Print Server is a valid device on the network.
Problem No. 2	**The Print Server's IP address is forgotten and it needs to be installed in a new environment.**
Solution No. 2	Use the "Reset" button to restore the factory default settings, as described below, then configure as for a new device. 1. Turn the Print Server OFF. 2. Press and hold the diagnostic button. While pressing the button, switch the Print Server ON. 3. If you continue pressing the button for 10 seconds, a diagnostic page will be printed, showing the new (default) settings.

Appendix A
Specifications

A

General Specifications

WPS870GWireless Print Server	
Power Consumption	5.5w max.
External Power Adapter	12V DC
LEDs	4
Parallel Port	1 Centronic female DB-25 connector
USB Port (1.1)	1
Ethernet Connector	10/100BaseT
FCC / CE	FCC, CE. Class B

Environmental Specifications (all Models)	
Operating Temperature	0 ~ 40°C
Storage Temperature	-10 ~ 70°C
Shipping Temperature	-40 ~ 70°C
Operating Humidity	10 ~ 80%
Storage Humidity	5 ~ 90%
Shipping Humidity	5 ~ 100%

Parallel Port Pin Assignments

Pin	Signal Name	Direction
1	- Strobe	To printer
2	+Data 0	To printer
3	+Data 1	To printer
4	+Data 2	To printer
5	+Data 3	To printer
6	+Data 4	To printer
7	+Data 5	To printer
8	+Data 6	To printer
9	+Data 7	To printer
10	- ACK	To Server
11	+ Busy	To Server
12	+ Paper End	To Server
13	+ Select	To Server
14	- Auto Feed	To printer
15	- Error	To Server
16	- Init	To printer
17	- Select In	To printer
18-25	GND	Ground

Protocol Support

Model	TCP/IP	NetBeui	AppleTalk
WPS870G	√	√	√

Feature Support

Model	HTTP Setup	E-mail Printing	IPP Support	SNMP Support	AutoIP
WPS870G	√	√	√		√

Appendix B
Windows Server Configuration

B

Windows NT4.0 Server

If using Windows Windows NT 4.0, Microsoft *TCP/IP Printing Support* must be installed.

- If it is already installed, add a TCP/IP Remote Printer, as described below.
- Otherwise, install TCP/IP printing support, then add a TCP/IP Remote Printer.

Adding TCP/IP Printing Support

1. Go to *Start-Settings-Control Panel-Network*.
2. Click the *Service* option and ensure that **Microsoft TCP/IP Printing** is enabled. If it is not enabled, select the *Add* option and enable it as usual.
3. If you added services in step 2, reboot the computer for the changes to take affect.

Adding a TCP/IP Remote Printer

1. Go to *Start-Settings-Printer* and invoke the *Add Printer* wizard.
2. When prompted with This printer will be managed by, select **My Computer** and click Next.
3. Select **Add Port…**, then select **LPR Port** and click **New Port**.
4. In the *Name of Address of server providing lpd*: Dialog box, enter the Wireless Print Server's IP address.
5. In the Name of printer or print queue on that server dialog box, enter the appropriate logical printer number (e.g. L1) as previously configured on the Wireless Print Server. By default, L1 is port 1, and L2 is port 2 if the Wireless Print Server has 2 printer ports.
6. Click OK. When returned to the Printer Ports window, simply select *Close* and then install your printer driver as usual.
7. When prompted whether or not the printer will be shared, select the **Sharing** radio button.
8. In the *Shared* dialog box, enter the shared printer name. (The shared name is how other users will see this printer.) Click OK to save and exit.

Client PCs can now be configured as described in *Chapter 4 - Client Configuration*.

Windows 2000/2003 Server

1. Start the *Add Printer* Wizard, select *Network Printer*, then click *Next* to browse for the Wireless Print Server.
2. Locate and double-click the Wireless Print Server, select the desired port, and click *Next*.

