



802.11g Wireless Direct Attached Print Server

FPS-1100DG

User's Manual

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Revision

User's Manual for PLANET Wireless Direct Attached Print Server

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Chapter1 Introduction

1.1 Product Introduction

Thank you for purchasing and using our FPS-1100DG. This print server allows your printer to become a shared device on the network. It offers printing flexibility and manageability on your Local Area Network at an extremely low cost and with an absolute minimum setup and maintenance required.

1.2 Product Package

This package contains the following components:

- 1 x FPS-1100DG
- 1 x Power Adapter
- 1 x Driver and User's Manual CD
- 1 x Quick Installation Guide
- 1 x Dipole Antenna

1.3 Network Printing Architecture

This section illustrates how FPS-1100DG functions and operates on the network. Before you install and use FPS-1100DG, it is strongly suggested that you read this section completely, and select only the chapters you need according to your network operating system by "Contents of the User's Manual" in next section.

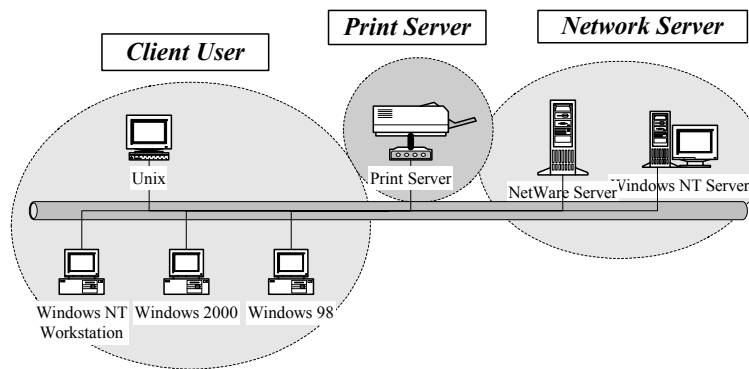
This section will first introduce the role every component plays in the network-printing environment.

Print Server

Client User

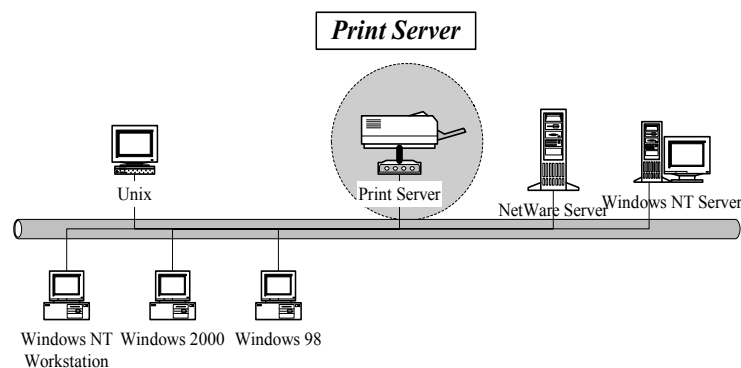
Network Server (optional)

Network Printing Environment

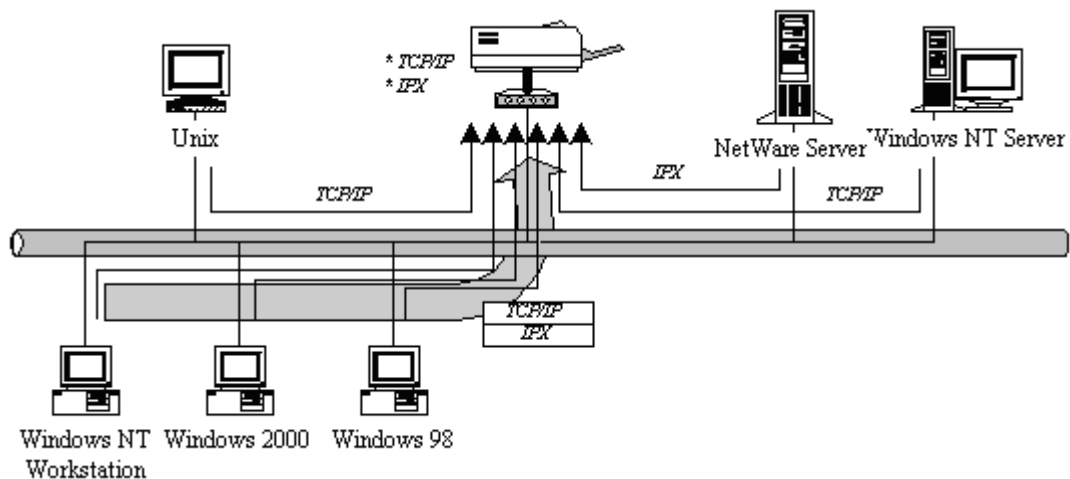


Detailed examples will then be illustrated through actual network environment.

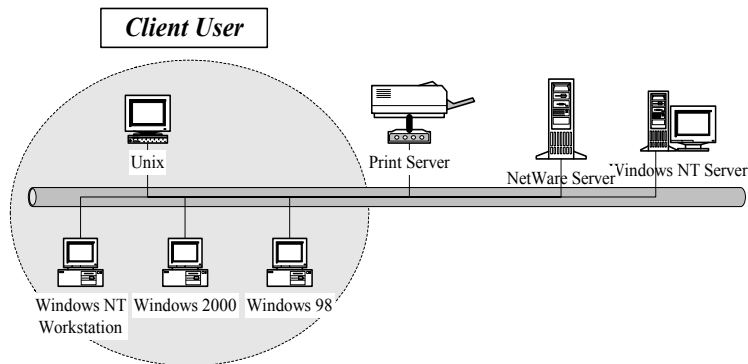
1.3.1 Print Server Network Functions



Because print server supports IPX, TCP/IP and AppleTalk network protocols, any networked computer can directly print to the print server from any of its installed protocol.



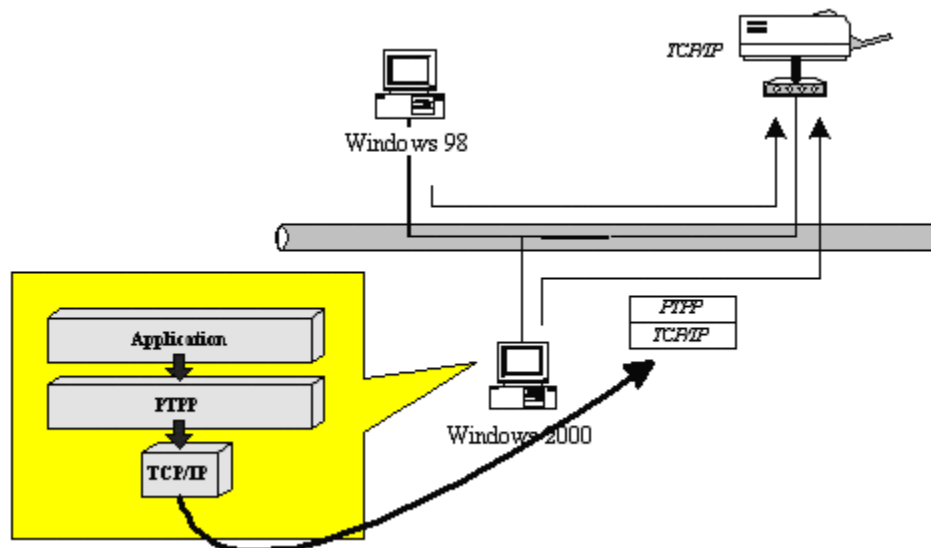
1.3.2 Network Printing Functions for Clients



Common operating systems for clients are classified as following:

Windows 95/98/Me/NT/2000/XP

Our print server system provides PTPP (Peer-to-Peer Printing) driver and utilities for Windows 95/98/NT/2000/XP users. PTPP (Peer-to-Peer Printing) supports TCP/IP protocol.



In the client installation procedure, after PTPP (Peer-to-Peer Printing Driver) is installed into Windows, the system will automatically (manual configuration is also allowed) search through all the print servers on the network, and then add their printing ports into Windows' printing port. (See below)

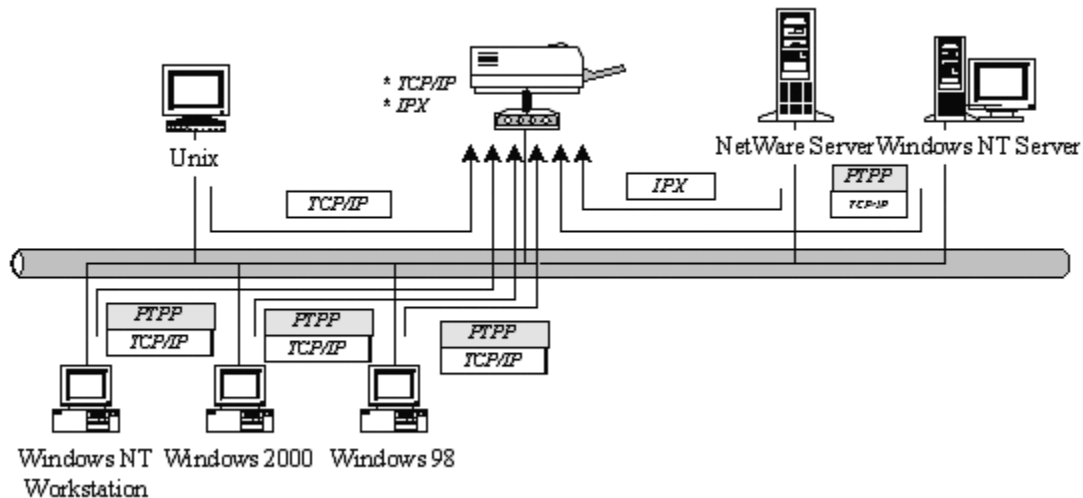
In NetWare environment, print server offers various printing modes like print queue, remote printer, etc.

1.4 Network Printing Environment

Common network environment are classified as following:

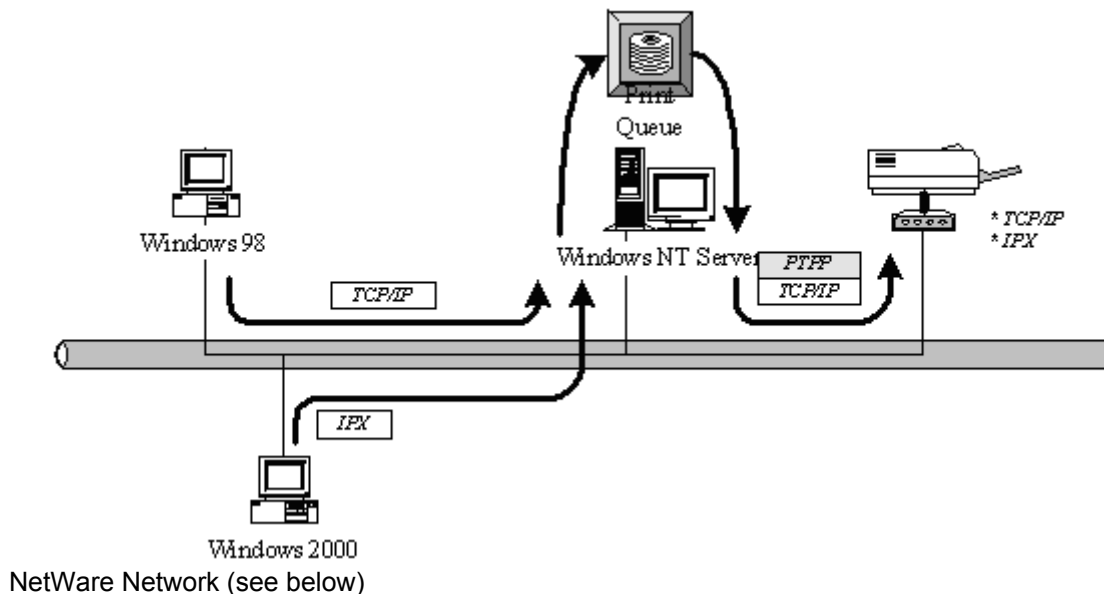
Windows Peer-to-Peer Network

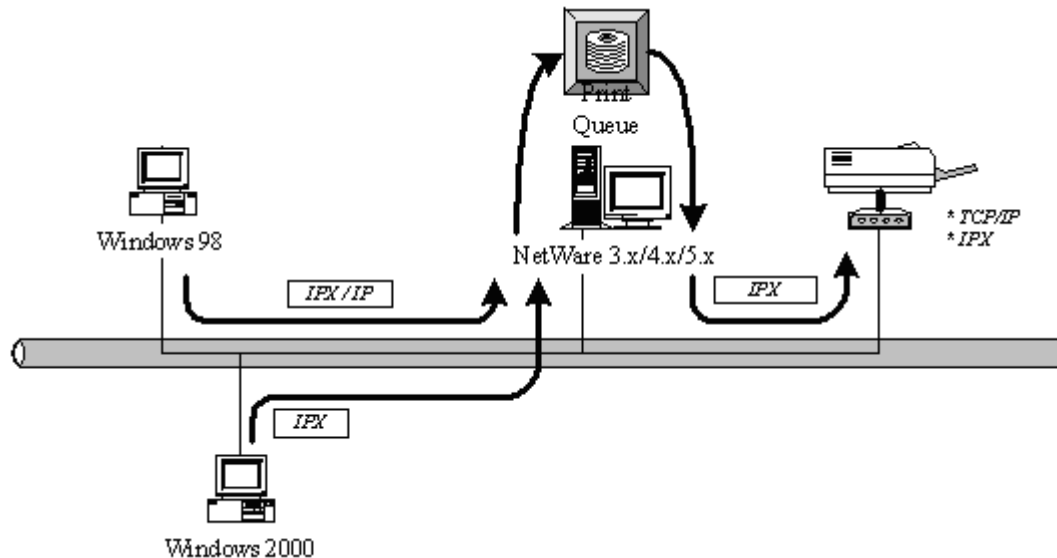
The client's PTPP driver will use TCP/IP protocol to print to print server.



Windows NT/2000 Network

Network printing function will become available after PTPP driver is installed into Windows NT/2000. Adding this printing function into Windows NT/2000 Server allows print queue, user authority management, and many other advanced features.





1.5 Contents of the User's Manual

Chapter 2 explains print server's hardware installation and configuration. It is strongly recommended for you to read.

The following chapters 3, 4, 5, and 6 introduces:

Chapter 3. Windows Peer-to-Peer Network

Chapter 4. Windows NT/2000 Server-Based Network

Chapter 5. NetWare Network

Chapter 6. UNIX System Network

You may select the appropriate chapters and sections to read depending on your network printing's requirement.

Chapter 7 and chapter 8 introduce print server's management and configuration utilities on Windows and Web Browser's environment respectively. You may select the appropriate management utility according to the administrator's computer platform.

Chapter 9 introduces Print Server's IPP Printing function and setup procedure. The IPP Printing provides a convenient way to print documents across the Internet by the IPP protocol.

1.6 Firmware & Printing Function

The print server provides a complete network printing solution. The feature set is listed below:

- PTPP (Peer-to-Peer-Printing)

- TCP/IP (LPR, SMB, Standard TCP/IP built-in Win2000/XP/Server2003)

- IPP Printing

- NetWare Bindery Printing

- AppleTalk

Chapter2 Hardware Installation

1. Make sure the power is OFF, then connect printer to the Print Server's printer port.
2. Connect the LAN cable to the RJ-45 port of the Print Server.
3. Connect the other end of the LAN cable to a switch or your PC directly.
4. Connect the supplied Power Adapter.
5. Please make sure the LAN LED is light on.

NOTE1: The wireless interface of FPS-1100DG is "Disabled" by default. If you want to activate wireless interface, please refer to section 7.10 Wireless to know more information for how to setup wireless interface.

NOTE2: MUST use the power adapter shipped with the print server, do NOT use any other power adapter from any sources.

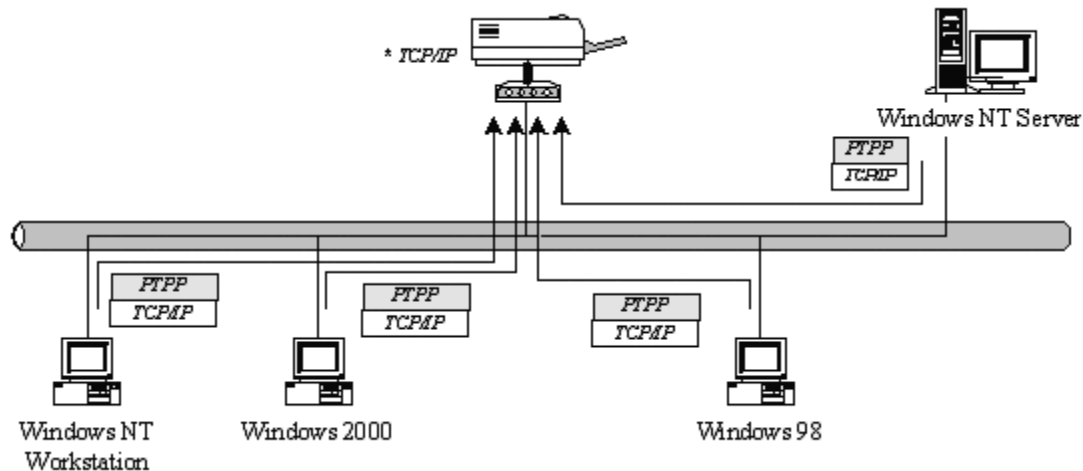
NOTE3: To prevent the compatibility problem between print server and a few printer, it is recommended that you power on the print server before the printer.

NOTE4: Please be sure your printer is not a host-base printer. This kind of printer must be connected to a PC directly, so they cannot work with Print Server. You may check the printer specification or the GDI Printer List in our bundle CD to know this printer can work with FPS-1100DG or not.

Chapter3 Windows Peer-to-Peer Network

3.1 System Architecture

Print server supports Windows Peer-to-Peer network printing mode, which is suitable for most medium and small network environments. Through quick and simple installation procedure, users can immediately enjoy the convenience of network printing.



Installation procedure is separated into following two parts:

1. Administrator Installation and Setup (refer to section 2 for more detailed information).

System administrators must:

- Install administrator's utilities into his/her computer.
- Configure print server from administrator's configuration utility.

2. Client Installation and Configuration (refer to section 3 for more detailed information).

Client users must install Windows PTPP driver (Peer-to-Peer Printing) for network printing.

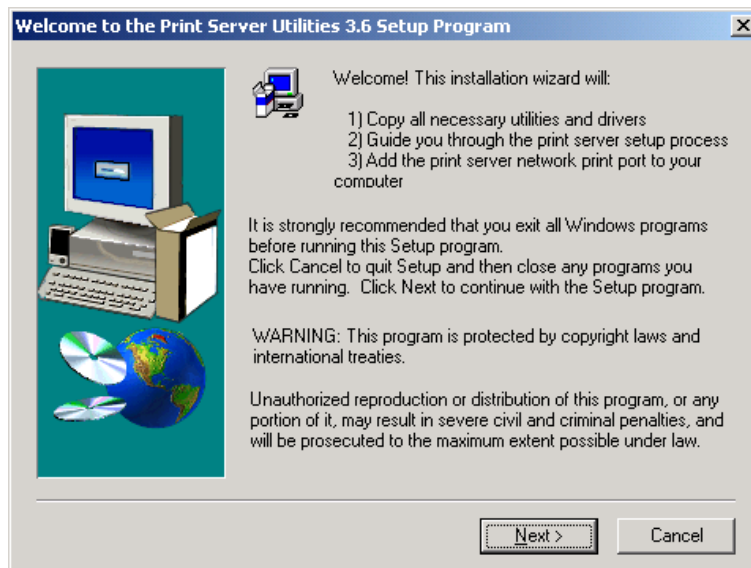
In addition, after PTPP is installed, the system will automatically search for all print servers on the network, and add the printing port of the print servers into Windows' printing port (refer to Network Printing Architecture in section 1.4 for more detailed information).

3.2 Administrator Installation and Setup

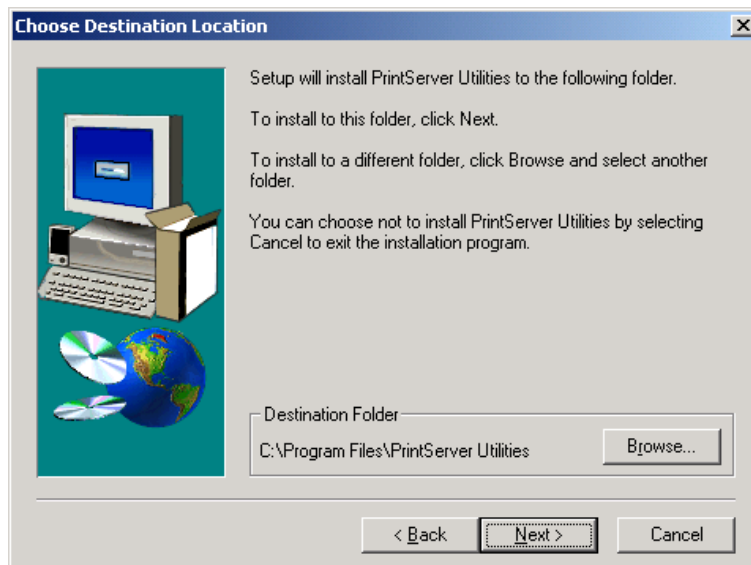
The Administrator Installation can be performed on Windows 95/98/Me/NT/2000/XP/Server2003 with the same user interface. Before the installation, please verify that your network protocol is installed on your PC (TCP/IP, IPX and/or NetBEUI). It will be helpful in your installation process.

1. Insert Drivers and User's Manual CD into the CD-ROM drive to initiate the autorun program. Once completed a menu screen will appear.

