

MFP Print Server

User's Guide

Version 1.00 1/2007 Edition 2



About This User's Guide

Intended Audience

This manual is intended for people who want to configure the NPS-520 using the ZyXEL utility or the web configurator. You should have at least a basic knowledge of TCP/IP networking concepts and topology.

Related Documentation

• Quick Start Guide

The Quick Start Guide is designed to help you get up and running right away. It contains information on setting up your network and configuring for Internet access.

- Online Help Embedded web help for descriptions of individual screens and supplementary information.
- Supporting Disk Refer to the included CD for support documents.
- ZyXEL Web Site

Please refer to <u>www.zyxel.com</u> for additional support documentation and product certifications.

User Guide Feedback

Help us help you. Send all User Guide-related comments, questions or suggestions for improvement to the following address, or use e-mail instead. Thank you!

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Document Conventions

Warnings and Notes

These are how warnings and notes are shown in this User's Guide.



Warnings tell you about things that could harm you or your device.



Notes tell you other important information (for example, other things you may need to configure or helpful tips) or recommendations.

Syntax Conventions

- The NPS-520 may be referred to as the "NPS-520" or the "print server" in this User's Guide.
- Product labels, screen names, field labels and field choices are all in **bold** font.
- A key stroke is denoted by square brackets and uppercase text, for example, [ENTER] means the "enter" or "return" key on your keyboard.
- "Enter" means for you to type one or more characters and then press the [ENTER] key. "Select" or "choose" means for you to use one of the predefined choices.
- A right angle bracket (>) within a screen name denotes a mouse click. For example, Maintenance > Log > Log Setting means you first click Maintenance in the navigation panel, then the Log sub menu and finally the Log Setting tab to get to that screen.
- Units of measurement may denote the "metric" value or the "scientific" value. For example, "k" for kilo may denote "1000" or "1024", "M" for mega may denote "1000000" or "1048576" and so on.
- "e.g.," is a shorthand for "for instance", and "i.e.," means "that is" or "in other words".

Icons Used in Figures

Figures in this User's Guide may use the following generic icons. The NPS-520 icon is not an exact representation of your device.

| NPS-520 | Computer | Notebook computer |
|---------|-----------------|-------------------|
| | | |
| Server | Modem or Router | Printer |
| | - | |

Safety Warnings

For your safety, be sure to read and follow all warning notices and instructions.

- Do NOT use this product near water, for example, in a wet basement or near a swimming pool.
- Do NOT expose your device to dampness, dust or corrosive liquids.
- Do NOT store things on the device.
- Do NOT install, use, or service this device during a thunderstorm. There is a remote risk of electric shock from lightning.
- Connect ONLY suitable accessories to the device.
- Do NOT open the device or unit. Opening or removing covers can expose you to dangerous high voltage points or other risks. ONLY qualified service personnel should service or disassemble this device. Please contact your vendor for further information.
- Make sure to connect the cables to the correct ports.
- Place connecting cables carefully so that no one will step on them or stumble over them.
- Always disconnect all cables from this device before servicing or disassembling.
- Use ONLY an appropriate power adaptor or cord for your device.
- Connect the power adaptor or cord to the right supply voltage (for example, 110V AC in North America or 230V AC in Europe).
- Do NOT allow anything to rest on the power adaptor or cord and do NOT place the product where anyone can walk on the power adaptor or cord.
- Do NOT use the device if the power adaptor or cord is damaged as it might cause electrocution.
- If the power adaptor or cord is damaged, remove it from the power outlet.
- Do NOT attempt to repair the power adaptor or cord. Contact your local vendor to order a new one.
- Do not use the device outside, and make sure all the connections are indoors. There is a remote risk of electric shock from lightning.

This product is recyclable. Dispose of it properly.



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1

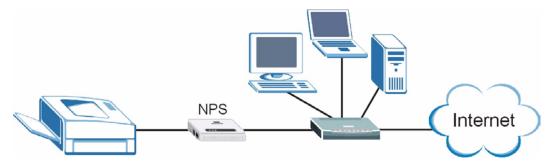
Introducing the NPS-520

This chapter introduces the main applications of the NPS-520. It also introduces the ways you can manage the NPS-520.

1.1 Overview

The NPS-520 (labeled **NPS** in the following graphic) is a print server that allows the computers in a network to share a printer, especially a multi-function printer (MFP). A MFP is a printer that can also work as a scanner, fax machine, copy machine, card reader and so on. The NPS-520 has one USB port and one Ethernet port. If a MFP comes with a USB port but no Ethernet port, the NPS-520 allows you to connect the MFP to your network and provides users on the network with shared access to the printer.