   A message like the following will be displayed:

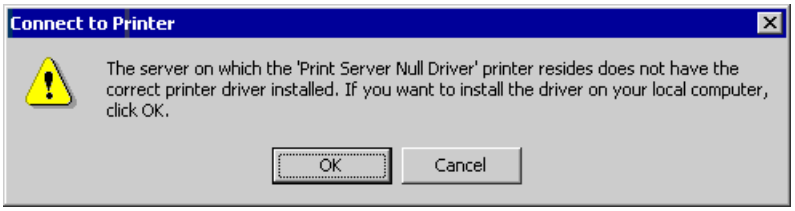


Figure 41: Windows 2000 Message

Figure 42: Windows2003 Message

3. Click "OK", and select the correct Manufacturer and Model for this printer.
4. Follow the prompts to complete the installation.
5. In the *Printers* folder, right-click the new printer, and select *Sharing*.
   - Select "Shared As:" and enter an appropriate name for this printer. Users will see this name when browsing for the printer during installation.
   - If desired, click "Additional Drivers" and install printer drivers for other versions of Windows, such as Windows 98. This will assist users during the installation process.
6. Click OK to close this Window. Configuration is now complete.

Client PCs can now be configured as described in *Chapter 4 - Client Configuration*.

Appendix C
Unix Systems

C

Overview

Your Wireless Print Server supports the LPD Unix printing method, which is supported by all common Unix systems.

You must configure both the Wireless Print Server itself and your Unix system, as described in the following sections.

Wireless Print Server IP Address Configuration

Because it supports dynamic IP Address allocation using DHCP or BOOTP, the Wireless Print Server ships with an IP Address of 0.0.0.0. This is NOT a valid IP Address.

Therefore, you must do ONE of the following:

- Check your **DHCP server** (if you have one), and determine the IP Address allocated to the Wireless Print Server.
- Configure your **BOOTP Server** (if you have one), to provide an IP address to the Wireless Print Server, then restart the Wireless Print Server.
- Use a Windows platform and run the **Setup Wizard** or **BiAdmin** utility to allocate a valid IP Address to the Wireless Print Server.
- Add an entry to the **`arp`** table to associate the hardware address of the Wireless Print Server with the desired IP address, as follows:

  ```
  arp -s IP_Address 00:c0:02:xx:xx:xx
  ```

  Where:
  `IP_Address` is the IP Address you wish to assign to the Wireless Print Server.
  `00:c0:02:xx:xx:xx` is the hardware address of the Wireless Print Server.

  Example

  ```
  arp -s  192.168.0.21  00:c0:02:12:34:56
  ```

  You should then assign this IP address to the Wireless Print Server using your Web Browser, as described in ***Chapter 6 - Web-based Management***.

Note:

The hardware address of the Wireless Print Server is shown on a sticker on the base of the device.

Other Wireless Print Server Configuration

The recommended method to configure the Wireless Print Server is to use the Web-based interface, as described in ***Chapter 6 - Web-based Management***.

- Ensure that the TCP/IP settings are correct for your network.
- The logical printers (e.g. L1) must be configured correctly to match your system.

LPD Configuration

Configuration for the most common platforms is described below.

LPD on IBM AIX 4.15

Before proceeding, ensure that the Wireless Print Server has been assigned an IP Address. To setup your AIX system for LPD printing, perform the following steps.

1. Add the Wireless Print Server to **/etc/hosts.lpd**, using the name you assigned to the Wireless Print Server.

2. Start the LPD daemon if it is not running, using the following command:

   ```
   start src -s qdaemon
   ```

3. Start the system administration tool **smit** and select *Print Spooling.*

4. Create the required number of queues (one for each logical printer) by selecting:

   Add a Print Queue

   Remote (Printer attached to Remote Host)

   Standard Processing

5. Use the following information:

Field	Entry
Name of queue to add	Use a single-word queue name, which indicates which printer is attached.
Hostname for remote server	Wireless Print Server name as used in /etc/hosts.lpd.
Name of queue on remote server	Logical printer number (e.g. L1) to service this queue.
Type of print spooler on remote server	Use default value. (AIX Version xxx)

6. Ensure that the logical printers are configured in the Wireless Print Server.

7. Print using the following command:

   ```
   lp -d printer_queue file_name
   ```

   Where
   printer_queue is one of the entries used in *Name of queue to add*.
   file_name is the file you wish to print.