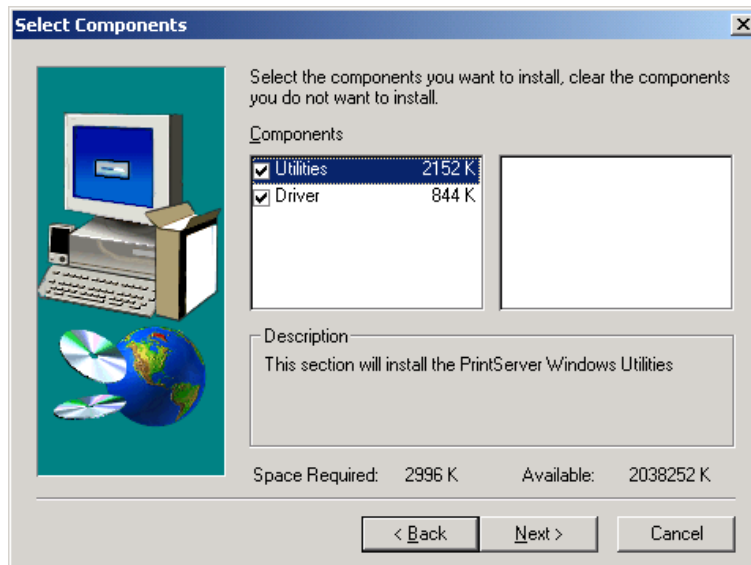
2. Click on "Administrator Installation" hyper link to initiate the installation. Or you can click the "Start" button and choose "Run". (Suppose "E" is your CD-ROM drive). When the dialog box appears, enter "E:\Utility\Setup.exe" and press enter key. You will see the dialog box as below. Please click "Next" to continue.



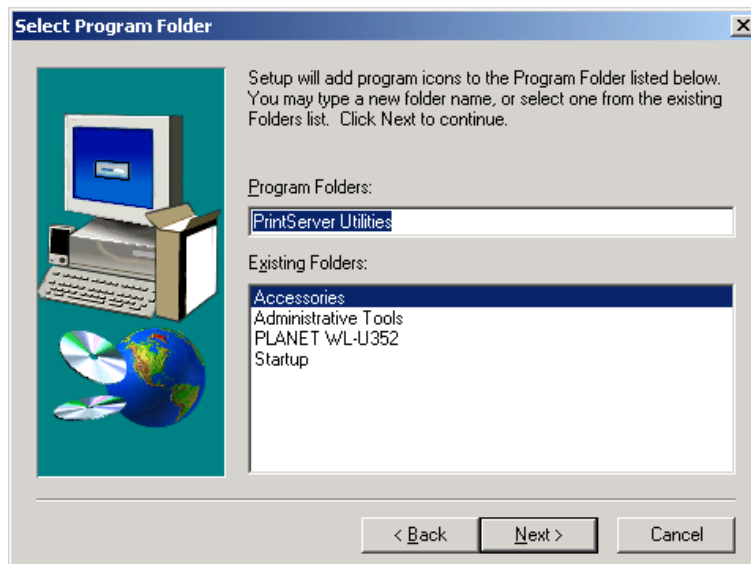
3. Specify the destination folder where the utility will be installed. Click "Next".



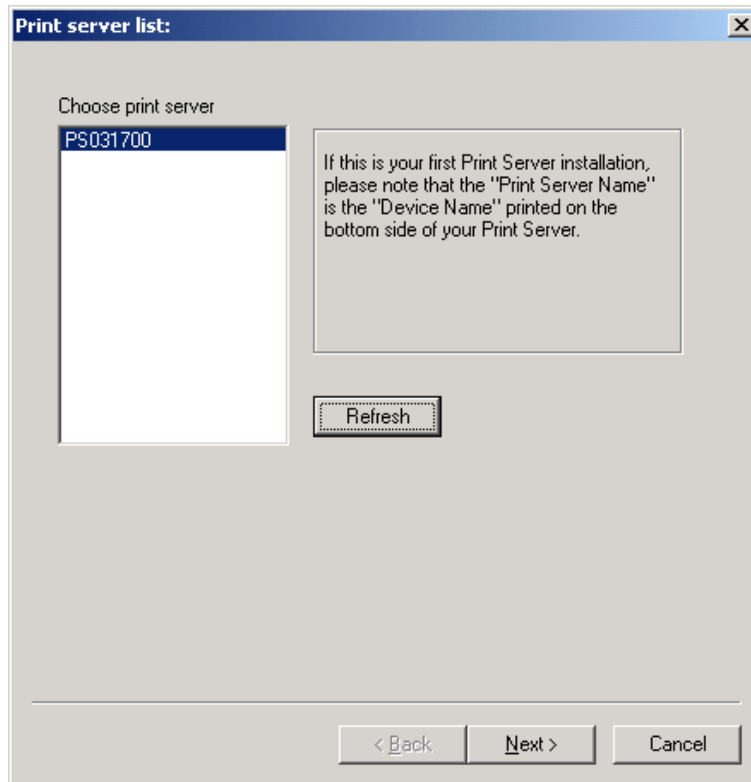
4. Select the components you want to install. It is highly recommended to install all provided components in administrator installation. Please click "Next".



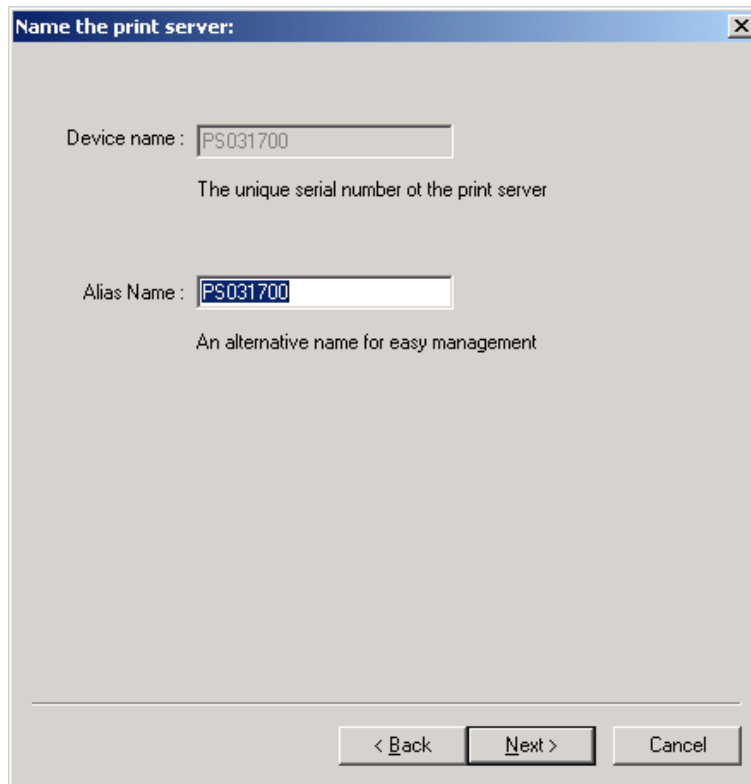
5. Specify the program folder name where the program icons will be add to. Please click “Next” to start installation.



6. For a while, the program will finish installing utility and driver you selected. Thus far you have completed the installation phase and prepare to configure the Print Server. The “Choose Print Server” dialog box will be displayed as following. Please select the print server and click “Next”.



7. "Name the print Server", you can assign an easy to memorize name for management. But note that, this name will be the "Identifier" for the Peer-to-Peer Printing.



NOTE: If this is the first time you configure the print server, the “Print Server Name” will be the same as the “Device Name” printed at the bottom of the print server.

8. You can either assign a fixed IP address for the print server or select “Don’t change” for configure it later by the configuration utility. Please click “Next”.

Network protocol configuration

TCP/IP

☐ Assign the Print Server an IP address

IP Address 192.168.2.2

☒ Don't change

You can configure later through the Print Server Administration Utility

< Back Next > Cancel

9. Configuration summary will display in this screen. Now, you have completed the “Print Server Setup”. By clicking “Finish”, your system will perform “Add network port” of the print server to your PC.

Add network port

Device Name : PS031700

Alias Name : PS031700

TCP/IP support : Enable

IP Address : 192.168.2.2

Port 1 : lpt1

Port 2 :

Port 3 :


Click [Finish] to add your Print Server's Network Port to your PC

< Back Finish Cancel

10. The "Setup complete" window is displayed to indicate that the Administrator Installation procedure is finished. Please click "Finish".

Setup Complete

Congratulation! You have completed the PrintServer Utilities installation procedure.



The Setup program has added Network port to this computer. The next step you have to do is to add a printer from the Printers program folder. For more detailed instructions, please refer to the User's Manual or the Quick Installation Guide.

< Back Finish

After the installation, you have completed the following tasks,

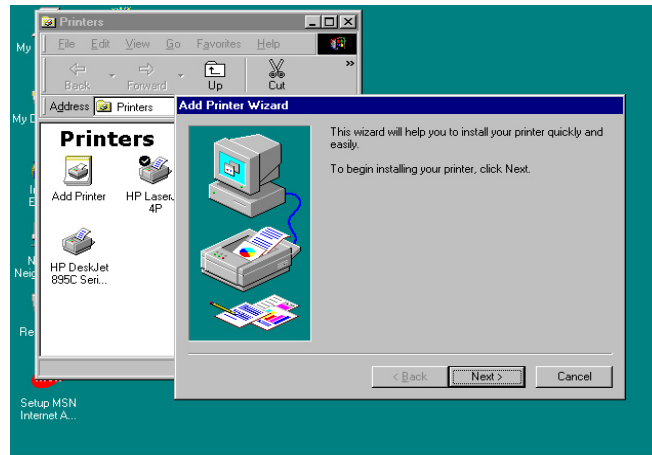
- Install utility and driver to the administrator's PC
- Configure the print server (including the print server name and network protocol)
- Add the network port of the print server to the administrator's PC

Now, you have completed the administrator's setup for most of the network environment. You can then perform the "*Client Installation*" procedure (section 3.4) on all client's sides of the network.

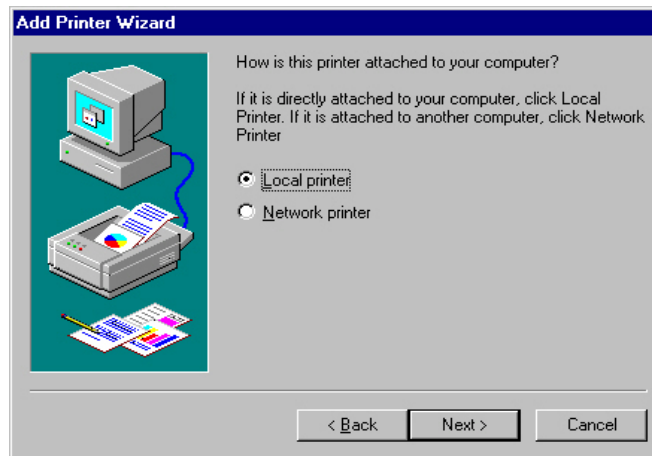
If you want to print from this administrator's PC to the print server, all you need to do is to perform Windows' standard "Add Printer" procedure as described below.

Step1. Click "*Start*" button, choose *Setting => Printers*

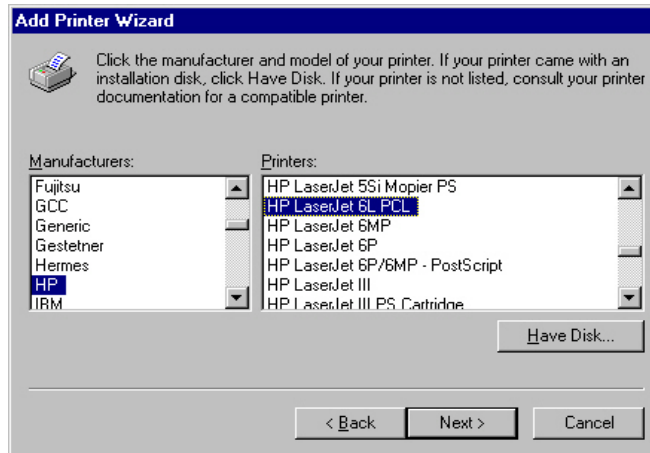
Step2. Double click "*Add New Printer*"



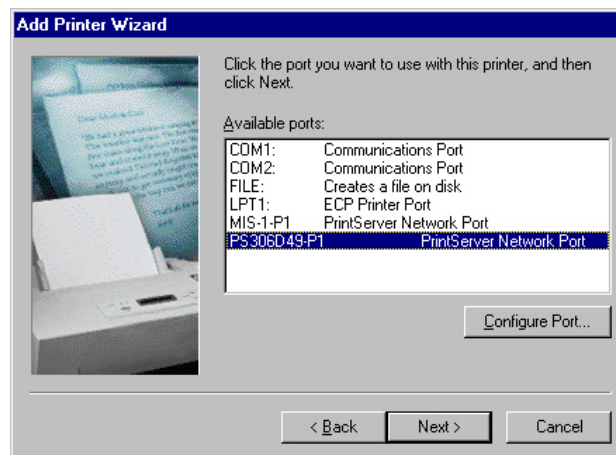
Step3. Select "*Local printer*" => click "*Next*".



Step4. Select a suitable printer manufacturer and model, then click "*Next*".



Step5. Choose the “*Print Server’s Network Port*” which was created by the administrator installation process and click “*Next*”.



Step6. Complete the rest of the questions to finish the network printer setup.

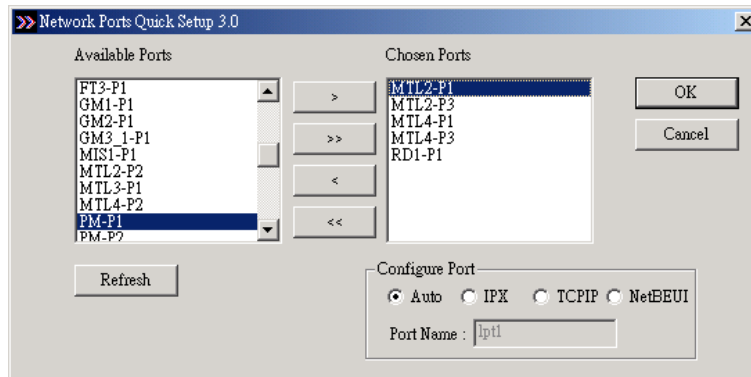
3.3 Administrator Utilities

After Administrator Installation is completed, there will be four utilities in print server’s Program folder.

1. Network Ports Quick Setup

Network Ports Quick Setup Utility offers a very simple method to add or remove print server FPS-1100DG’s printer port from the client’s computer.

If you have just installed another new FPS-1100DG on the network, you must run this program first. This program will search for new FPS-1100DG and allow you to add the new network printer port into client’s computer conveniently. Perform the standard Add Printer procedure, and you can print directly to the printer through the newly installed print server.



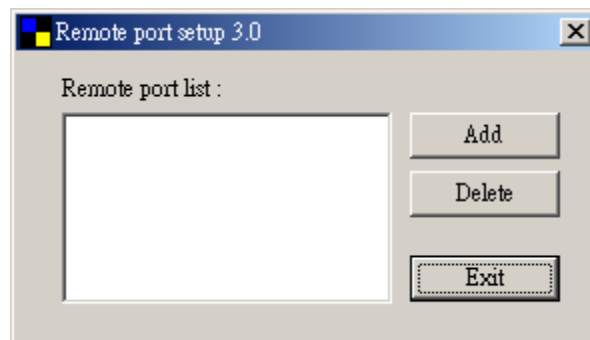
Please be aware that Network Ports Quick Setup Utility can only detect and configure all FPS-1100DG on the same network, it cannot search and configure print servers on other subnets across network segments. You must use Remote Ports Utility described in the next section to manage remote (across network segments) FPS-1100DG.

2. Remote Ports

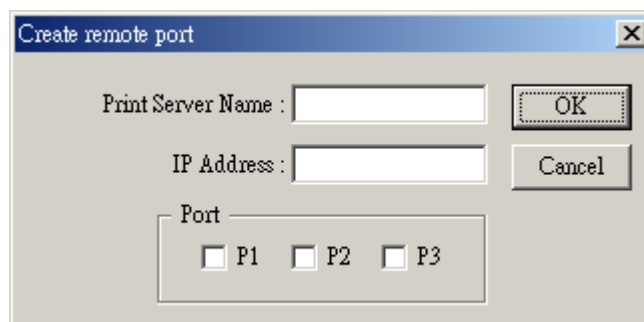
Remote Ports Utility offers a convenient way for you to manage and add printer port of the remote FPS-1100DG. From the assistant of this utility, you can print to other FPS-1100DG outside the subnet across network segment. However, please note that this function only supports TCP/IP network protocol.

Please follow the procedures described below:

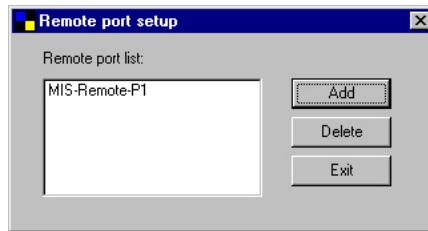
Step1. Run Remote Ports Utility



Step2. Press Add, then enter the FPS-1100DG's name, IP address, select used ports, and enter LPR queue name of each port.



Step3. Press OK to add the remote printer port into your computer's printer ports.



In order to use the remote printing function, you will have to proceed with normal Add Printer procedure and select your printer port as the newly added remote printer port.

3. Print Server Configuration

Complete print server management tool (see chapter 7 - Print Server Configuration).

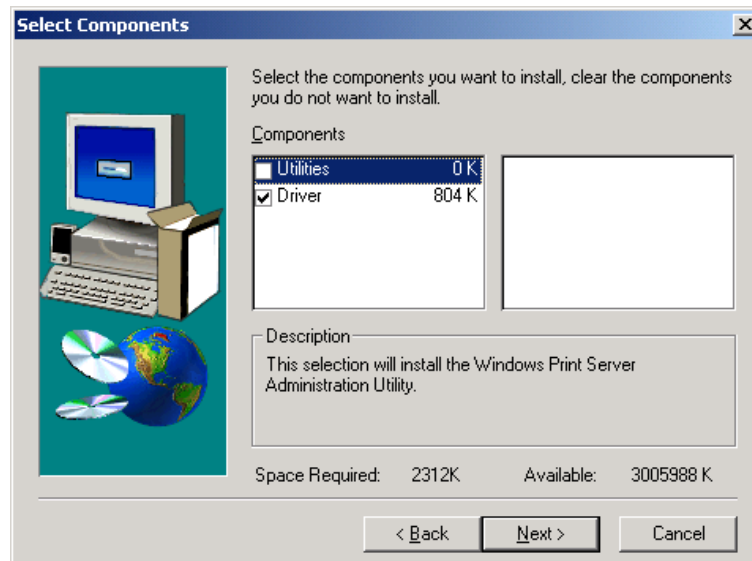
4. Uninstall

Assistant for removing all installed administrator software.

3.4 Client Installation and Setup

The Client Installation can be performed on Windows 95/98/Me/NT/2000/XP and Serve2003 with the same user interface. Before the installation procedure, please confirm that your PC has connected to the network and installed at least one network protocol (such as TCP/IP or NetBEUI) .

The installation is the same as Administrator Installation, besides the step 4. Please unselect "Utility" option and press "Next" to continue.

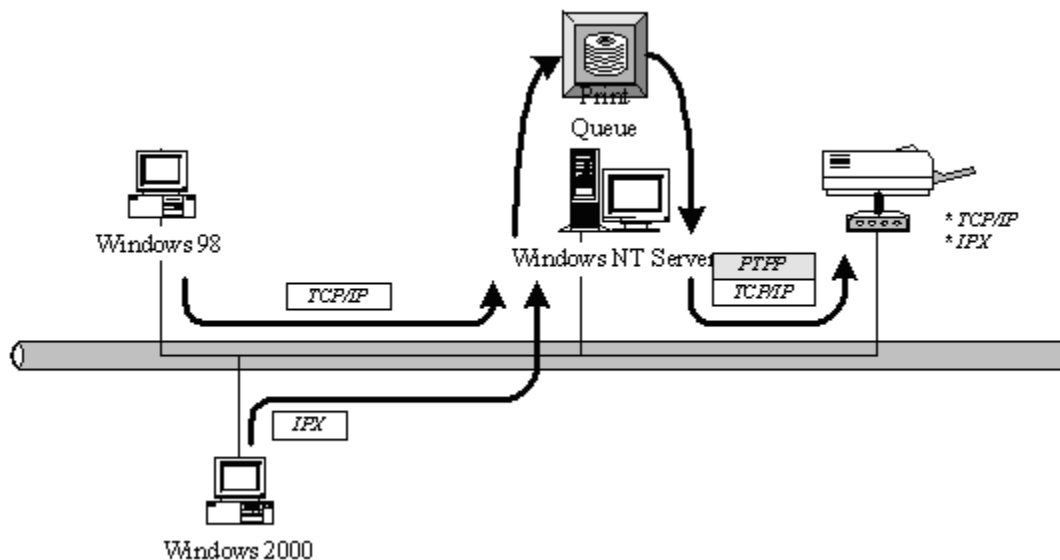


Clients just need to install Peer-To-Peer driver, so you don't need to install the Configuration Utility to the client PC.

Chapter4 Windows NT/2000 Network

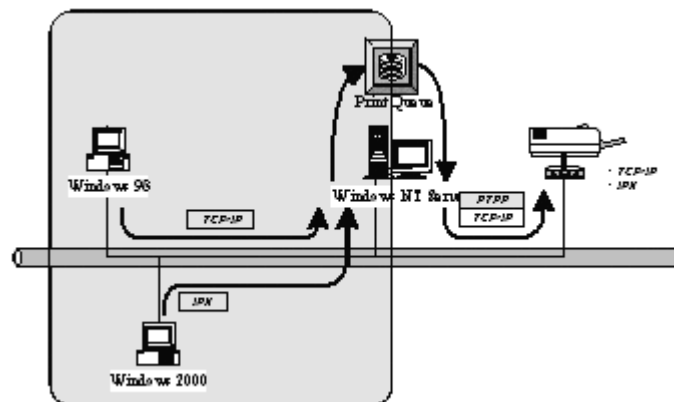
4.1 System Architecture

In Windows network environment, other than the Peer-to-Peer network printing architecture described in the previous chapter, we also offer the Server-Based Printing architecture for Windows NT/2000 server. Only one Windows NT/2000 is required to have Windows PTPP (Peer-to-Peer Printing) driver installed and share the printing service on the network. Other network users can simply connect to the server and access the shared printer. (see below)



4.2 Windows NT/2000 Server Installation and Setup

Please follow the procedures described below for installation and construct a peer-to-peer connection (PTPP) between Windows NT/2000 Server and Print Server.