Figure 1 Application Overview



Windows 2000 SP4 and later computers connected to the NPS-520 can use all features available on an MFP, such as copying, printing, scanning and so on. They should also support LPR (Line Printer Remote) or IPP (Internet Printing Protocol). Other computers connected to the NPS-520 can only use the printer to print. Computers must take turns using the printer.

1.2 Ways to Manage the NPS-520

Use any of the following methods to manage the NPS-520.

- ZyXEL Utility. The utility is a tool that helps you configure the NPS-520 in a Windows computer.
- Web Configurator. You must use the web configurator if your are using a Linux/UNIX or Macintosh computer.

1.3 Good Habits for Managing the NPS-520

Do the following things regularly to make the NPS-520 more secure and to manage the NPS-520 more effectively.

- Change the password. Use a password that's not easy to guess and that consists of different types of characters, such as numbers and letters.
- Write down the password and put it in a safe place. If you forget your password, you will have to reset the NPS-520 to its factory default settings.

1.4 Hardware and Utility Installation

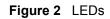
Follow the instructions in the Quick Start Guide to make hardware connections and install the ZyXEL utility.

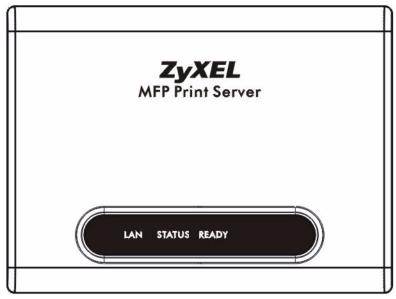
1.5 The Reset Button

If you forget the password and cannot access the ZyXEL utility's **TCP/IP Setting** and **System Setting** screens or the web configurator, you will need to use the **Reset** button on the side of the NPS-520. This means you will lose all configurations that you had previously. The password will be reset to 1234 and the IP address will be reset to 192.168.1.6.

- 1 Make sure the **Ready** LED on the NPS-520's panel is on (not blinking).
- 2 Press the **Reset** button for more than five seconds and then release it.
- **3** The **Ready** LED is off when you press the button. Then the **Ready** and **Status** LEDs flash once.
- **4** When the **Ready** LED turns steady on, the defaults have been restored and the NPS-520 is ready.

1.6 LEDs





The following table describes the lights (LEDs) on the NPS-520.

| Table | 1 | LEDs |
|-------|---|------|
| | | |

| LED | COLOR | STATUS | DESCRIPTION |
|--------|-------|----------|--|
| LAN | Blue | On | The NPS-520 has a successful connection on this port. |
| | | Blinking | The NPS-520 is sending/receiving data on this port. |
| | | Off | The NPS-520 does not have a connection on this port. |
| STATUS | Blue | On | Firmware upload is in progress or the printer has a paper jam or is out of paper. |
| | | Blinking | The NPS-520 is connected to a printer or sending a print job to a printer. |
| | | Off | The NPS-520 is not connected to a printer or receives no print jobs. |
| READY | Blue | On | The system is ready. |
| | | Off | The NPS-520 is not receiving power or failed to restart or firmware upload was not successful. |

2 ZyXEL Utility

This chapter shows you how to use the ZyXEL utility to configure your NPS-520.

2.1 Accessing the ZyXEL Utility

To open the ZyXEL utility, double-click the ZyXEL utility icon (⁴/₄) in the system tray or click Start > (All) Programs > ZyXEL NPS-520 Utility > NPS-520 Utility.



Click the help icon (?) (located in the top right corner) to display the online help window.

2.2 ZyXEL Utility Icon

After you install and start the ZyXEL utility, an icon for the ZyXEL utility appears in the system tray.

Figure 3 ZyXEL Utility: System Tray Icon

🕵 🗟 🥪 🗊 11:24 AM

The ZyXEL utility system tray icon indicates the status of the NPS-520. Refer to the following table for details.

 Table 2
 ZyXEL Utility: System Tray Icon

| ICON | DESCRIPTION |
|----------|---|
| K | The NPS-520 is not powered on or not connected to your computer or network. |
| E | The NPS-520 is not connected to a printer or other client computer is using the printer connected to the NPS-520. |
| 2 | The NPS-520 is powered on and connected to a printer. |

2.3 ZyXEL Utility Screen Summary

This section describes the ZyXEL utility screens.

Figure 4 ZyXEL Utility Menu Summary



The following table describes the menus.