LPD on System V

Before beginning LPD Setup, ensure that an IP Address has been assigned to the Wireless Print Server. Keep the following points in mind:

The **remote host name** is the name of the Wireless Print Server.

The **remote printer name** is the print queue name for the Logical Printer. Logical printers also need to be configured on the Wireless Print Server itself.

If your UNIX asks for the LPD type, be sure to identify the service type as BSD. The Wireless Print Server's LPD protocol meets BSD system standards.

In the sample commands shown, *printer_name* is the name of the Print Queue serviced by the Wireless Print Server, and *Spooler_directory* is the name of the directory, which is used to spool the print jobs.

Procedure

Action	Sample Command
Stop Print Services	/usr/lib/lpshut
Add a System Printer	/usr/lib/lpadmin -p *printer_name* -v /dev/null
Restart the Print Services	/usr/lib/lpsched
Enable printing to the new printer device	enable *printer_name*
Start accepting jobs for the new printer device	accept *printer_name*
Create a spooling directory	mkdir /usr/spool/*Spooler_directory*
Make spooling daemon the owner of this directory	chown daemon */usr/spool/Spooler_directory*
Create read/write permissions	chmod 775 */usr/spool/Spooler_directory*
Give permissions to LPD processes.	chgrp daemon */usr/spool/Spooler_directory*
Add remote printer(s)	See following section

Adding Remote Printers

A remote printer is added by inserting the following line in the /etc/printcap file.

The entry is really one line, but can be entered as shown.
Use a TAB character where shown.

```
Printer_name|Remote_Printer_Alias:\
[TAB] :lp=:\
[TAB] :rm=PS_NAME:\
[TAB] :rp=Logical_Printer_name:\
[TAB] :sd=Spooler_directory:\
[TAB] :mx#0:
```

Where:

Printer_name is the Print Queue name used to store jobs for the corresponding logical printer.
PS_NAME is the Wireless Print Server name defined in /etc/hosts.
Logical_Printer_name is the logical printer name on the Wireless Print Server. (e.g. L1)
Spooler_directory is the directory you created in Step 6.

Example:

```
Marketing|RP1_PS123456:\
[TAB] :lp=:\
[TAB] :rm=PS_Rm203:\
[TAB] :rp=L1:\
[TAB] :sd=/usr/spool/Marketing:\
[TAB] :mx#0:
```

Repeat this process for each Logical Printer/Print Queue combination that you wish to create.

LPD on Linux

If using the command line, the procedure is the same as for System V. (above)

On recent Linux distributions, you can use the graphical X-windows interface instead of the command line. The procedure is described below, but may vary according to your version of Linux.

1. Start your X-windows shell.
2. Select *Control Panel*, then *Printer Configuration*.
3. Select *Add*. For the printer type, select *Remote Unix (lpd) Queue*.
4. Use the following data to complete the resulting dialog.

Field	Data
Name	Enter a name for this printer
Spool Directory	/var/spool/lpd/*name_of_printer*
File Limit	0 (no limit)
Remote Host	Name or IP Address of Wireless Print Server e.g. SC3000014 Note: host file entry is required to use the name instead of IP Address
Remote Queue	L*n* Where *n* is the Logical Printer number By default, L1 is port 1, and L2 is port 2 if the Print Server has 2 ports.

5. Save this data, and exit the Printer Configuration. Configuration is now completed, and the printer is now available for use.

LPD on BSD

Before continuing, ensure that an IP Address has been assigned to the Wireless Print Server. Remember the following:

The **remote host name** is the name of the Wireless Print Server.

The **remote printer name** is the logical printer (e.g. L1) on the Wireless Print Server.

If asked for the LPD type, enter the service type as BSD.

In the sample commands shown, *printer_name* is the Print Queue serviced by the logical printer on the Wireless Print Server, and *Spooler_dir* is the name of the directory, which is used to spool the print jobs.