Step1.

If this is your first time installing print server, please install the administrator software on Windows NT/2000 server first. Refer to section 3.2 for installation instructions.

If your network has already installed a working print server and your Windows NT/2000 server has not yet installed the PTPP driver, please install the client software. Refer to section 3.4 for installation instructions.

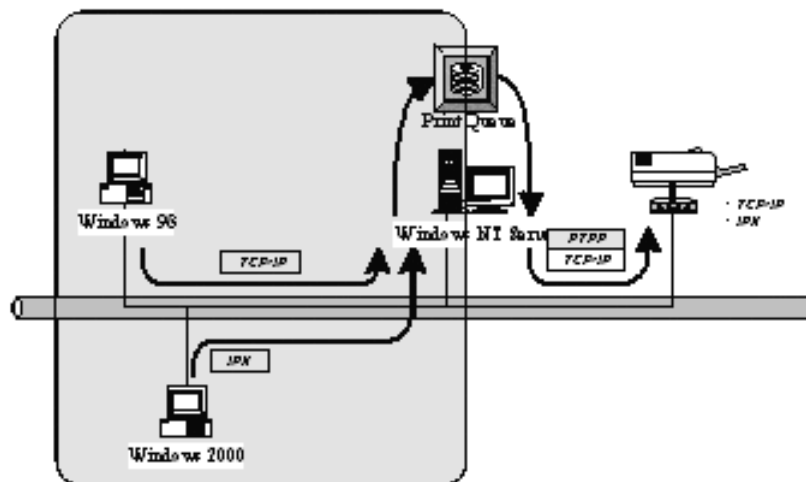
Step2.

Please add/configure the Peer-to-Peer Printing of the Windows NT/2000 network printer and verify that you can print from Windows NT/2000 to the print server by the installed PTPP driver.

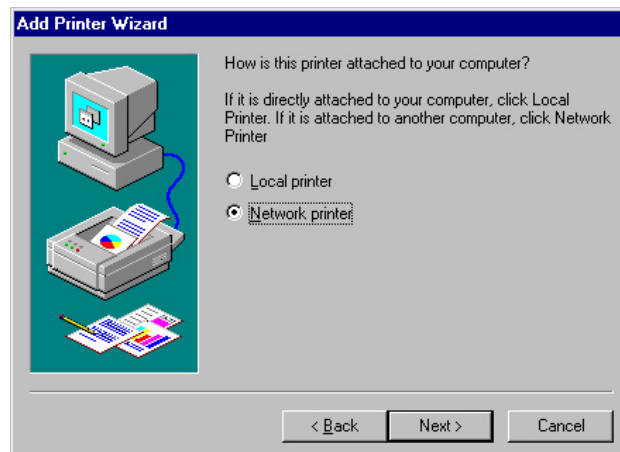
Step3.

Share the above server's printer to the network by performing the standard Windows printer sharing process.

4.3 User Installation and Setup



After server side's installation is completed, client side will be able to find the server's shared printer in Network Neighborhood. You only need to perform Window's standard **Add New Printer** procedure, select "**Network Printer**" shown in the screen below, and complete the configurations afterwards to access the shared printer.

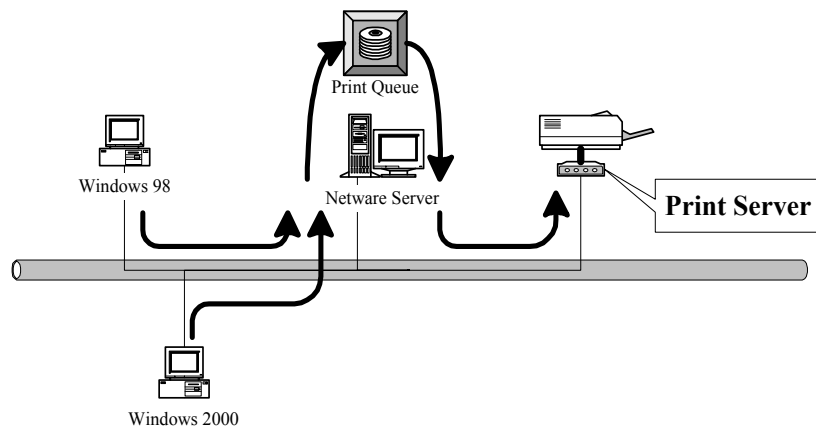


Chapter 5 NetWare Network

5.1 System Architecture

We implement NetWare print sharing functionality into the print server itself, thus allowing one or more printers attached by a print server to be connected to the network.

Embedded print server, which emulates the “queue management functionality” of NetWare print server, PSERVER program running on the NetWare server. A user first prints a job at a workstation, the job is routed to a NetWare server, the NetWare server stores the job in a print queue, then the print server gets the print job from the queue to printers.



Compare with NetWare printing functionality, the advantages of embedding the NetWare network printing functionality in the print server include:

- Installation is easier and quicker
- Network management is easier
- Printing performance is enhanced
- Relieve NetWare file server's burden
- Relieve the need of a workstation running the remote printer utility
- Improve productivity by locating the printer near the workgroup

Each print server should log into a NetWare server before servicing the print jobs. Each print server will occupy a user account with which it can log into the NetWare server.

5.2 NetWare 3.x/4.x/5.x Installation & Setup

Once your print server is connected to your Ethernet network, you can set it up for use with our configuration utility.

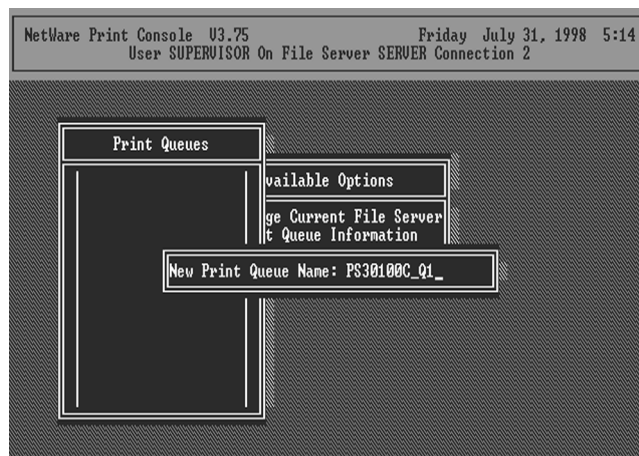
Please note that, you need to install the IPX protocol before the following procedure,

1. Run NetWare's PCONSOLE program to create a NetWare print server and print queue with the appropriate names.

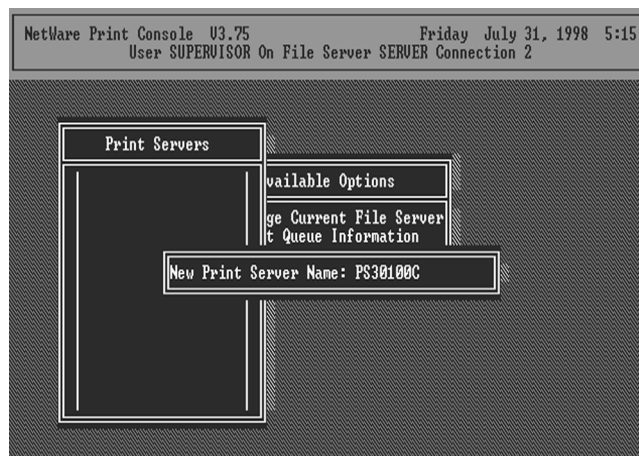
2. Refer to section 7.7 and use print server configuration utility, to configure print server attach to NetWare server print queue. Print server will get the print job from the print queue and print.

5.2.1 Installation with Pconsole

1. Run the NetWare PCONSOLE program.
2. Change the current file server, if necessary, using the Change Current File Server menu selection.
3. Choose the Print Queue Information menu selection.
4. Press the Insert key to add a new print queue.
5. Type in a print queue name, such as "PQ" or "Q1".

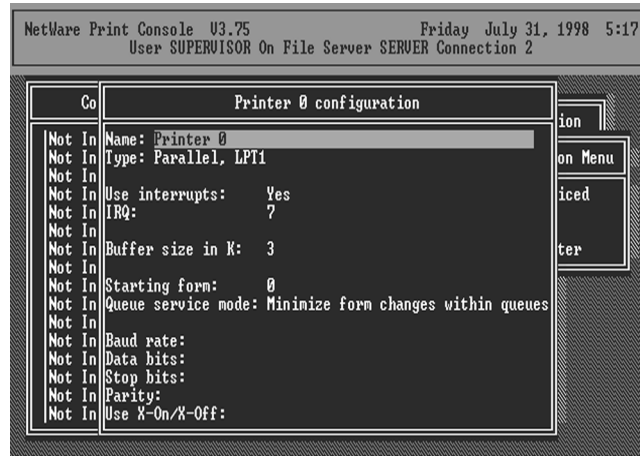


6. You have now successfully created the print queue that your print server will serve. Press the Escape key until the Available Options main menu is displayed.
7. Select Print Server Information.
8. Press the Insert key to add a new NetWare print server object. The print server name can be identical to the PSxxxxxx name printed on the label of the print server.

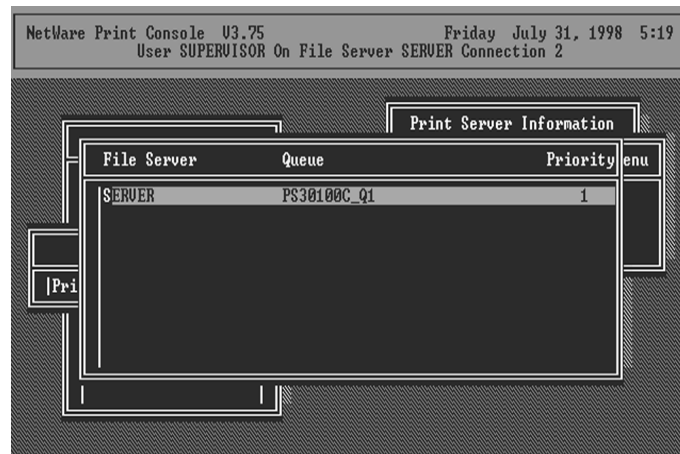


9. Press Enter to select the newly created print server.
10. Select Print Server Configuration.

11. Select Printer Configuration.
12. Select Printer 0 (or Printer 1, Printer 2), and press Enter, then select Parallel LPT1 (or LPT2, LPT3) in the Type field. If your print server is with only one port, you do not need to configure this Type field.



13. Press Escape, and answer Yes to the Save Changes question.
14. Select Queues Served by Printer, then select Printer 0 (or Printer 1, Printer 2) and press Enter.
15. Press *Insert* key and add your newly created print queue to the list of queues serviced by the printer. Enter a priority number for the queue service, or press Enter to accept the default.



16. Repeatedly press Escape to exit the PCONSOLE program.
17. After setup the NetWare server. Please write down those settings and refer to section 7.7 to enter the settings of print server.

NOTE: If the print server you have is with multiple printer connectors, you may create multiple print queues and printer objects.

Your print server should now be ready to use. You should be able to redirect printing to your print server using a CAPTURE command such as the one shown in the previous section.

Chapter6 UNIX System Network

6.1 Introduction

The print server is available for TCP/IP printing by Unix LPD (Line Printer Daemon) protocol. The LPD protocol originated with Unix release is based on the BSD version of Unix and supported under most versions of Unix.

This chapter explains how to configure the print server for TCP/IP operation, and how to modify configuration files on your Unix system to allow printing to the print server. The configuration examples in this manual follow the syntax for BSD based Unix systems. Please refer to the related system documentation for the correct syntax of your systems.

To configure the print server for LPD printing, perform the procedures below:

1. Enable Print Server's TCP/IP Support.
2. Set up Print Server's IP address.
3. Verify Print Server's IP Address.
4. Configure remote LPD printing on the host.
5. Print a test page.

In the next sections, we will describe these five procedures step by step.

6.2 Enable Print Server's TCP/IP Support

The default configuration of the print server is with TCP/IP support enabled. Anyway, you can configure the print server to enable TCP/IP support using the configuration program or PSETUP program in our CD-ROM included with the Print server.

6.3 Setup Print Server's IP Address

The print server must have a unique IP address in order to be recognized by the network. You can set up the IP address on the various Unix systems using any one of the following methods:

1. DHCP (Dynamic Host Configuration Protocol)
2. BOOTP (Bootstrap Protocol)

The print server will use the last three methods to obtain its IP address automatically if its IP address is configured as Auto (0.0.0.0).

6.3.1 DHCP

There are many Unix systems that support DHCP protocol, and the procedures to configure the DHCP server database are different. This manual does not describe the DHCP server configuration on the Unix systems. It is highly recommended that the DHCP server should be located on the same network as the print server.

6.3.2 BOOTP

If you have the BOOTP daemon, bootpd, running on your UNIX system that is accessible by the print server, you can use the BOOTP protocol to set up the IP address of the print server. We

recommend that the BOOTP server should be located on the same subnet as the print server. If you use Network Information Services (NIS) in your system, you may need to rebuild the NIS map with the BOOTP services before doing the following BOOTP configuration. To rebuild the NIS map, please refer to your system documentation.

To configure the IP address data for the BOOTP server, you will need to log in the host of BOOTP server as the superuser (root). Perform the following steps to add address entries.

1. Optionally, assign a name corresponding to the print server's IP address. You can add this address to the /etc/hosts file, by adding a line such as:

```
203.66.191.12      pserver
```

2. Add an entry to the host's /etc/bootptab file, similar to the following:

```
hostname:\

:ht=1:\

:ha=print_server_ethernet_address:\

:ip=print_server_ip_address:
```

Lines should be indented with tabs.

Where hostname is the device name of a print server, the ht=1 tag specifies the hardware type is Ethernet, the ha= tag specifies the Ethernet address of a print server, which is the Node ID located on the print server. The ha tag must be preceded by the ht tag. The ip= tag should correspond to the IP address you want to assign to the print server.

For example, a print server with the following configuration:

Node ID: 00304f010101 (this implies Ethernet

address is 00304f010101),

IP address: 203.66.191.12

The entry for this print server in the /etc/bootptab file should be:

```
PS010101:\

:ht=1:\

:ha=00304f010101:\

:ip=203.66.191.12:
```

6.4 Verify Print Server's IP Address

To verify that your print server is responding to the newly assigned IP address using a PING command:

```
ping ip-address
```

6.5 Configure Remote LPD Printing on the Host

The procedure you use to configure your Unix host(s) to allow printing to your network remote print server varies between different varieties of Unix. The procedure below can be used for Unix variants that are related to BSD Unix, such as SunOS or Linux. For other versions of Unix, consult your system documentation, keeping in mind that:

1. The print server should be treated as a BSD networked print server host.
2. The host name should be the name (or IP address) that you have assigned to the print server.
3. The printer name (or queue name) on the remote host should be lpt1, lpt2 or lpt3, the name of the printer port on the print server.

You will need to perform the tasks below, logged in as the superuser (root). To configure your Unix host for printing,

1. Optionally, assign a name corresponding to the print server's IP address. You can add this address to the /etc/hosts file, by adding a line such as:

```
203.66.191.186      pserver
```

2. Create a spool directory for the printer in the same directory where spool directories are normally kept on the machine, such as /var/spool or /var/spool/LPD:

```
mkdir /var/spool/LPD/pserverd
```

```
chown daemon /var/spool/LPD/pserverd
```

```
chgrp daemon /var/spool/LPD/pserverd
```

```
chmod 775 /var/spool/LPD/pserverd
```

3. Add an entry to the host's /etc/printcap file, similar to the following:

```
printer-name:\
```

```
:lp=:\
```

```
:rm=203.66.191.186:\
```

```
:rp=lpt1:\
```

```
:lf=/var/spool/LPD/pserverd.log:\
```

```
:sd=/var/spool/LPD/pserverd:\
```

```
:mx#0:
```

Lines should be indented with tabs. More than one printer name can be used, with variants separated by vertical bars (name1|name2).

The `rm=` entry should correspond to the IP address you have assigned to the print server. You can also use a host name if you have assigned one in the `/etc/hosts` file.

The `sd=` entry should correspond to the spool directory you created in the previous step.

The `rp=` entry should correspond to the port name of the remote printer. The values should be one of `lpt1`, `lpt2` or `lpt3` depends on the printer port.

The print server should now be available for printing from your Unix host.

Chapter7 Configuration Utility

7.1 Introduction

This chapter introduces FPS-1100DG system configuration utility in Windows environment. This utility is automatically installed during Windows Administrator Utility installation procedure - refer to section 3.2 and 3.3.

This utility provides the most complete management and configuration functions on FPS-1100DG. This utility only provides configuration functions for print server itself; it does not include configuration functions for client side or other file server or NetWare server in the network environment.

The Configuration Utility provides the following configuration and management functions:

Search Print Server: Search Available FPS-1100DG and FPS-3120 on the Network

Print Server Status: Print Server Network Status

General Configuration: General Information of print server

TCP/IP Configuration: IP Address and DHCP Server Configuration

NetWare Configuration: NetWare Printing Configuration

AppleTalk Configuration: AppleTalk Protocol Setting

System Configuration: Print Server Network Ability Setting and Firmware Upgrade

Wireless Configuration: Wireless LAN Configuration.

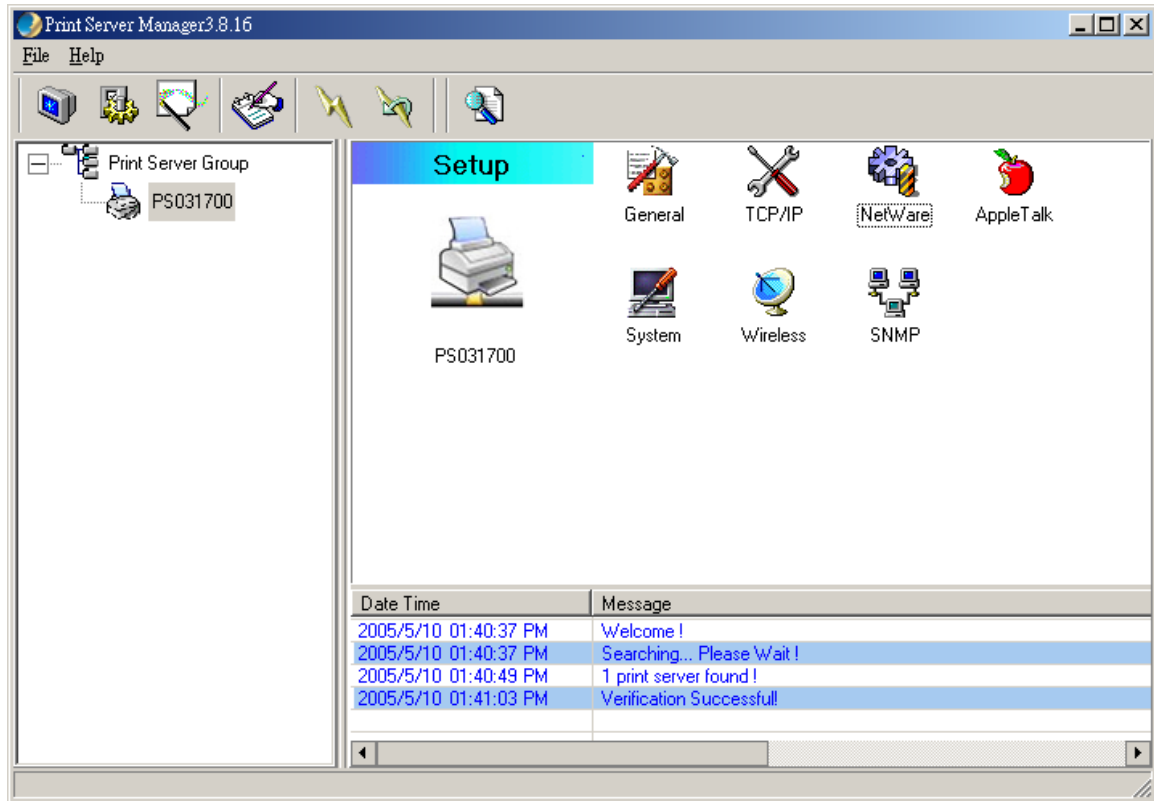
SNMP Configuration: SNMP monitor configuration


Setup Wizard: Guide You Through All the Settings

Report: List the Status of All Available Print Servers on the Network

We will explain each function separately in the following section.