Procedure

Action	Sample Command
Create a spooling directory	mkdir /usr/spool/*Spooler_dir*
Set spooling daemon as owner of this directory	chown daemon */usr/spool/Spooler_dir*
Create read/write permissions	chmod 775 */usr/spool/Spooler_dir*
Give permissions to LPD processes	chgrp daemon */usr/spool/Spooler_dir*
Add remote printer(s)	See below
Start lpc print mechanism	lpc start *printer_name*

Adding Remote Printers

A remote printer is added by inserting the following line in the /etc/printcap file.

Note!

The entry is really one line, but can be entered as shown.
Use a TAB character where shown.

```
Printer_name|Remote_Printer_Alias:\
[TAB] :lp=:\
[TAB] :rm=PS_NAME:\
[TAB] :rp=Logical_Printer_name:\
[TAB] :sd=Spooler_directory:\
[TAB] :mx#0:
```

Where:

Printer_name is the Print Queue name used to store jobs for the corresponding logical printer.
PS_NAME is the Wireless Print Server name defined in /etc/hosts.
Logical_Printer_name is the logical printer name on the Wireless Print Server. (e.g. L1)
Spooler_directory is the directory you created in Step 6.

Example:

```
Marketing|RP1_PS123456:\
[TAB] :lp=:\
[TAB] :rm=PS_Rm203:\
[TAB] :rp=L1:\
[TAB] :sd=/usr/spool/Marketing:\
[TAB] :mx#0:
```

Repeat this process for each Logical Printer/Print Queue combination that you wish to create.

Printing using LPD

For LPD printing instructions, refer to your UNIX manual. The following example is for a BSD system:

```
lpr  -P printer_name filename
```

Where:
printer_name is the name of the Print Queue defined on the Unix host.
filename is the name of the file you wish to print.

Example:

```
lpr  -P Marketing  /etc/hosts
```

In the above example, the /etc/hosts file is sent to the printer queue Marketing. It will then be sent to the logical printer associated with this queue.

Appendix D
NetWare

Overview

- The Print Server must be configured as a valid device on your TCP/IP network. This printing method uses LPR over TCP/IP, not the Netware protocol.
- To use NDPS (Novell Distributed Printing Services), the Novell server must be running Novell NetWare 5, and the PCs (clients) must be running IntranetWare Client V2.2. or later.

The following procedure is designed to enable ***Public Access Printing*** under NDPS. *Public Access Printing* allows anybody on the network to access the printer.

Creating an NDPS Manager Object

If an NDPS Manager Object already exists, skip this procedure and proceed to *Creating an NDPS Printer Agent*.

1. Login to NetWare 5.0 Server as Admin and start the NetWare Administrator program Nwadmn32.exe.
2. Select the container on NetWare Administrator where you want the NDPS Manager object to reside. (e.g. TeSupp)
3. Select *Create* - *Object* from the menu bar to view the *New Object* dialog.
4. Select *NDPS Manager* as the object to create. The *Create NDPS Manager Object* window shown below will appear.

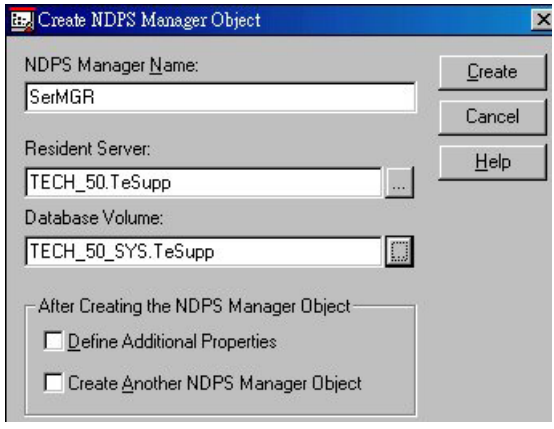


Figure 43: Create NDPS Manager Object

5. Type a name in the NDPS Manager Name.(e.g. SerMGR in Figure 1 above)
6. Browse the Resident Server and select where you want the NDPS Manager object to be assigned. (e.g. TECH_50.TeSupp in figure 1 above)
7. Browse the Database Volume and select where you want the NDPS Manager database to be assigned. (e.g. TECH_50_SYS.TeSupp in figure 1 above)
8. Click ***Create***. The new NDPS Manager will appear in the main browser window.