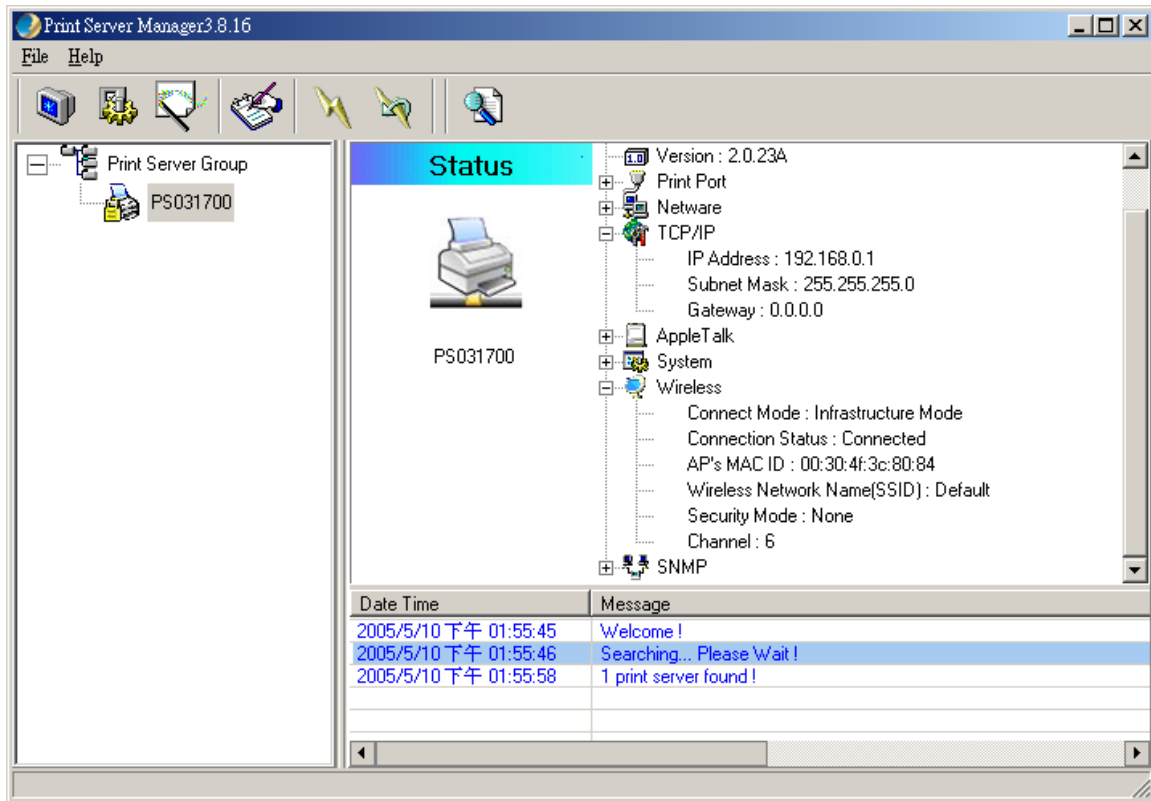
7.2 Search for All Available Print Server




Every time when you run print server's configuration utility, click the "Search" icon  on the tool bar. The configuration utility will delay for several seconds because the utility is using system's available network protocols to search for all print servers on the network. All available print servers will be listed under "Print Server Group" on the left side of the window.

You must select the print server you would like to configure from the list. The system will, at the same time, display the selected print server's status on the right side of the window.

7.3 Status of Print Server



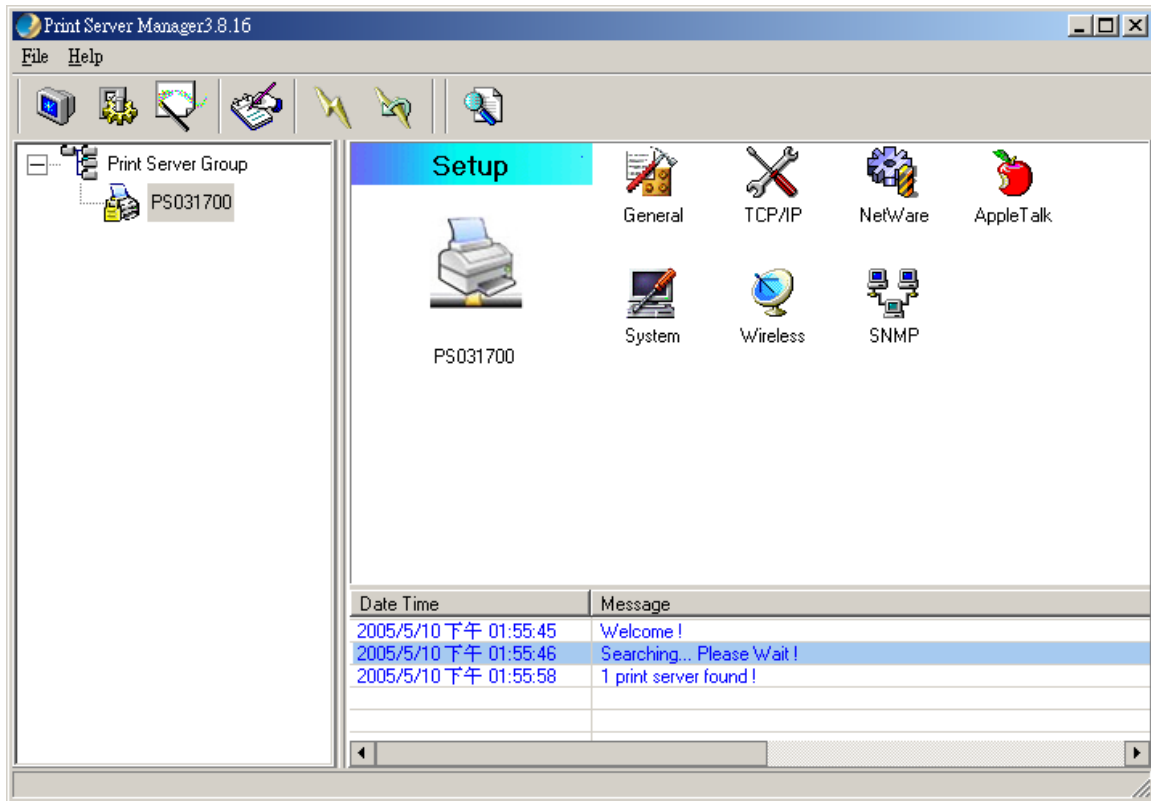
Click “Status” icon  on the tool bar, the status of the current selected print server will be showed on the right side of the window.


The information of the print server displayed are MAC ID, model type, firmware version, status of each printer port, NetWare file server name, NetWare file server polling interval, NetWare printer queue names, IP address, subnet mask, default gateway, AppleTalk printer type, AppleTalk zone and print server printing ability...etc.

You can refresh the print server’s status by pressing the “Refresh” icon .

You can restart the print server by pressing the “Reboot” icon .

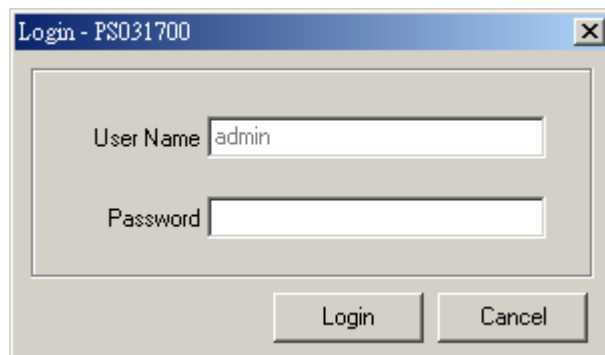
7.4 Setting up the Print Server



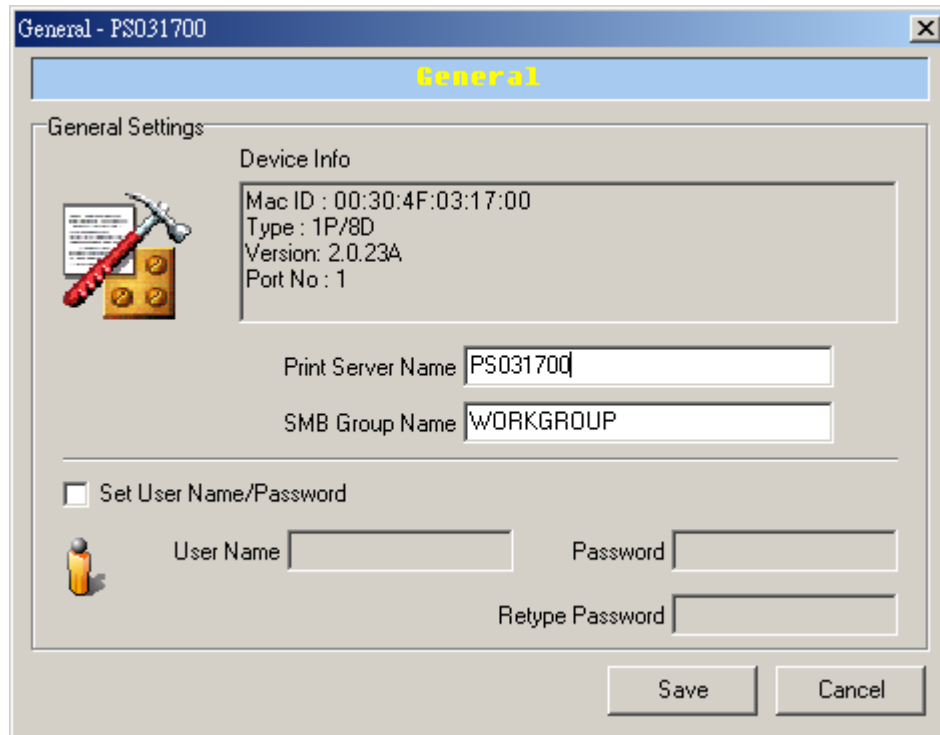
Click "Setup" icon  on the tool bar, the setup items of the current selected print server will be showed on the right side of the window.

You can modify all settings of the print server here.

When you first time into one the configure options, system will ask you enter Password. The default Password are "1234".



7.5 General Configuration



General - PS031700

General

General Settings

Device Info

Mac ID : 00:30:4F:03:17:00
Type : 1P/8D
Version: 2.0.23A
Port No : 1

Print Server Name PS031700

SMB Group Name WORKGROUP

☐ Set User Name/Password

User Name Password Retype Password

Save Cancel

Double Click "General" icon and the General configuration window will pop-up.

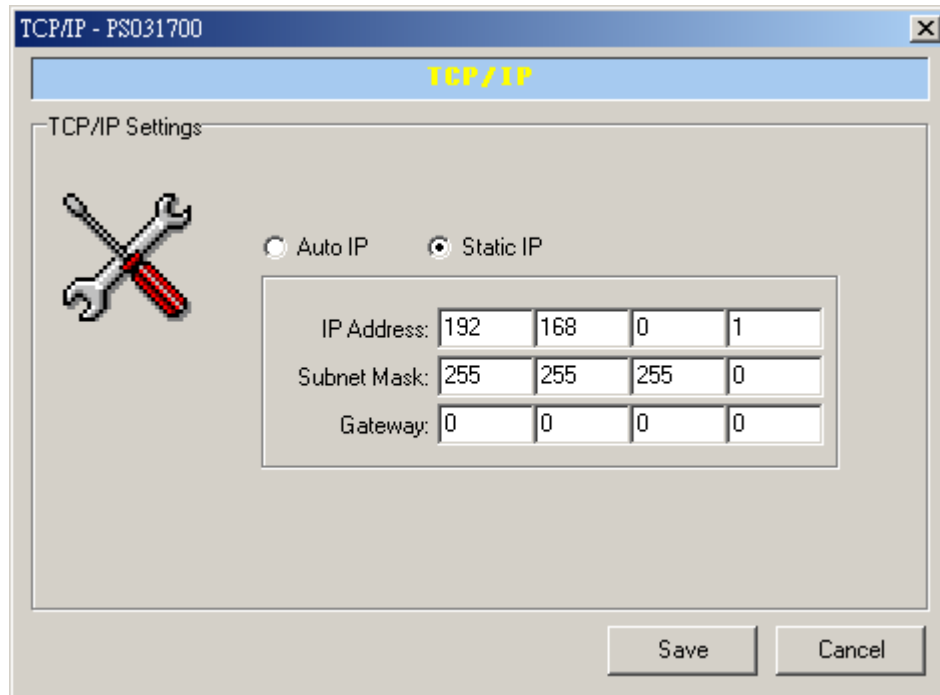
You can see basic print server information in this page. You also can configure the "Print Server Name", "User Name" and "Password" here.

Printer Server Name: Name of the print server. You can use this name to identify the print server when you are searching for the print server by the administration and client utilities.

SMB Group Name: Name of your network. PCs can find this printserver in Network Neighbor and attach to this printserver as a Network Printer when they are in the same Workgroup

Set User Name / Password: You can change the Password as your mind. Before changed, it will keep use default value.

7.6 TCP/IP Configuration

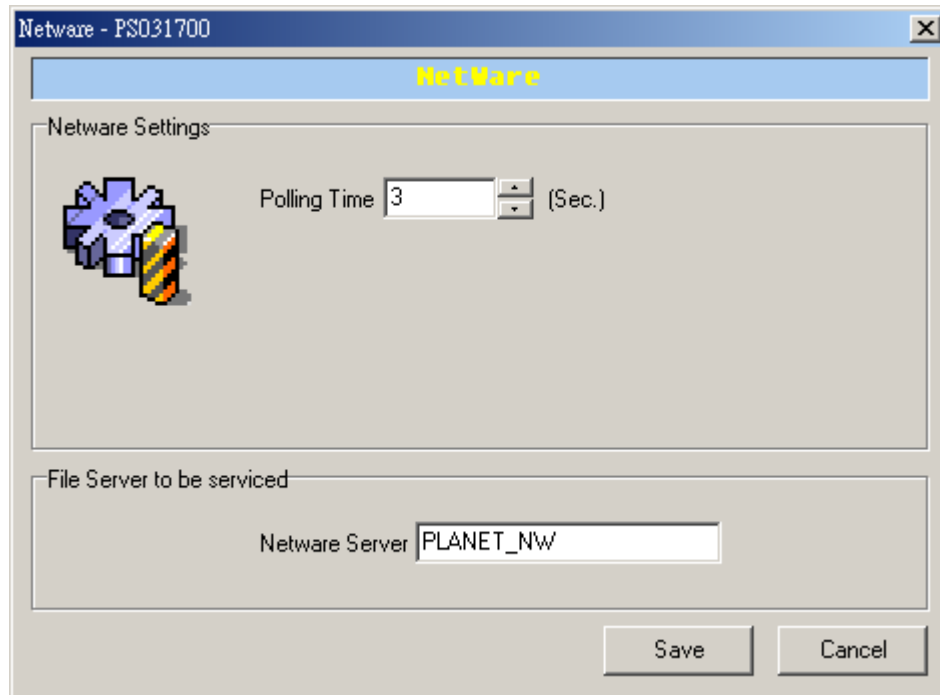


Double Click "TCP/IP" icon and the TCP/IP configuration window will pop-up.

If there is a DHCP Server in your LAN. You can configure the print server to automatically obtain an IP address from DHCP server. Or you can manually specify a static IP address to this print server .

If you need the print server to automatically obtain an IP address from LAN DHCP server, select "Auto IP". Or you can select "Specify IP" to manually assign "IP Address", "Subnet Mask" and "Gateway" for the print server.

7.7 Netware Configuration



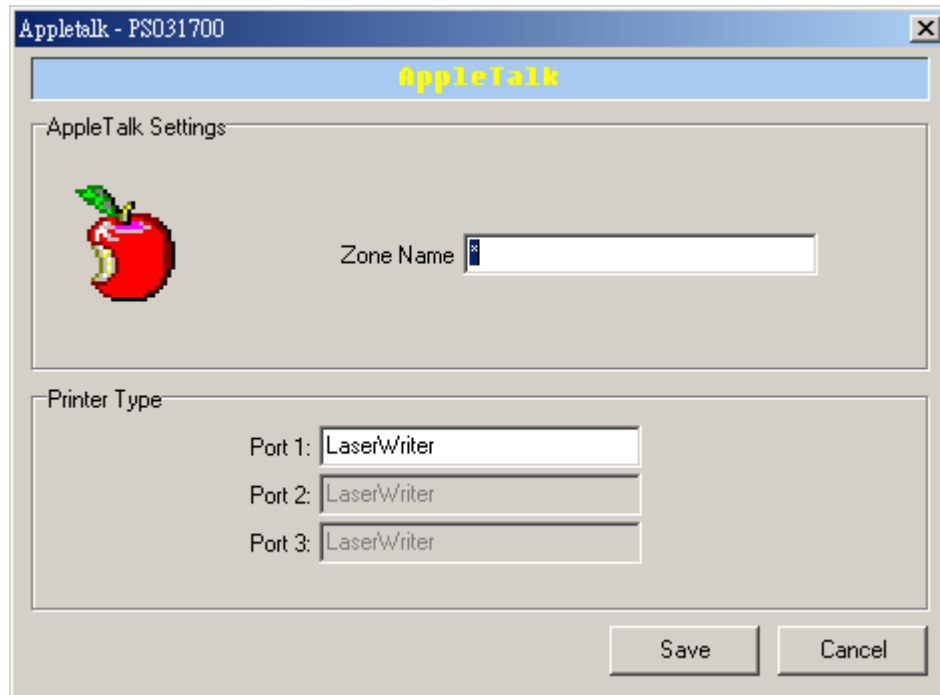
Double Click "NetWare" icon and the NetWare configuration window will pop-up.

This print server supports NetWare Bindery Printing method. The print server periodically polls the NetWare server printer queues for printing jobs. You have to assign the NetWare server name, print server polling interval and the name of queue on the NetWare server for each printer port.

Polling Time is the polling interval of the print server for waiting printing jobs on the NetWare server. Default is 3 seconds.

NetWare Server is the name of the NetWare file server that provides printer queues.

7.8 AppleTalk Configuration



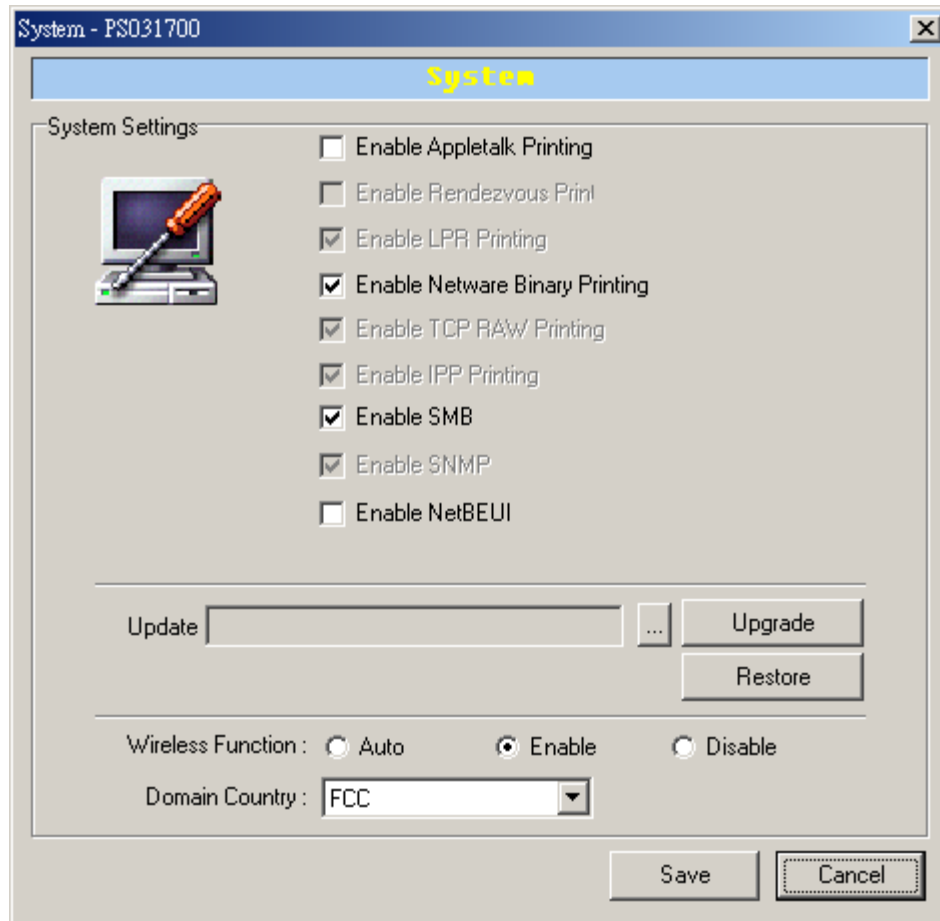
Double Click "AppleTalk" icon and the AppleTalk configuration window will pop-up.

AppleTalk is a data communication protocol often used by Macintoshes. The print server can use these parameters to join the AppleTalk network and share the printer to other AppleTalk workstations. You have to setup the "Zone Name" and "Printer Type" for each printer port of this print server.

Zone Name: Print server has to join zones of AppleTalk before it can be shared to other workstations. Only workstations in the same zone can share the printer. If you want to share the printer to all workstations in all Zones, you should enter only "*" in the "Zone Name" field.

Printer Type, the type of printer attached to each printer port. You can get the printer type from the manufacturer of the printer.


7.9 System Configuration



Double Click “System” icon and the System configuration window will pop-up.

In the System configuration page, you can select to enable/disable each printing protocol, assign name for each printer port of this print server and upgrade the new firmware for this print server.

Upgrade Firmware: You can use this “Upgrade” tool to update the newest firmware of the print

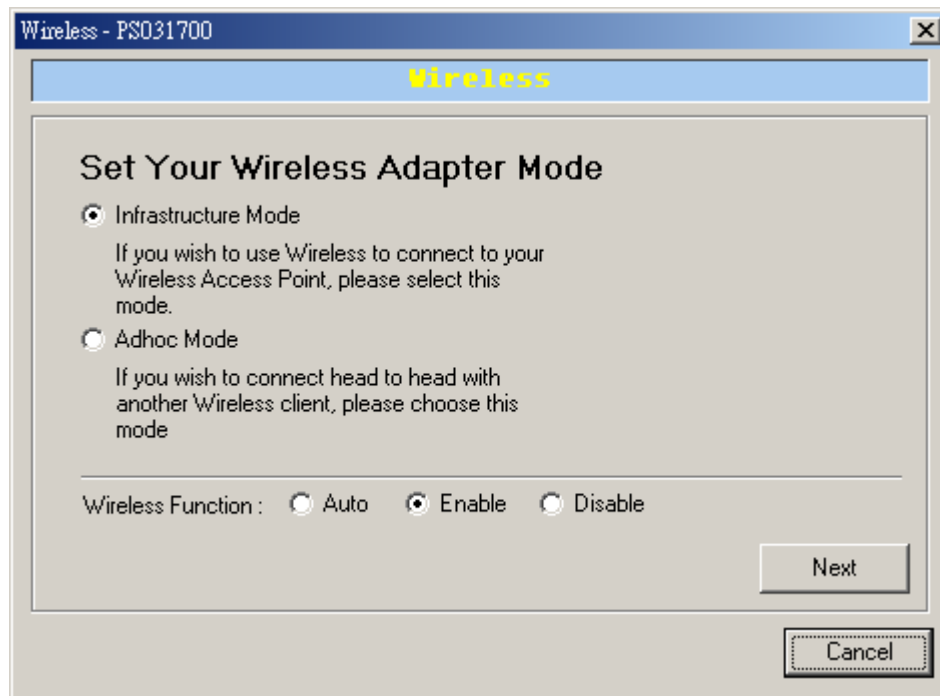
server. Click  button and select the correct firmware in you PC’s storage. After selecting the firmware file, click the “Upgrade” button and wait for finish the firmware update process. If you want to reset the Print Server to default factory settings, please click “Restore”.

Wireless Function: You can select “Enable” or “Disable” to manually enable or disable the wireless function. If you manually enable wireless function, the print server wireless interface will be always enabled and Ethernet interface will always disabled, and vice versa. You also can select “Auto” to let the print server automatically decide to enable or disable the wireless function. The print server only can work in either Ethernet or Wireless interface. It cannot work in both interface at the same time. When the print server starts up, it will auto-detect the LAN port is connect to a network device or not. If the print server is connected to an active network by Ethernet cable when starting up, the print server will run with Ethernet interface. If the print server LAN port is not connected when starting up, the print server will run with wireless interface. This setting is “Disable” in default.

Domain Country: Please select the suitable Domain of your country for wireless operation.

7.10 Wireless

Due to wireless interface is “Disable” in default. If you want to use the print server through wireless interface, please set up the print server through Ethernet firstly and make sure your wireless LAN settings are correct and Wireless Function is set to “Auto”. After configure the wireless LAN settings, unplug the Ethernet cable and power off/on the print server, then you can start to use the print server via wireless interface. If the wireless configuration does not work, please plug the Ethernet cable again, restart the print server and configure the print server through Ethernet until the wireless LAN settings are correct. When the Wireless interface work correctly , if you don't need to work with Ethernet interface, you may change the Wireless Function to “Enable” to disable Ethernet interface.



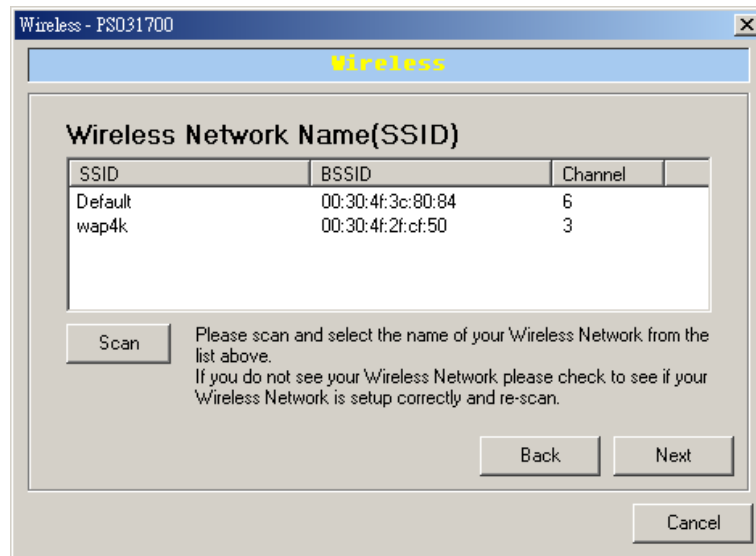
You may select either Infrastructure Mode or Ad-hoc Mode for this printserver to join your wireless network.

7.10.1 Infrastructure Mode

1. If you are select “Infrastructure Mode” and click “Next” in section 7.11, you will see the dialog box below. You can select first option to scan your wireless network to search the Access Point that you want to connected. Or you can select the second option and enter the SSID you had known into the field. Please choose one of them and click “Next”.



2. When you are select first option to continue, you will see this screen for scan the wireless network. Please select the wireless device that you want to connect and click "Next". If you don't have see the wireless device that you would like to connected, please click "Scan" to search again.



3. This print server supports WEP and WPA-PSK security mode. If you want to use WEP encryption to protect your wireless network, you have to select "WEP(ASCII)" or "WEP(HEX)". If you want to use WPA-PSK, you have to select "WPA-shared key". The wireless security setting should be the same with other wireless devices in the same network.

Wireless - PS031700

Wireless

Wireless Security(WEP)

Security Mode: **Disable**

PassPhrase:

☒ 64 bit ☐ 128 bit

☒ Key1

☐ Key2

☐ Key3

☐ Key4

If you wish to activate (WEP) wireless security or your wireless network is already running wireless security you may configure your settings here.
(Note)All Wireless Devices on your network must use the same WEP key to function correctly.

Back Next

Cancel

WEP Security Mode:

Wireless - PS031700

Wireless

Wireless Security(WEP)

Security Mode: **WEP(ASCII)**

PassPhrase:

☒ 64 bit ☐ 128 bit

☒ Key1

☐ Key2

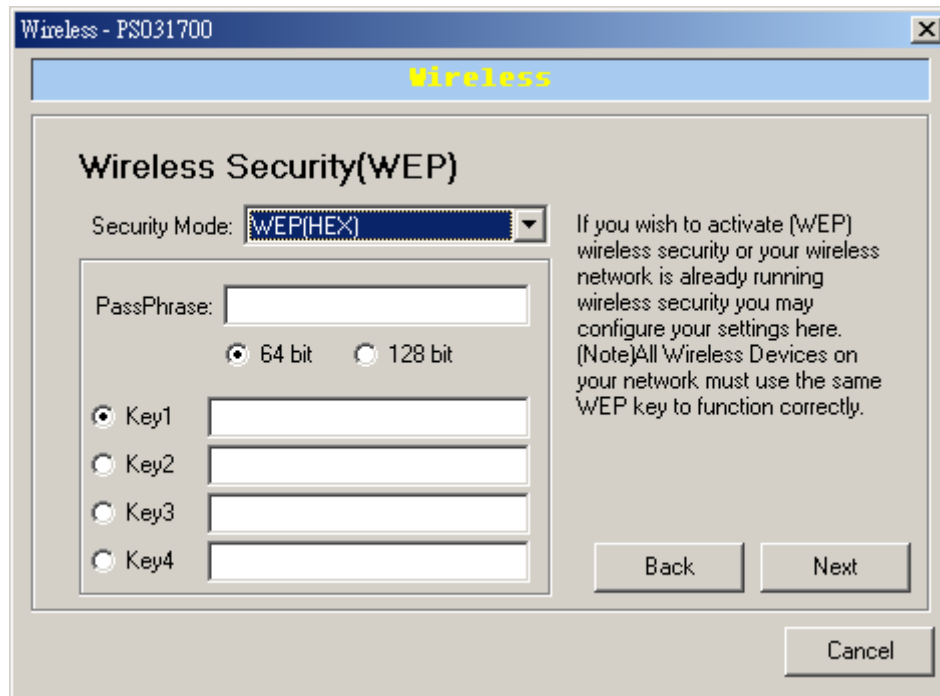
☐ Key3

☐ Key4

If you wish to activate (WEP) wireless security or your wireless network is already running wireless security you may configure your settings here.
(Note)All Wireless Devices on your network must use the same WEP key to function correctly.

Back Next

Cancel

The image shows a Windows-style dialog box titled "Wireless - PS031700". Inside, there's a yellow header bar with the word "Wireless" in blue. Below that, the main title is "Wireless Security(WEP)". The "Security Mode:" dropdown menu is set to "WEP(HEX)". To the right of this, a text block explains that if WEP is activated, all wireless devices on the network must use the same WEP key. On the left, there's a "PassPhrase:" text box, followed by radio buttons for "64 bit" (selected) and "128 bit". Below these are four radio buttons labeled "Key1", "Key2", "Key3", and "Key4", each followed by a text box for entering a key value. At the bottom right, there are "Back", "Next", and "Cancel" buttons.

Wireless - PS031700

Wireless

Wireless Security(WEP)

Security Mode: WEP(HEX)

If you wish to activate (WEP) wireless security or your wireless network is already running wireless security you may configure your settings here. (Note)All Wireless Devices on your network must use the same WEP key to function correctly.

PassPhrase:

☒ 64 bit ☐ 128 bit

☒ Key1 ☐ Key2 ☐ Key3 ☐ Key4

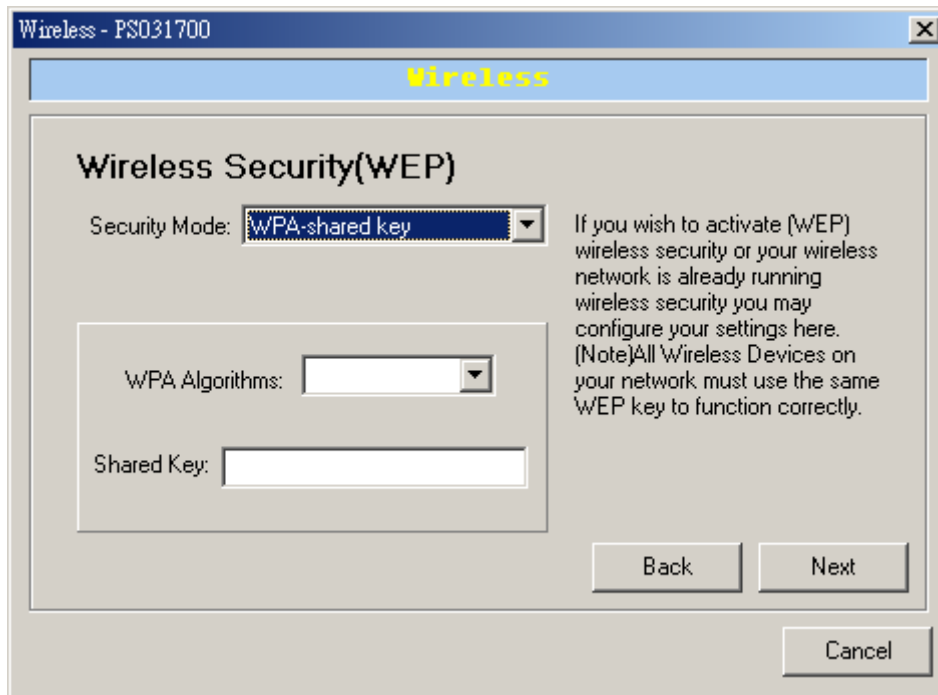
Back Next Cancel

You can select "64 bit" or "128 bit" length and "Hexdecimal" or "ASCII" format for the encryption key. Longer key length can provide stronger security but worth communication performance. Enter four key values by following the rules below and select one key as the default key.

- PassPhrase – A passphrase simplifies the WEP encryption process by automatically generating the WEP encryption keys for the print server. This setting is only valid when the security mode is in "WEP(HEX)".
- Key 1 to Key 4 – If the key length is 64-bit, enter 10-digit Hex values or 5-digit ASCII values as the encryption keys. For example: "0123456aef" or "Guest".

If the key length is 128-bit, enter 26-digit Hex values or 13-digit ASCII values as the encryption keys. For example: "01234567890123456789abcdef" or "administrator".

WPA-shared key Security Mode:

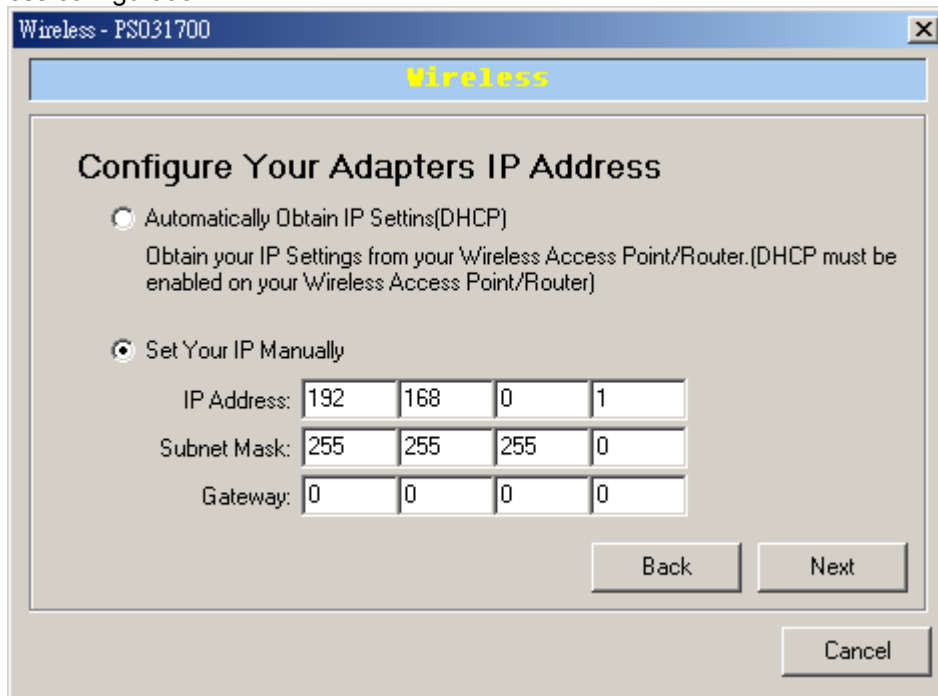


When "WPA-shared key", also named "WPA-PSK" requires users to select the advanced encryption methods, i.e. TKIP and enter a set of shared key.

- WPA Algorithms - TKIP (Temporal Key Integrity Protocol) changes the temporal key every 10,000 packets. This insures much greater security than the standard WEP security.
- Shared Key - Enter 8 to 63 digits of ASCII format to be the key for the authentication within the network.

When you finish configuring the wireless security, click "Next" to go to next step.

4. You can select to let the print server automatically obtain IP settings from DHCP Server or manually assign the IP settings.
If you manually assign the IP settings, you have to enter IP address, subnet mask and default gateway address. When you finish configuring the IP settings, click “Next” to confirm the IP Address configuration.



The dialog box is titled "Wireless - PS031700" and has a yellow "Wireless" header. The main title is "Configure Your Adapters IP Address". There are two radio button options: "Automatically Obtain IP Settings(DHCP)" and "Set Your IP Manually". The "Set Your IP Manually" option is selected. Below it, there are three rows of input fields: "IP Address" with values 192, 168, 0, 1; "Subnet Mask" with values 255, 255, 255, 0; and "Gateway" with values 0, 0, 0, 0. At the bottom right, there are three buttons: "Back", "Next", and "Cancel".

Wireless - PS031700

Wireless

Configure Your Adapters IP Address

☐ Automatically Obtain IP Settings(DHCP)
Obtain your IP Settings from your Wireless Access Point/Router.(DHCP must be enabled on your Wireless Access Point/Router)

☒ Set Your IP Manually

IP Address: 192 168 0 1

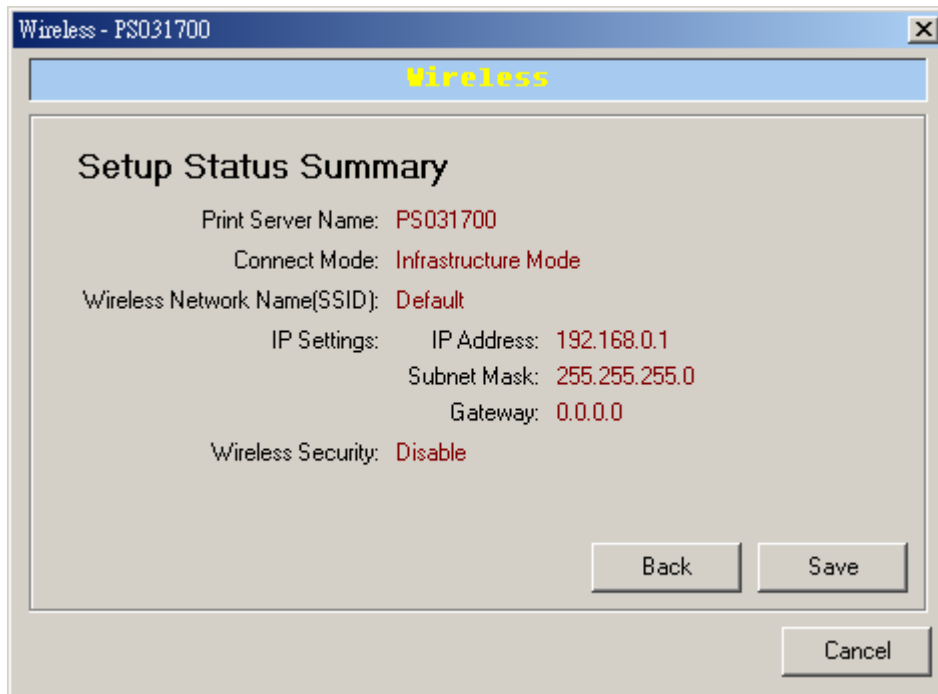
Subnet Mask: 255 255 255 0

Gateway: 0 0 0 0

Back Next

Cancel

5. Please click “Save” to save the wireless configuration.



The dialog box is titled "Wireless - PS031700" and has a yellow "Wireless" header. The main title is "Setup Status Summary". It displays the following configuration details: "Print Server Name: PS031700", "Connect Mode: Infrastructure Mode", "Wireless Network Name(SSID): Default", "IP Settings: IP Address: 192.168.0.1, Subnet Mask: 255.255.255.0, Gateway: 0.0.0.0", and "Wireless Security: Disable". At the bottom right, there are three buttons: "Back", "Save", and "Cancel".

Wireless - PS031700

Wireless

Setup Status Summary

Print Server Name: PS031700

Connect Mode: Infrastructure Mode

Wireless Network Name(SSID): Default

IP Settings: IP Address: 192.168.0.1
Subnet Mask: 255.255.255.0
Gateway: 0.0.0.0

Wireless Security: Disable

Back Save

Cancel

7.10.2 Ad-Hoc Mode

1. If you are select "Ad-Hoc Mode" and click "Next" in section 7.11, you will see the dialog box below. You can let the print server automatically associate with other wireless station or manually assign the SSID of your wireless network. You can let the print server automatically select the channel that is the same with the peer or manually assign a channel.



The dialog box is titled "Wireless - PS031700" and has a yellow header bar with the word "Wireless" in blue. The main content area is titled "Connect to your wireless Network". It contains two radio button options: "Scan For Your local Wireless Network" (selected) and "Assign Your Wireless Network Manually". Below the second option is a text input field and the text "Enter your own Wireless Network ID (SSID)Manually". Below this is a section titled "Channel Selection" with two radio button options: "Auto" (selected) and "Manual". Next to the "Manual" option is a dropdown menu showing "11". At the bottom right are three buttons: "Back", "Next", and "Cancel".

Wireless - PS031700

Wireless

Connect to your wireless Network

☒ Scan For Your local Wireless Network
Let the Wizard automatically scan for your Wireless Network(SSID)

☐ Assign Your Wireless Network Manually

Enter your own Wireless Network ID (SSID)Manually

Channel Selection

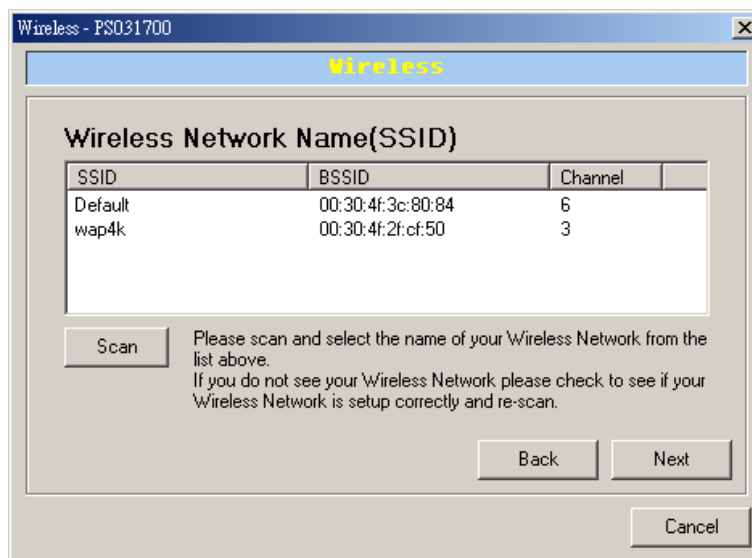
☒ Auto

☐ Manual

Back Next

Cancel

2. When you are select first option to continue, you will see this screen for scan the wireless network. Please select the wireless device that you want to connect and click "Next". If you don't have see the wireless device that you would like to connected, please click "Scan" to search again.



The dialog box is titled "Wireless - PS031700" and has a yellow header bar with the word "Wireless" in blue. The main content area is titled "Wireless Network Name(SSID)". It contains a table with three columns: "SSID", "BSSID", and "Channel". The table has two rows: "Default" with BSSID "00:30:4f:3c:80:84" and Channel "6", and "wap4k" with BSSID "00:30:4f:2f:cf:50" and Channel "3". Below the table is a "Scan" button and a text area with instructions: "Please scan and select the name of your Wireless Network from the list above. If you do not see your Wireless Network please check to see if your Wireless Network is setup correctly and re-scan." At the bottom right are three buttons: "Back", "Next", and "Cancel".

Wireless - PS031700

Wireless

Wireless Network Name(SSID)

SSID	BSSID	Channel
Default	00:30:4f:3c:80:84	6
wap4k	00:30:4f:2f:cf:50	3

Scan

Please scan and select the name of your Wireless Network from the list above.
If you do not see your Wireless Network please check to see if your Wireless Network is setup correctly and re-scan.