To start the NDPS Manager in future, enter the following command at the console:

```
LOAD NDPSM
```

then select the NDPS Manager object.

To start the NDPS Manager whenever you bring up the server, add a command like the following to your server's AUTOEXEC.NCF file:

```
LOAD  NDPSM  SerMGR.TeSupp
```

The last item is the name of the NDPS Manager object you wish to load.

9. After creating an NDPS Manager, you can create NDPS printers by using NetWare Administrator, as explained below.

Creating an NDPS Printer Agent

To create Public Access Printers using the NDPS Manager Object in NetWare Administrator, follow this procedure:

1. Start the NDPS Manager object you will be using to control the Printer Agent.
2. At the *Identification* page, click the *Printer Agent List.*
3. Click *New* to see the *Create Printer Agent* window, as shown below.

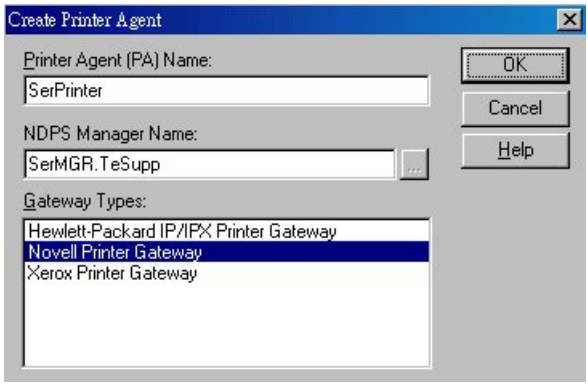


Figure 44: Create Printer Agent

4. Enter the desired name for the *Printer Agent (PA) Name.*
5. Normally, the *NDPS Manager* will be the NDPS Manger object you are using.
6. Select *Novell Printer Gateway* in the *Gateway Type.* (see figure2 above)
7. Click *OK* and then select the available printer.
8. Select *Remote (LPR on IP)* in the *Connection Type*.
9. Click *Next* to see the following *Configure Port Handler* screen.

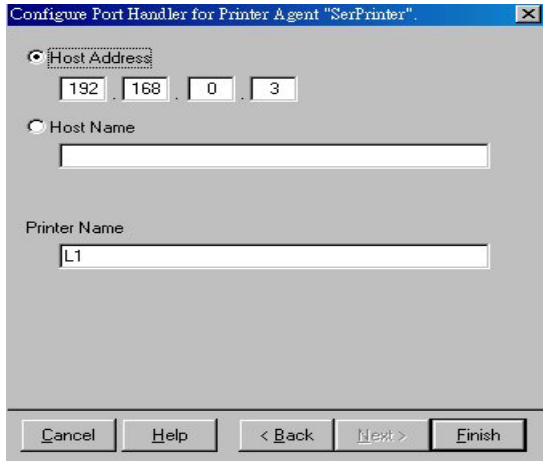


Figure 45 Configure Port Handler

10. In the *Host address IP* field, enter the IP Address previously assigned to the Print Server device.
11. In the *Printer Name* field, enter the Logical Port name on the Print Server. (L1 for Port 1, L2 for port 2).
12. Click *Finish*, then select appropriate drivers for Windows 98 etc as required.
13. The new Printer Agent will now appear in the Printer Agent List window.

Repeat this procedure for any other ports on the Print Server, or for any other logical printers you wish to use.

Client PCs can now be configured as described in *Chapter 4 - Client Configuration*.

Regulatory Approvals

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

CE Approval

CE Standards

This product complies with the 99/5/EEC directives, including the following safety and EMC standards:

EN300328-2

EN301489-1/-17

EN60950

We Hereby, Motorola Inc., declares that this Wireless Print Server Model Name :WPS870G is in compliance with the essential requirements and other relevant provisions of R&TTE Directive 99/5/EC.

CE Marking Warning

This is a Class B product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.