Back Next

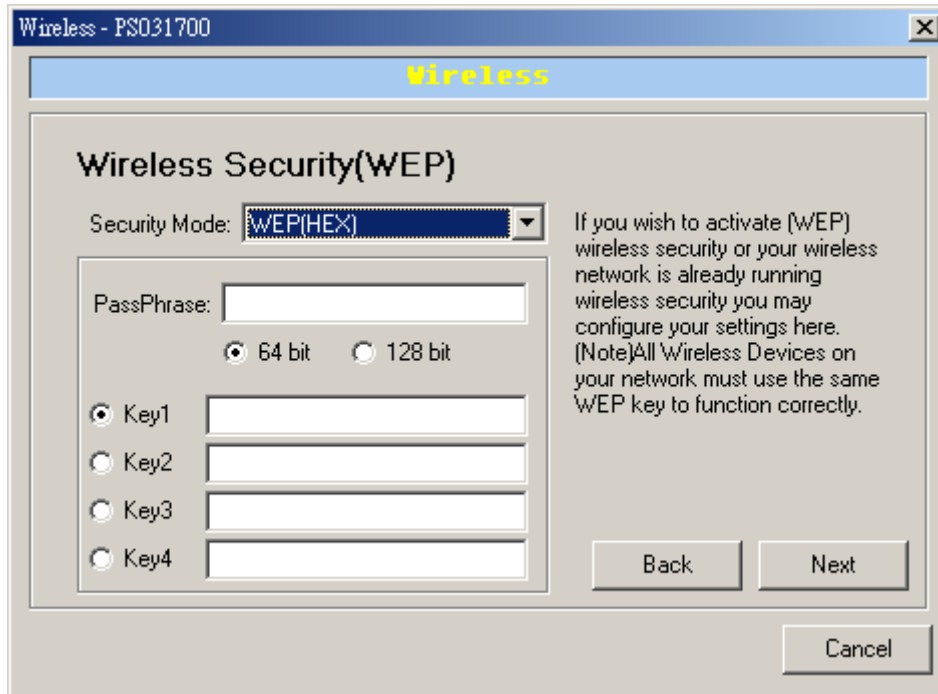
Cancel

3. This print server supports WEP and WPA-PSK security mode. If you want to use WEP encryption to protect your wireless network, you have to select "WEP(ASCII)" or "WEP(HEX)". If you want to use WPA-PSK, you have to select "WPA-shared key". The wireless security setting should be the same with other wireless devices in the same network.

The image shows a window titled "Wireless - PS031700" with a yellow "Wireless" header. The main section is titled "Wireless Security(WEP)". The "Security Mode:" dropdown menu is set to "Disable". Below it, there is a "PassPhrase:" text box. To the right of the text box are two radio buttons: "64 bit" (selected) and "128 bit". Below these are four radio buttons labeled "Key1", "Key2", "Key3", and "Key4", each followed by a text box. To the right of these fields is a note: "If you wish to activate (WEP) wireless security or your wireless network is already running wireless security you may configure your settings here. (Note)All Wireless Devices on your network must use the same WEP key to function correctly." At the bottom right are three buttons: "Back", "Next", and "Cancel".

WEP Security Mode:

The image shows the same "Wireless Security(WEP)" configuration window, but the "Security Mode:" dropdown menu is now set to "WEP(ASCII)". All other elements, including the "PassPhrase:" text box, the "64 bit" and "128 bit" radio buttons, the "Key1" through "Key4" radio buttons and text boxes, the explanatory note, and the "Back", "Next", and "Cancel" buttons, remain the same as in the previous image.

The image shows a Windows-style dialog box titled "Wireless - PS031700". Inside, there's a yellow header bar with the word "Wireless" in black. Below that, the main title is "Wireless Security(WEP)". The "Security Mode:" dropdown menu is set to "WEP(HEX)". To the right of this, a text block explains that if WEP is activated, settings can be configured here, and notes that all wireless devices must use the same WEP key. On the left, there's a "PassPhrase:" text box, followed by radio buttons for "64 bit" (selected) and "128 bit". Below these are four radio buttons labeled "Key1", "Key2", "Key3", and "Key4", each with an adjacent text box for entering a key value. At the bottom right, there are "Back", "Next", and "Cancel" buttons.

Wireless - PS031700

Wireless

Wireless Security(WEP)

Security Mode: WEP(HEX)

If you wish to activate (WEP) wireless security or your wireless network is already running wireless security you may configure your settings here.
(Note)All Wireless Devices on your network must use the same WEP key to function correctly.

PassPhrase:

☒ 64 bit ☐ 128 bit

☒ Key1

☐ Key2

☐ Key3

☐ Key4

Back Next

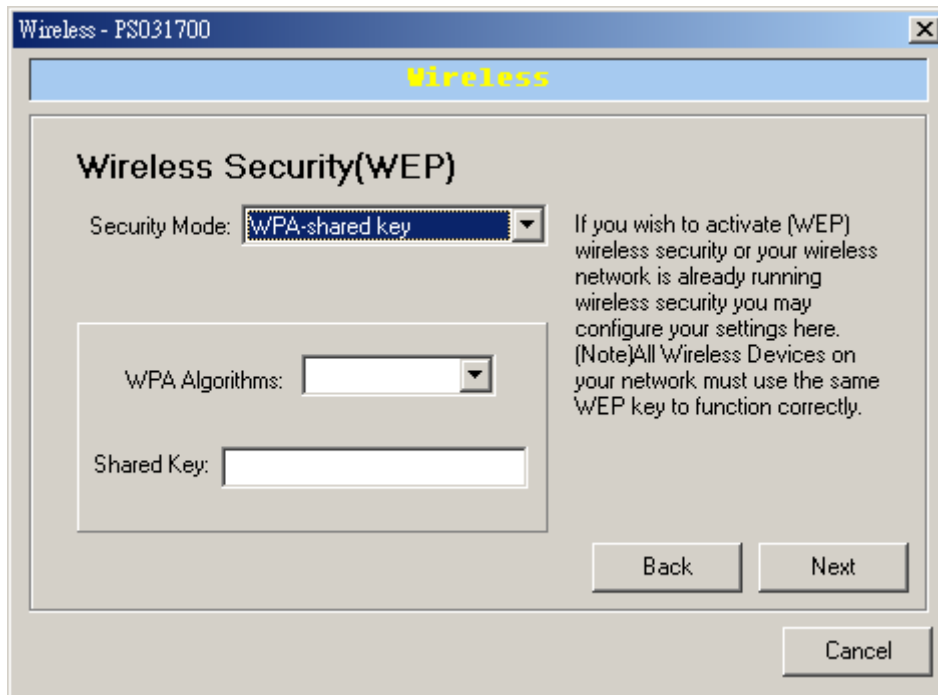
Cancel

You can select "64 bit" or "128 bit" length and "Hexdecimal" or "ASCII" format for the encryption key. Longer key length can provide stronger security but worth communication performance. Enter four key values by following the rules below and select one key as the default key.

- PassPhrase – A passphrase simplifies the WEP encryption process by automatically generating the WEP encryption keys for the print server. This setting is only valid when the security mode is in "WEP(HEX)".
- Key 1 to Key 4 – If the key length is 64-bit, enter 10-digit Hex values or 5-digit ASCII values as the encryption keys. For example: "0123456aef" or "Guest".

If the key length is 128-bit, enter 26-digit Hex values or 13-digit ASCII values as the encryption keys. For example: "01234567890123456789abcdef" or "administrator".

WPA-shared key Security Mode:

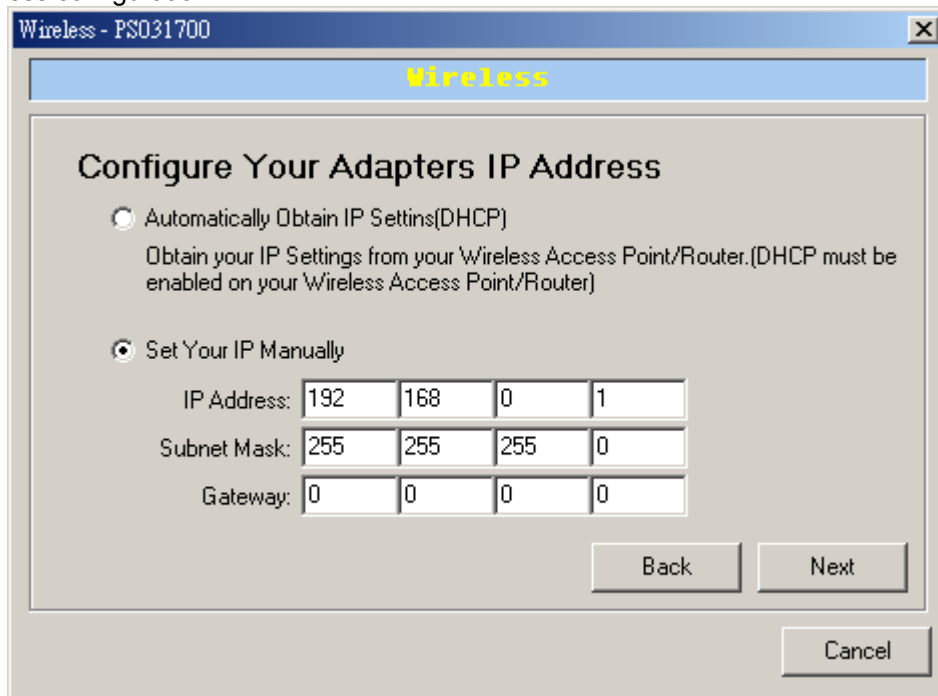


When "WPA-shared key", also named "WPA-PSK" requires users to select the advanced encryption methods, i.e. TKIP and enter a set of shared key.

- WPA Algorithms - TKIP (Temporal Key Integrity Protocol) changes the temporal key every 10,000 packets. This insures much greater security than the standard WEP security.
- Shared Key - Enter 8 to 63 digits of ASCII format to be the key for the authentication within the network.

When you finish configuring the wireless security, click "Next" to go to next step.

4. You can select to let the print server automatically obtain IP settings from DHCP Server or manually assign the IP settings.
If you manually assign the IP settings, you have to enter IP address, subnet mask and default gateway address. When you finish configuring the IP settings, click “Next” to confirm the IP Address configuration.



The screenshot shows a window titled "Wireless - PS031700" with a yellow "Wireless" header. The main title is "Configure Your Adapters IP Address". There are two radio button options: "Automatically Obtain IP Settings(DHCP)" and "Set Your IP Manually". The "Set Your IP Manually" option is selected. Below it, there are three rows of input fields: "IP Address" with values 192, 168, 0, 1; "Subnet Mask" with values 255, 255, 255, 0; and "Gateway" with values 0, 0, 0, 0. At the bottom right, there are three buttons: "Back", "Next", and "Cancel".

Wireless - PS031700

Wireless

Configure Your Adapters IP Address

☐ Automatically Obtain IP Settings(DHCP)
Obtain your IP Settings from your Wireless Access Point/Router.(DHCP must be enabled on your Wireless Access Point/Router)

☒ Set Your IP Manually

IP Address:

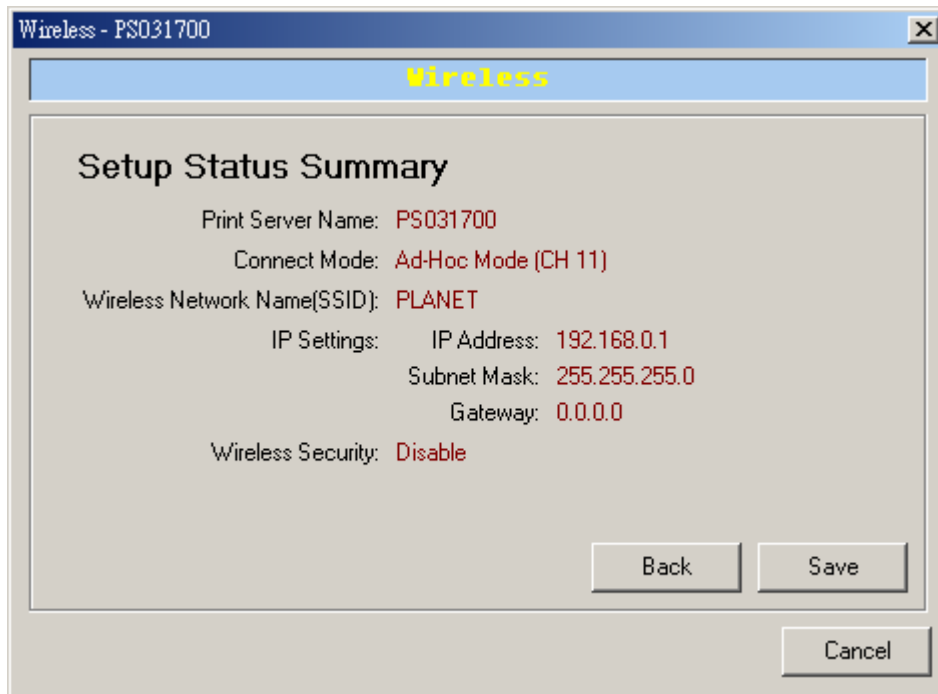
Subnet Mask:

Gateway:

Back Next

Cancel

5. Please click “Save” to save the wireless configuration.



The screenshot shows a window titled "Wireless - PS031700" with a yellow "Wireless" header. The main title is "Setup Status Summary". It displays the following configuration details: "Print Server Name: PS031700", "Connect Mode: Ad-Hoc Mode (CH 11)", "Wireless Network Name(SSID): PLANET", "IP Settings: IP Address: 192.168.0.1, Subnet Mask: 255.255.255.0, Gateway: 0.0.0.0", and "Wireless Security: Disable". At the bottom right, there are three buttons: "Back", "Save", and "Cancel".

Wireless - PS031700

Wireless

Setup Status Summary

Print Server Name: PS031700

Connect Mode: Ad-Hoc Mode (CH 11)

Wireless Network Name(SSID): PLANET

IP Settings: IP Address: 192.168.0.1
Subnet Mask: 255.255.255.0
Gateway: 0.0.0.0

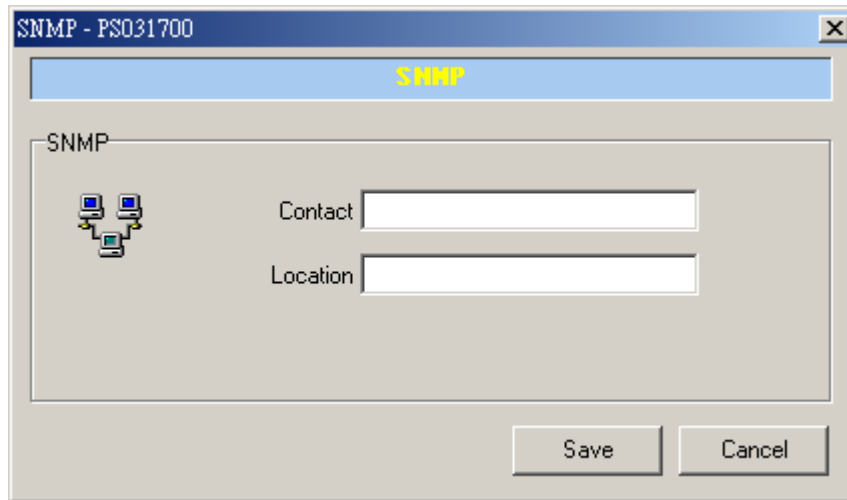
Wireless Security: Disable

Back Save

Cancel

7.11 SNMP

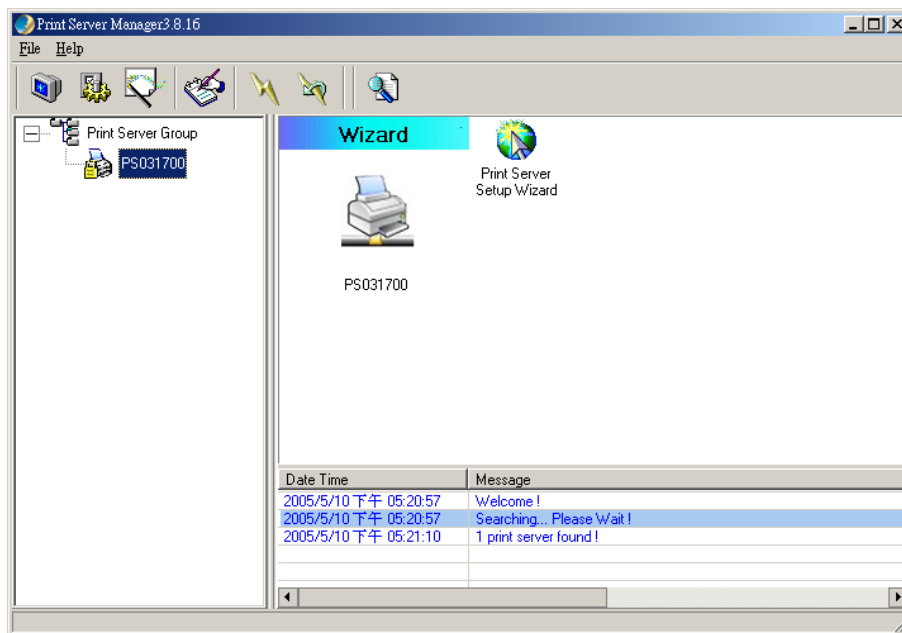
Double Click “SNMP” icon and the SNMP configuration window will pop up.




Contact: You can enter the print server administrator's contact information here. This information will be displayed in the SNMP management tool.

Location: You can enter the installed location of the print server here. This information will be displayed in the SNMP management tool.

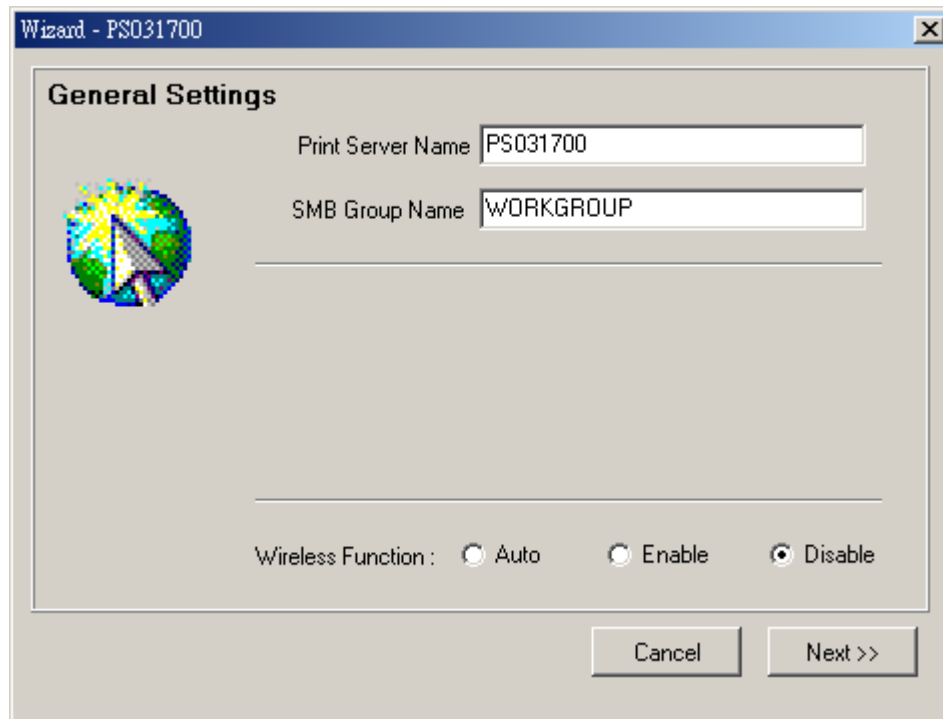
7.12 Wizard



Click “Wizard” icon  on the tool bar, the setup wizard item of the current selected print server will be showed on the right side of the window.

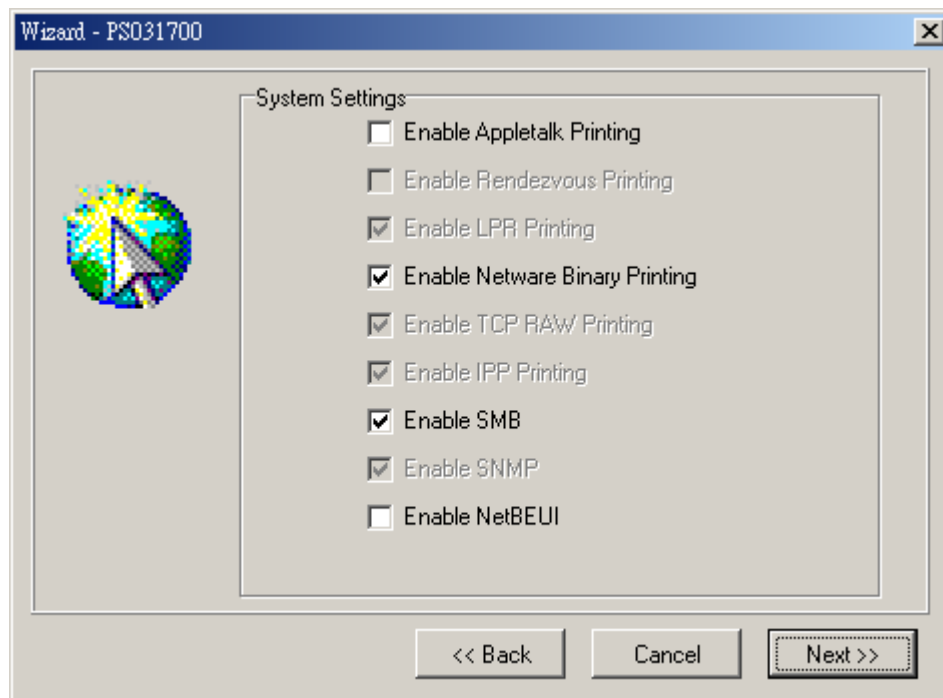
Double click the “Print Server Wizard”, the setup wizard will guide you through all the setup process from next page.

Step 1: Setup the Print Server Name and SMB Group Name of this print server and the name of each printer port. Please refer to section 7.5 and 7.9 for detail information.



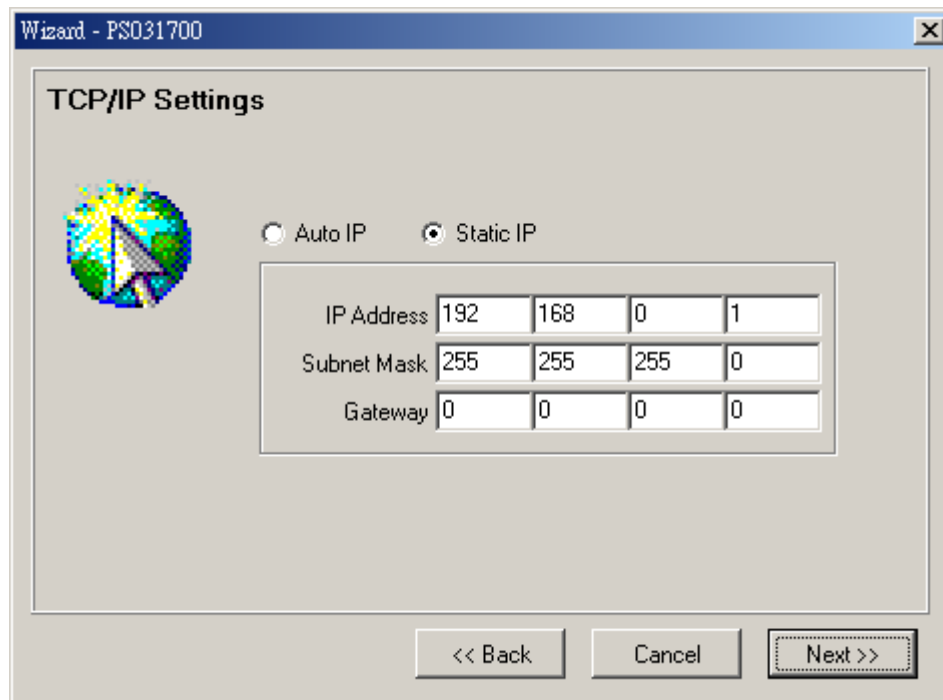
The screenshot shows the 'General Settings' window of the 'Print Server Wizard'. The title bar reads 'Wizard - PS031700'. On the left is a circular icon with a colorful, abstract pattern. The main area contains two text input fields: 'Print Server Name' with the value 'PS031700' and 'SMB Group Name' with the value 'WORKGROUP'. Below these fields are three radio buttons for 'Wireless Function': 'Auto', 'Enable', and 'Disable'. The 'Disable' option is selected. At the bottom right are 'Cancel' and 'Next >>' buttons.

Step 2: Select to enable required printing protocol. Please refer to section 7.9 for detail information.



The screenshot shows the 'System Settings' window of the 'Print Server Wizard'. The title bar reads 'Wizard - PS031700'. On the left is the same circular icon as in the previous window. The main area is titled 'System Settings' and contains a list of checkboxes for enabling various printing protocols. The checked options are: 'Enable LPR Printing', 'Enable Network Binary Printing', 'Enable TCP RAW Printing', 'Enable IPP Printing', 'Enable SMB', and 'Enable SNMP'. The unchecked options are 'Enable Appletalk Printing', 'Enable Rendezvous Printing', and 'Enable NetBEUI'. At the bottom are '<< Back', 'Cancel', and 'Next >>' buttons.

Step 3: Setup the IP of this print server. Please refer to section 7.6 for detail information.



Wizard - PS031700

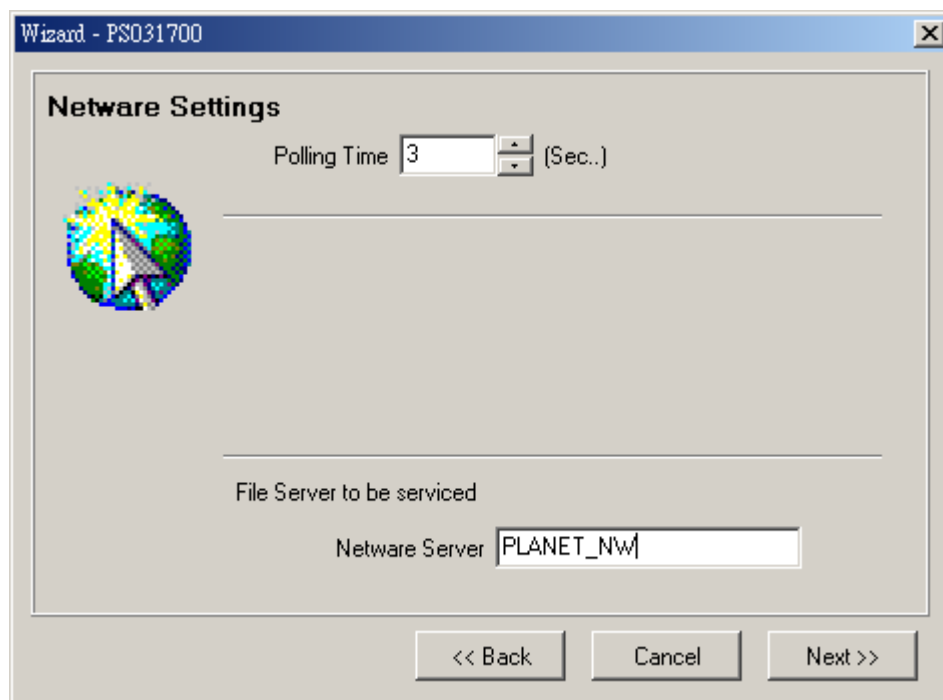
TCP/IP Settings

☐ Auto IP ☒ Static IP

IP Address	192	168	0	1
Subnet Mask	255	255	255	0
Gateway	0	0	0	0

<< Back Cancel Next >>

Step 4: Setup the NetWare printing. Please refer to section 7.7 for detail information.



Wizard - PS031700

Netware Settings

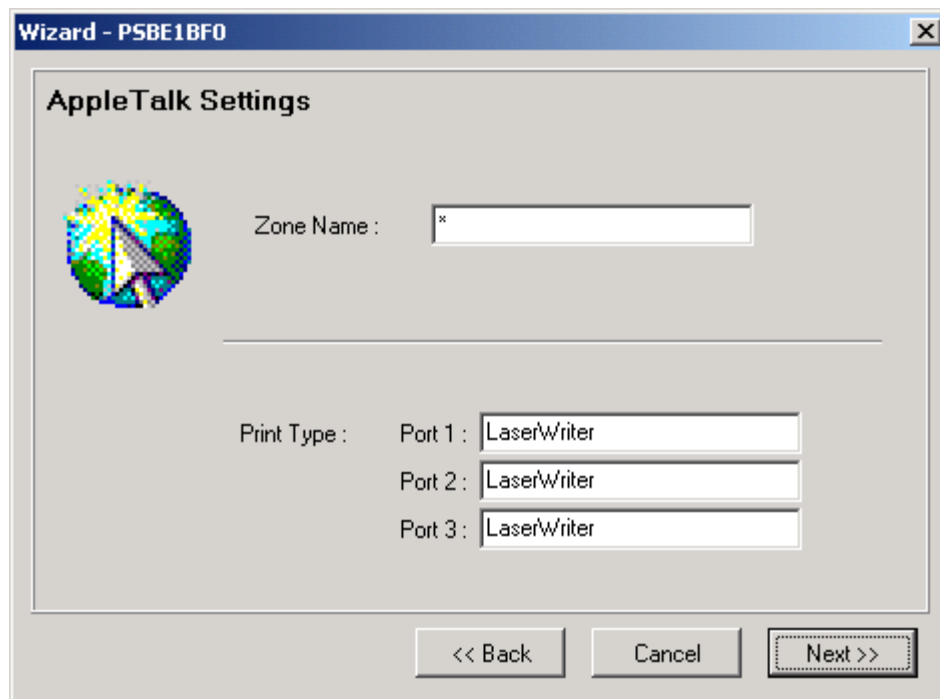
Polling Time 3 (Sec..)

File Server to be serviced

Netware Server PLANET_NW

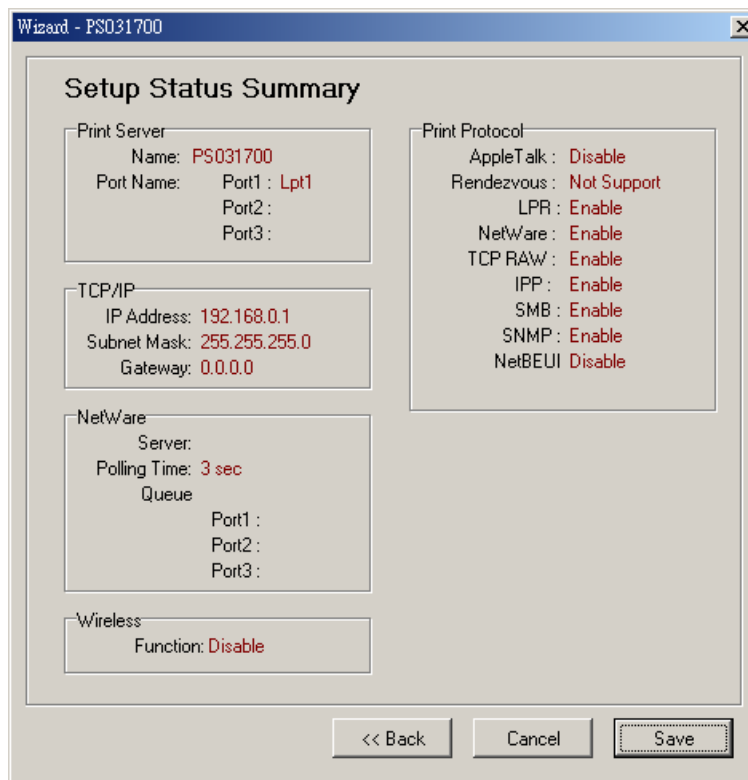
<< Back Cancel Next >>

Step 5: Setup the AppleTalk printing. Please refer to section 7.8 for detail information.



The screenshot shows a window titled "Wizard - PSBE1BF0" with a close button in the top right corner. The main area is titled "AppleTalk Settings". On the left, there is a circular icon with a mouse cursor pointing at it. To the right of the icon, the text "Zone Name :" is followed by a text input field containing an asterisk (*). Below this, there is a horizontal line. Under the line, the text "Print Type :" is followed by three stacked text input fields. The first field is labeled "Port 1 :" and contains "LaserWriter". The second field is labeled "Port 2 :" and contains "LaserWriter". The third field is labeled "Port 3 :" and contains "LaserWriter". At the bottom of the window, there are three buttons: "<< Back", "Cancel", and "Next >>".

Step 6. Setup Status Summary. This screen will show you the total settings of this print server. If those settings are correct, please press "Set" for next step to save the settings or press "Cancel" or "<<Back" button to modify the settings as you need.

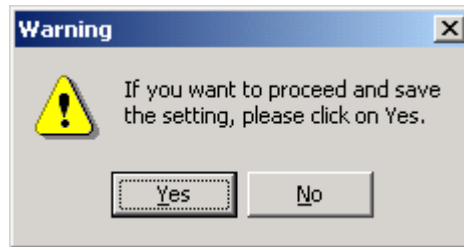


The screenshot shows a window titled "Wizard - PS031700" with a close button in the top right corner. The main area is titled "Setup Status Summary". It contains several sections with settings:

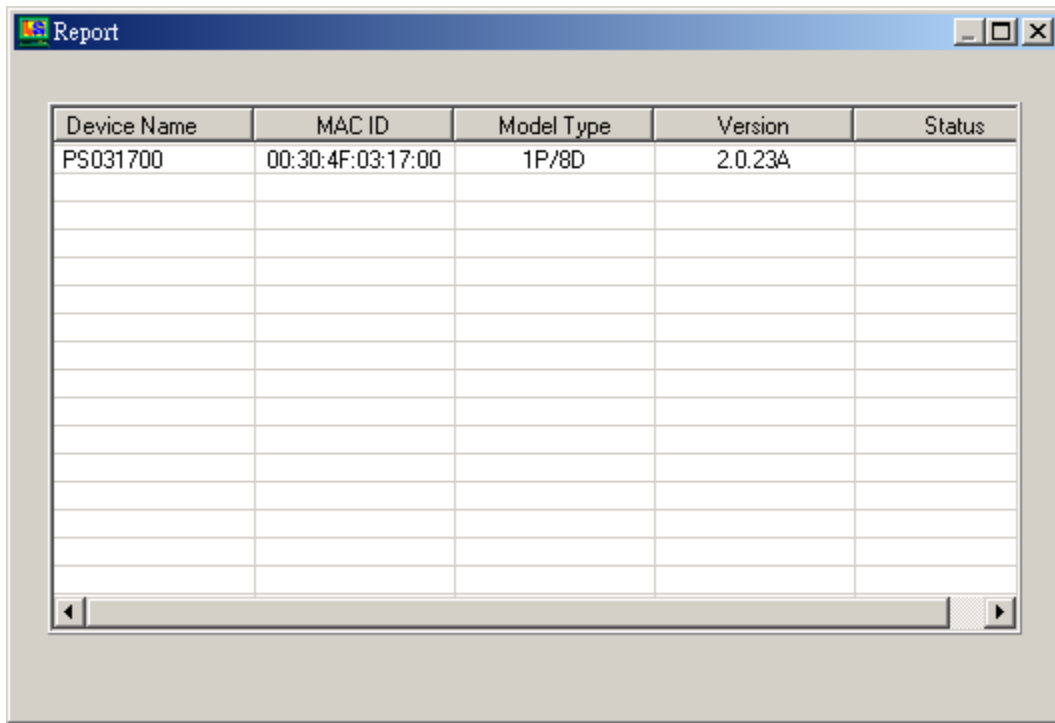
- Print Server**
 - Name: PS031700
 - Port Name: Port1 : Lpt1
 - Port2 :
 - Port3 :
- TCP/IP**
 - IP Address: 192.168.0.1
 - Subnet Mask: 255.255.255.0
 - Gateway: 0.0.0.0
- NetWare**
 - Server:
 - Polling Time: 3 sec
 - Queue
 - Port1 :
 - Port2 :
 - Port3 :
- Wireless**
 - Function: Disable
- Print Protocol**
 - AppleTalk : Disable
 - Rendezvous : Not Support
 - LPR : Enable
 - NetWare : Enable
 - TCP RAW : Enable
 - IPP : Enable
 - SMB : Enable
 - SNMP : Enable
 - NetBEUI : Disable


At the bottom of the window, there are three buttons: "<< Back", "Cancel", and "Save".

Step 10. Please press “Yes” to save the settings.



7.13 Report



Click “Report” icon  on the tool bar, the Report window will pop-up.

The report list basic information of all available print servers on the network. The information includes Device Name, MAC ID, Model Type, Firmware Version and Status of print server.

Chapter8 Web Management

8.1 Introduction

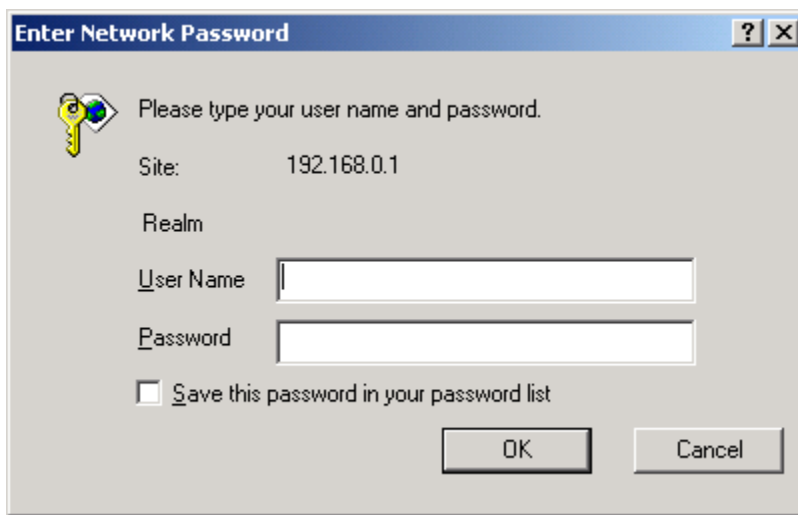
Print server can be configured and managed on the web browser. Through Local Area Network, or even Internet when this print server has an legal IP address. Administrator can easily configure and manage print server's various main functions in web browsers. Simply enter print server's IP address into your browser's address field to manage a print server by print server's built-in Web Server.

8.2 Web Management of Print Server

8.2.1 Login

You may use any Web Browser to review the status or configure the settings of the print server. After entering the IP address of the print server, a login dialog box display. You have to enter correct "User Name" and "Password" before going to the Web Management pages.

Notes: Please leave the User Name to empty, default password is "1234".



The image shows a Windows-style dialog box titled "Enter Network Password". It has a blue title bar with a question mark icon and a close button. The main area is light gray. On the left, there is a yellow key icon. To the right of the icon, the text "Please type your user name and password." is displayed. Below this, the "Site:" field is populated with "192.168.0.1". The "Realm" field is empty. There are two text input fields: "User Name" and "Password". The "Password" field has a small black square icon on its left side, indicating it is a password field. Below the input fields, there is a checkbox labeled "Save this password in your password list". At the bottom right, there are two buttons: "OK" and "Cancel".

8.3 Device Status

8.3.1 System

Device Setup | Setup Wizard | System Tools

STATUS
SYSTEM

SYSTEM

Printer

TCP/IP

SMB

SNMP

NetWare

AppleTalk

This page displays the current system settings of the print server.

System Information

Device Name : PS031700Raw Printing : Enable

Printer Server Name : PS031700IPP Printing : Enable

Model Type : 1PW Print ServerLPR Printing : Enable

Firmware Version : 2.0.23AppleTalk Printing : Disable

MAC Address : 00:30:4f:03:17:00NetWare Printing : Enable

USB Port Number : NoSMB : Enable

LPT Port Number : 1SNMP : Enable

Wireless Lan Status : EnableNetBEUI : Disable

Wireless Configuration

Mode : InfrastructureESSID : 00:30:4f:3c:80:84

Channel Number : 6WEP : Disable

Status : ConnectedBSSID : Default

In this page, it will show you all the system information such as “Device Name”, “Print Server Name”, “Model Type”, “Firmware Version”, “MAC Address” and other information.

8.3.2 Printer

Device Setup Setup Wizard System Tools	
STATUS Printer	
This page displays the information of each printer connected to the print server.	
Note: if your printer does not support bi-directional function, some information will not be displayed correctly.	
Printer 1	
	Manufacturer :
	Model Number :
	Printing Language Supported :
	Current Status : Off_line
SYSTEM	
Printer	
TCP/IP	
SMB	
SNMP	
NetWare	
AppleTalk	

This page will display the information of printers connected to all printer ports.

8.3.3 TCP/IP

[Device Setup](#) | [Setup Wizard](#) | [System Tools](#)

STATUS
TCP/IP

SYSTEM
Printer
TCP/IP
SMB
SNMP
NetWare
AppleTalk

This page displays the current TCP/IP settings of the print server.

TCP/IP Settings

Use DHCP/BOOTP : Off
IP Address : 192.168.0.1
Subnet Mask : 255.255.255.0
Gateway : 0.0.0.0
Use DHCP Server : Off

This page lists all TCP/IP Settings, include “IP Address”, “Subnet Mask” and “Gateway”.

8.3.4 SMB

[Device Setup](#) | [Setup Wizard](#) | [System Tools](#)

STATUS
SMB

SYSTEM
Printer
TCP/IP
SMB
SNMP
NetWare
AppleTalk

This page displays the current SMB settings of the print server.

SMB Settings

SMB Group Name : WORKGROUP

This page will show the SMB Group Name.

8.3.5 SNMP

Device Setup Setup Wizard System Tools	
STATUS SNMP	This page displays the current SNMP settings of the print server.
	SNMP Settings
	SNMP System Contact : None
	SNMP System Location : None
SYSTEM	
Printer	
TCP/IP	
SMB	
SNMP	
NetWare	
AppleTalk	

This page will show the SNMP System Contact and SNMP System Location. If the settings are empty, this page will show you the settings “Disabled”.

8.3.6 NetWare

Device Setup Setup Wizard System Tools	
STATUS NetWare	This page displays the current NetWare settings of the print server.
	General Settings
	Polling Time : 3 seconds
	NetWare Bindery Settings
	Use Bindery Mode : Enable
	Name of the File Server :
	NetWare Port Settings
	Port1 Attached Queue : Disconnected
SYSTEM	
Printer	
TCP/IP	
SMB	
SNMP	
NetWare	
AppleTalk	

This page lists NetWare settings, include “Polling Time”, “Use Bindery Mode”, “Name of the File Server” and “Queue Name of each Port”.

8.3.7 AppleTalk

Device Setup Setup Wizard System Tools	
STATUS AppleTalk	This page displays the current AppleTalk settings of the print server.
	AppleTalk Settings
	AppleTalk Zone Name : *
	Printer 1
	Printer Type : LaserWriter
SYSTEM	
Printer	
TCP/IP	
SMB	
SNMP	
NetWare	
AppleTalk	

This page lists AppleTalk settings, include “AppleTalk Zone Name” and “Printer Type of printers connected to all print ports”.

8.4 Setup Wizard

8.4.1 System

Device Setup Setup Wizard System Tools	
SETUP SYSTEM	This Menu allows you to configure general system settings of the Print Server.
	Click "Save and Next" to continue.
	System Settings
	Print server Name : <input type="text" value="PS031700"/>
	Password : <input type="password"/>
	Re-type Password : <input type="password"/>
	Save & Next
SYSTEM	
Advanced Settings	
Wireless	
TCP/IP	
SMB	
SNMP	
NetWare	
AppleTalk	
Save Settings	

You also can configure the “Print Server Name”, “User Name” and “Password” here.

Printer Server Name, the name of the print server. You can use this name to identify the print server when you are searching for the print server by the administration and client utilities.

Port Name: The name of the printer port. Each printer port has to be assigned a name. The printserver driver uses this name to access the printer port.

8.4.1.1 Advanced Settings

The screenshot shows a web-based configuration interface for a print server. At the top, there are navigation links: "Device Setup", "Setup Wizard", and "System Tools". The main heading is "SETUP SYSTEM". Below this, a sidebar lists various configuration categories: "SYSTEM", "Advanced Settings", "Wireless", "TCP/IP", "SMB", "SNMP", "NetWare", "AppleTalk", and "Save Settings". The "SYSTEM" category is currently selected. The main content area is titled "System Configure" and contains the following settings:

- IPX :
- TCP/IP Printing(LPR/IPP/RAW/SMB) :
- NetBEUI:
- AppleTalk Printing:

At the bottom of the configuration area, there is a prominent orange button labeled "Save & Next". Above the configuration options, a message states: "This page allows you to configure Advance settings for the Print Server. Click 'Save and Next' to continue."

You can enable/disable the printing protocols from the screen. To enable the function, please select "Enabled"; to disable the function, please select "Disabled".

8.4.2 Wireless

If you want to use the print server through wireless LAN, please set up the print server through Ethernet first and make sure your wireless LAN setting is correct. After setting the wireless LAN, unplug the Ethernet cable and restart the print server, then you can start to use the print server through wireless LAN. If the wireless configuration does not work, please plug the Ethernet cable again, restart the print server and configure the print server through Ethernet until the wireless LAN settings are correct.

8.4.2.1 General Setting

You can enable/disable the wireless function and set parameters that are used for the wireless stations to connect to this print server from here. The parameters include "Function", "Mode", "ESSID" and "Channel Number". You can manually set the parameters of wireless LAN in this page or use the "Site Survey" function to automatically search for an available access point and associate with it.

Function is for user to disable, enable or let the print server auto select to connect to the wired or wireless network. If "Disable" is selected, the print server can only connect to the network through wired Ethernet. If "Enable" is selected, the print server can only connect to the network through Wireless LAN. If "Auto" is selected, the print server can automatically decide to enable or disable the wireless function. The print server only can work in ether Ethernet or wireless LAN mode. It cannot work in both Ethernet and wireless LAN mode at the same time. When the print server starts up, it will auto-detect if the LAN port is connected

to an active network by an Ethernet cable. If the print server is connected to an active network by Ethernet cable when starting up, the print server will run in Ethernet mode. If the print server is not connected to an active network by Ethernet cable when starting up, the print server will run in wireless LAN mode. The print server default is in "Disable" mode.

Mode is the operation mode of wireless station. You can choose either "Ad Hoc" or "Infrastructure" mode. If you do not have any access point and want to use peer-to-peer connection, you have to choose "Ad Hoc" mode. If you have an access point as the wireless LAN infrastructure, you have to choose "Infrastructure" mode.

ESSID is the unique name identified by in a wireless LAN. The ID prevents the unintentional merging of two co-located WLANs. Please make sure that the ESSID of all stations and access points in the same WLAN network are the same.

Channel Number is the channel number of your wireless LAN. Please make sure that the channel number of all stations and access points in the same WLAN network are the same.

[Device Setup](#) | [Setup Wizard](#) | [System Tools](#)

SETUP
WIRELESS

SYSTEM

Wireless

General Setting

Encryption

SiteSurvey

TCP/IP

SMB

SNMP

NetWare

AppleTalk

Save Settings

This page allows you to define your ESSID, Wireless Mode and Channel Number. Note, all wireless devices on your wireless network must have the same ESSID to communicate with one another.

Click "Save and Next" to continue.

Wireless Setting

Function :

Enable

Mode :

Infrastructure

ESSID :

Default

Channel Number :

11

Save & Next

8.4.2.2 Encryption

This print server supports WEP and WPA-PSK security mode. If you want to use WEP encryption to protect your wireless network, you have to select "WEP". If you want to use WPA-PSK, you have to select "WPA-shared key". The wireless security setting should be the same with other wireless devices in the same network.

[Device Setup](#) | [Setup Wizard](#) | [System Tools](#)

SETUP WIRELESS

SYSTEM

Wireless

General Setting

Encryption

SiteSurvey

TCP/IP

SMB

SNMP

NetWare

AppleTalk

Save Settings

Encryption allows your data being transmitted over the wireless network securely.If this function is enabled, please make sure your wireless stations are using the same encryption keys as the Printer Server.

Click "Save and NEXT" to continue.

Encryption Setting

Mode :

Save & Next

WEP Security Mode:

[Device Setup](#) | [Setup Wizard](#) | [System Tools](#)

SETUP WIRELESS

SYSTEM

Wireless

General Setting

Encryption

SiteSurvey

TCP/IP

SMB

SNMP

NetWare

AppleTalk

Save Settings

Encryption allows your data being transmitted over the wireless network securely.If this function is enabled, please make sure your wireless stations are using the same encryption keys as the Printer Server.

Click "Save and NEXT" to continue.

Encryption Setting

Mode :

Key length :

Key format :

Passphrase:

Enter a key into the table

Default key :

Key 1 :

Key 2 :

Key 3 :

Key 4 :

Save & Next

- Key Format - You may select to use ASCII Characters (alphanumeric format) or Hexadecimal digits (in the "A-F", "a-f" and "0-9" range) to be the WEP Key.
- Key Length - You can choose "64-bit" to use WEP with 64-bit key length encryption or choose "128-bit" to use WEP with 128-bit key length encryption. The longer key length can provide better security but worse transmission throughput.
- PassPhrase - A passphrase simplifies the WEP encryption process by automatically generating the WEP encryption keys for the print server.
- Default Key - Select one of the four keys to encrypt your data. Only the key you select it in the "Default key" will take effect.
- Key 1 - Key 4 - The WEP keys are used to encrypt data transmitted within the wireless network. Fill the text box by following the rules below.

64-bit WEP: input 10-digit Hex values (in the "A-F", "a-f" and "0-9" range) or 5-digit ASCII character as the encryption keys. For example: "0123456aef" or "Guest".

128-bit WEP: input 26-digit Hex values (in the "A-F", "a-f" and "0-9" range) or 10-digit ASCII characters as the encryption keys. For example: "01234567890123456789abcdef" or "administrator".

WPA-shared key Security Mode:

[Device Setup](#) | [Setup Wizard](#) | [System Tools](#)

SETUP
WIRELESS

SYSTEM

Wireless

General Setting

Encryption

SiteSurvey

TCP/IP

SMB

SNMP

NetWare

AppleTalk

Save Settings

Encryption allows your data being transmitted over the wireless network securely. If this function is enabled, please make sure your wireless stations are using the same encryption keys as the Printer Server.

Click "Save and NEXT" to continue.

Encryption Setting

Mode : WPA-PSK

WPA algorithms : TKIP

WPA Pre-Shared Key :

Save & Next

When “WPA-shared key”, also named “WPA-PSK” requires users to select the advanced encryption methods, i.e. TKIP and enter a set of shared key.

- WPA Algorithms – TKIP (Temporal Key Integrity Protocol) changes the temporal key every 10,000 packets. This insures much greater security than the standard WEP security.
- WPA Key – Enter 8 to 63 digits of ASCII format to be the key for the authentication within the network.

When you finish configuring the wireless security, click “Save & Next” to confirm the configuration.

8.4.2.3 Site Survey

You can use this “Site Survey” function to search for available access points in you location. In the list is the information of all available access points or wireless stations, includes SSID, BSSID, Channel, Type, Encryption and Signal Strength. You can select one wireless device in the list for this print server to associate with or you have to use General Setting to manually setup the wireless parameters.

There is “WLAN Function” setting for you to setup Auto/Disable/Enable wireless function of the print server here. Please refer to section 8.4.2.1 to know more about the setting.

[Device Setup](#) | [Setup Wizard](#) | [System Tools](#)

SETUP WIRELESS

SYSTEM

Wireless

General Setting

Encryption

SiteSurvey

TCP/IP

SMB

SNMP

NetWare

AppleTalk

Save Settings

This page provides tool to scan the wireless network. If any Print Server or IBSS is found, you could choose to connect it manually when client mode is enabled

Click "Select" to continue.

Wireless Site Survey

WLAN Function: **Enable**

SSID	BSSID	Channel	Type	Encrypt	Signal	Select
Default	00:30:4f:3c:80:84	6	Infrastructure	Open	100%	<input type="radio"/>

8.4.3 TCP/IP

[Device Setup](#) | [Setup Wizard](#) | [System Tools](#)

SETUP TCP/IP

SYSTEM

Wireless

General Setting

Encryption

SiteSurvey

TCP/IP

SMB

SNMP

NetWare

AppleTalk

Save Settings

This Menu allows you to configure TCP/IP settings for the Print Server.

Click "Save and Next" to continue.

TCP/IP Settings

☐ Enable Obtain TCP/IP settings automatically (use DHCP/BOOTP)

☒ Disable Use the following TCP/IP settings

IP Address :

Subnet Mask :

Gateway :

Print Server DHCP Server :

You can configure the print server to automatically obtain an IP address from your LAN DHCP server or manually specify a static IP address.

If you need the print server to automatically get an IP from DHCP server, select "Enable Obtain TCP/IP settings automatically". Or you can select "Disable Use the following TCP/IP settings" to manually assign IP Address, Subnet Mask and Gateway for the print server.

8.4.4 SMB

[Device Setup](#) | [Setup Wizard](#) | [System Tools](#)

SETUP
SMB

SYSTEM

Wireless

General Setting

Encryption

SiteSurvey

TCP/IP

SMB

SNMP

NetWare

AppleTalk

Save Settings

This page allows you to configure SMB settings for the Print Server.

Click "Save and Next" to continue.

SMB Configure

SMB Enable :

SMB Group Name :

Save & Next

You may Enable/Disable the SMB Printing protocol of this print server. When this setting enable, you have to enter the SMB Group Name, you should set this name as your network PCs assigned. Then the PCs can find this printserver in Network Neighbor and attach to this print server as a Network Printer.

8.4.5 SNMP

[Device Setup](#) | [Setup Wizard](#) | [System Tools](#)

SETUP
SNMP

SYSTEM

Wireless

General Setting

Encryption

SiteSurvey

TCP/IP

SMB

SNMP

NetWare

AppleTalk

Save Settings

This page allows you to configure SNMP settings for the Print Server.

Click "Save and Next" to continue.

SNMP Configure

SNMP System Contact :

SNMP System Location :

Save & Next

This printserver has support SNMP protocol for users use SNMP management tool to monitor from a remote site. You can Enable this protocol and set the SNMP System Contact and SNMP System Location in this page.

SNMP System Contact: Text Field - Name of the contact person.

SNMP System Location: Text Field - Location of the contact person.

8.4.6 NetWare

The screenshot shows a web-based configuration interface for a print server. At the top, there are navigation links: "Device Setup", "Setup Wizard", and "System Tools". On the left side, there is a vertical menu with the following items: "SETUP NetWare" (highlighted in orange), "SYSTEM", "Wireless", "General Setting", "Encryption", "SiteSurvey", "TCP/IP", "SMB", "SNMP", "NetWare" (highlighted in orange), "AppleTalk", and "Save Settings". The main content area has a dark header with the text "This Menu allows you to configure the NetWare function of the Print Server." and "Click 'Save and Next' to continue." Below this, there is a section titled "General Settings" with a "Polling Time" field set to "3" seconds, with a note "(min: 3, max: 29 seconds)". Underneath is a section titled "NetWare Bindery Settings" with a text input field for "Name of the File Server :". At the bottom center of the main area is an orange button labeled "Save & Next".

This print server supports NetWare Bindery Printing method. The print server periodically polls the NetWare server printer queues for printing jobs. You have to assign the NetWare server name, print server polling interval and the name of queue on the NetWare server for each printer port.

Polling Time: The polling interval of the print server for waiting printing jobs on the NetWare server.

Name of the File Server: Name of the NetWare file server that provides printer queues.

8.4.7 AppleTalk

[Device Setup](#) | [Setup Wizard](#) | [System Tools](#)

SETUP
AppleTalk

SYSTEM

Wireless

General Setting

Encryption

SiteSurvey

TCP/IP

SMB

SNMP

NetWare

AppleTalk

Save Settings

This page allows you to configure AppleTalk settings for the Print Server.

Leave the settings boxes blank and Click "Save & Next" if you don't use the AppleTalk protocol.

Apple Talk Settings

AppleTalk Enable :

AppleTalk Zone Name :

Printer1

Printer Type :

Save & Next

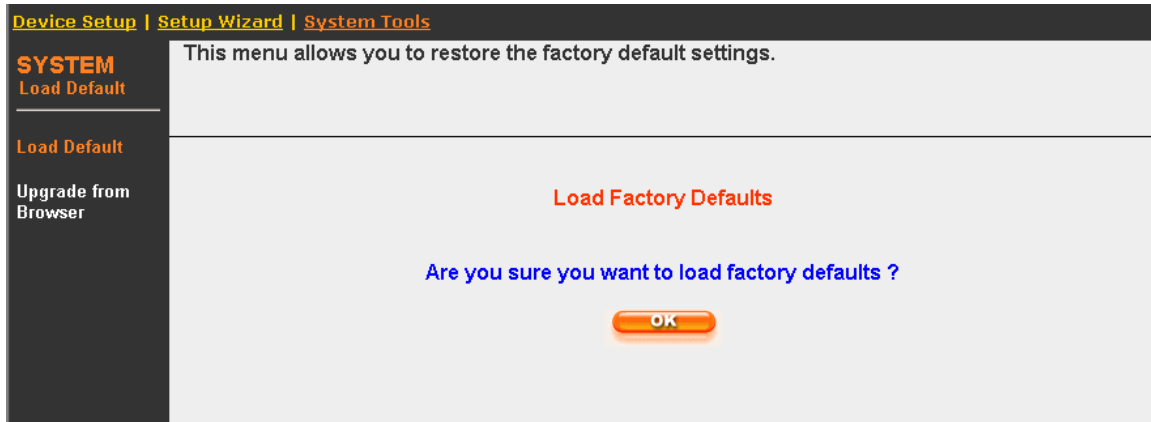
AppleTalk is a data communication protocol often used by Macintoshes. The print server can use these parameters to join the AppleTalk network and share the printer to other AppleTalk workstations. When you select "Enable", you have to setup the "Zone Name" and "Printer Type" for each printer port of this print server.

Zone Name: Print server has to join zones of AppleTalk before it can be shared to other workstations. Only workstations in the same zone can share the printer. If you want to share the printer to all workstations in all Zones, you should enter only "*" in the "Zone Name" field.

Printer Type, the type of printer attached to each printer port. You can get the printer type from the manufacturer of the printer.

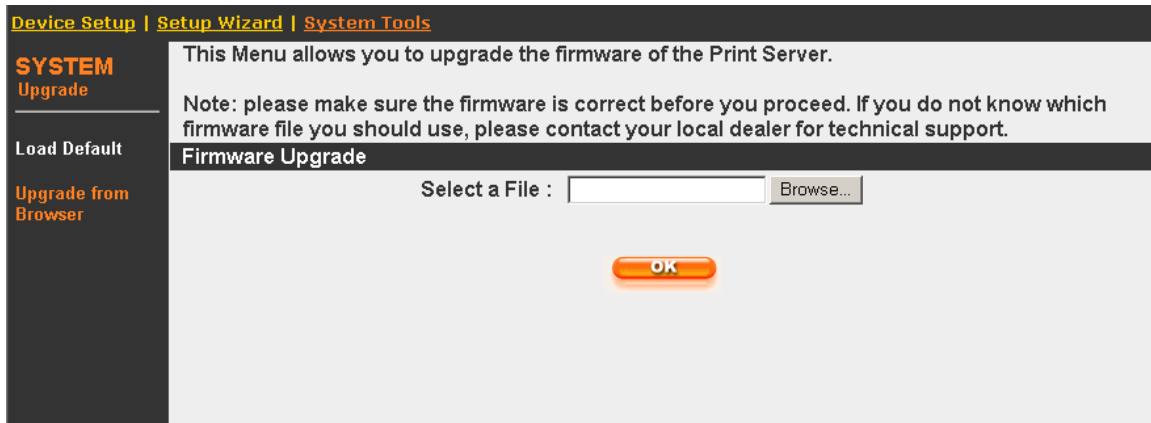
8.5 System Tools

8.5.1 Load Default



You can restore print server to factory default settings in this screen. All of your previous configuration will be cleared.

8.5.2 Upgrade Firmware



You can upgrade new firmware for this print server in this screen. Click "Browse..." button to locate the new firmware and then click "OK", the firmware will be updated in several minutes.

Chapter9 IPP Printing

9.1 Introduction

IPP (Internet Printing Protocol) Printing provides a convenient way of remote printing service by TCP/IP. The print server can support IPP printing by default. It is needless to do any setting. Any PC that can support IPP printing, for example Windows 2000/XP, can directly uses the print server by IP. By using the IPP printing, you can share the printer to all the PC's that can access the print server by IP. You can even share your printer to Internet users.

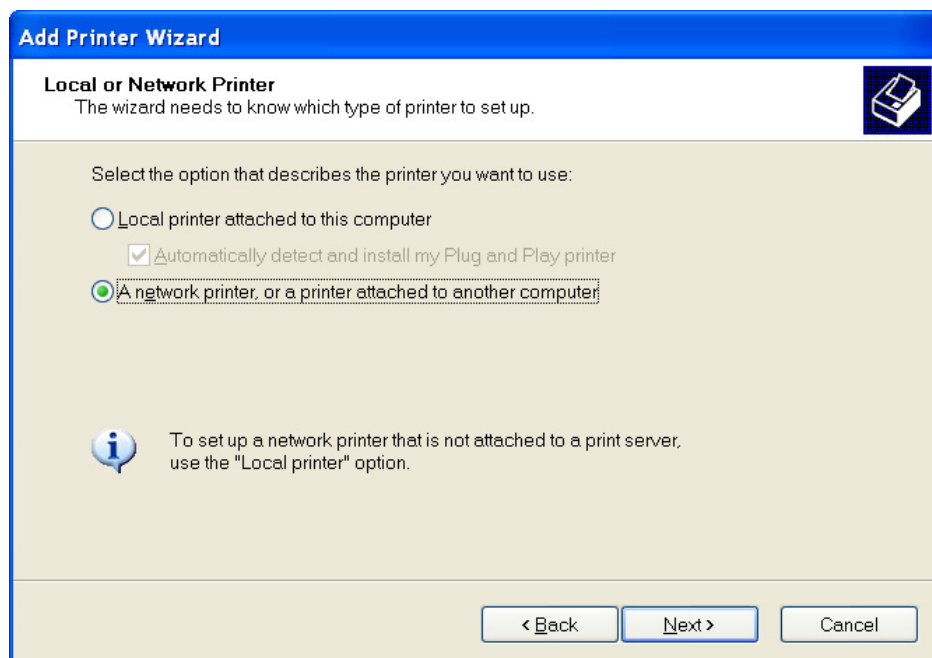
9.2 System Setup

9.2.1 Print Server Side

It is needless to do any setting on the print server side. Make sure the print server has correct IP settings. If you want to share the printers to Internet users, you have to set a real IP to the print server. You also have to make sure that any gateway, router or firewall does not block IPP protocol if you have these gateway devices installed in your network.

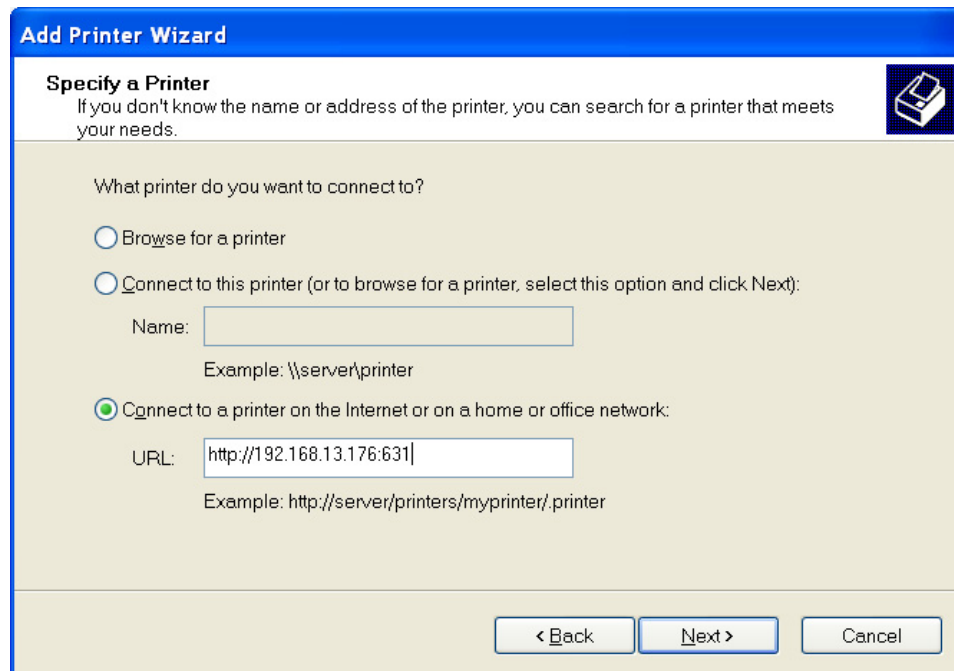
9.2.2 Client Side

You only need to perform Window's standard **Add New Printer** procedure, select **"Network Printer"** shown in the screen below and click "Next >".



Select "Connect to a printer on the Internet or on a home or office network" and enter the URL of print server. The URL format is "http://IP/LPT_PORT:631". The IP should be the print server's IP. LPT_PORT is the port name of print server that your print is connected to. For the one port print server, the port name is "lpt1". For the three port print server, the port name is one of the three – lpt1, lpt2 or lpt3. The last number 631 is IPP standard port number. One example of the URL is

"http://192.168.12.13/lpt1:631". After entering the URL of print server, click "Next >" and complete the configurations afterwards to access the shared printer.



The image shows a Windows XP-style "Add Printer Wizard" dialog box. The title bar is blue with the text "Add Printer Wizard". The main area has a light beige background. At the top left, it says "Specify a Printer" followed by a smaller instruction: "If you don't know the name or address of the printer, you can search for a printer that meets your needs." To the right of this text is a small icon of a printer. Below the instruction, there is a question: "What printer do you want to connect to?". There are three radio button options. The first is "Browse for a printer". The second is "Connect to this printer (or to browse for a printer, select this option and click Next):", followed by a text box labeled "Name:" and an example: "Example: \\server\\printer". The third option is selected, indicated by a green dot: "Connect to a printer on the Internet or on a home or office network:", followed by a text box labeled "URL:" containing the text "http://192.168.13.176:631" and an example: "Example: http://server/printers/myprinter/.printer". At the bottom right, there are three buttons: "< Back", "Next >", and "Cancel".

Add Printer Wizard

Specify a Printer
If you don't know the name or address of the printer, you can search for a printer that meets your needs.

What printer do you want to connect to?

☐ Browse for a printer

☐ Connect to this printer (or to browse for a printer, select this option and click Next):

Name:

Example: \\server\\printer

☒ Connect to a printer on the Internet or on a home or office network:

URL:

Example: http://server/printers/myprinter/.printer

< Back Next > Cancel