Table 3 ZyXEL Utility Menu Summary

| ТАВ | DESCRIPTION |
|-----------------|--|
| Status | Use this screen to scan for a print server in your network. associate with a printer that is connected to the NPS-520. view your current connection status. |
| General Setting | Use this screen to configure if you want to open the utility when you start the computer and general settings. |
| TCP/IP Setting | Use this screen to either manually configure the NPS-520's IP address and subnet mask and a gateway IP address or set the NPS-520 to get the TCP/IP information from a DHCP server. |
| System Setting | Use this screen to configure the NPS-520's description and password, upload firmware, reset the factory defaults, restart the NPS-520 and drop the connection between the printer and the associated computer. |

2.4 The Status Screen

When the ZyXEL utility starts, the **Status** screen displays, showing the current configuration and connection status of the NPS-520.

| Figure 5 | ZyXEL | Utility: | Status |
|----------|-------|----------|--------|
|----------|-------|----------|--------|

| nt Se | erver List | | Device Information |
|-------|-----------------|---|---|
| ₫ | Name NPS-520 | Connected Printer Model HP PSC 1600 series | MAC Address: 00:00:84:CA:26:05 FW Version: 4.5.25 Status: Connected Computer Name: TW11947 |
| uto I | Release: O D | visable Vhen idle time 5 | User's Contact: ZyXEL 4F Description: Print Server Auto Connect: Disable |

The following table describes the labels in this screen.

Table 4 ZyXEL Utility: Status

| LABEL | DESCRIPTION |
|----------------------------|--|
| Print Server List | The table below shows you the available print server(s) in your network. |
| | denotes that a printer is connected to the print server, but your computer is not associated with the printer. |
| , or | denotes that there is no printer connected to the print server. |
| or 💿 | denotes that a printer is connected to the print server, and your computer is also associated with the printer. |
| | denotes that the print server is busy and the printer connected is not available. |
| Name | This field displays the NPS-520's name that you can configure during installing the utility or in the System Setting screen. |
| Connected Printer Model | This field displays the model name of the printer that is currently connected to the NPS-520. This field is blank if there is no printer connected to the NPS-520. |

| | ity: Status (continued) |
|--------------------|---|
| LABEL | DESCRIPTION |
| Auto Release | This allows you to configure whether your computer will be disconnected from the printer when there is no request sent to the printer. |
| | Note: The Auto Release and Auto Connect features are not configurable if your computer operating system version is older then Windows 2000 SP4. |
| | Select Disable to have your computer always connect to the printer even when there is no traffic between the computer and the printer. |
| | Note: If you disable Auto Release , only your computer can use the printer. Click Disconnect to manually drop the connection between your computer and the printer. |
| | Select When idle time and select a period of idle time (in minutes) that elapses before the NPS-520 drop the connection between the computer and the printer. |
| | Note: It's strongly recommended that you enable Auto Release and/or Auto Connect on all Windows computers. This allows computers in the network take turns to use the printer. |
| Device Information | Click an entry in the Print Server List table to display the information of the selected print server. |
| MAC Address | This is the MAC address of the print server. |
| FW Version | This is the version of the current firmware on the print server. |
| Status | This shows whether your computer is associated with the printer (that is connected to the selected print server) (Connected) or not (Disconnected). |
| Computer Name | This is your computer's "Computer Name". |
| User's Contact | This is your computer's contact information that you configured in the General Setting screen. |
| Description | This is the NPS-520's descriptions that you can configure during installing the utility or in the System Setting screen. |
| Auto Connect | This shows whether the Auto Connect feature is active (Enable) or not (Disable). |
| Connect | Select an entry in the Print Server List table and use this button to associate your computer with the printer which is connected to the print server. If a computer is connected to the printer already, this button is not applicable. |
| Disconnect | Select an entry in the Print Server List table and use this button to drop the connection between your computer and the printer which is connected to the print server. |
| | If another computer in your network is connected to the printer, this button is not applicable. Use the Force Release button in the System Setting screen to disconnect the connection between the printer and another computer. |

~ . . , ..

| LABEL | DESCRIPTION |
|--------------|--|
| Refresh | Use this button to scan for the available print server(s) in your network again and update the table above. |
| Auto Connect | Use this button to have the NPS-520 automatically associate your computer with the specified printer when you send out a job and the printer is available. When you click this button, a screen displays. Select a printer which is added to your computer and connected to the NPS-520, and click OK . |
| | Select a Printer Queue that is connected to your Print Server. Printer: HP PSC 1600 series |
| | OK Cancel |
| | Note: When your print job is done and there is no other request (from your computer) sent to the printer in 20 seconds, the NPS-520 drops the connection between your computer and the printer. |

 Table 4
 ZyXEL Utility: Status (continued)

2.5 The General Setting Screen

Use this screen to specify whether you want to open the utility when you start the computer or minimize the utility screen.

| | Status | General Setting | TCP/IP Setting | System Setting |
|---------------------|--------|----------------------------|----------------|-----------------------|
| eneral So Run Zy | | r Utility when Windows st. | arts | |
| 2.2 | | system when starts ZyXE | | |
| | | mation ZyXEL 4F | | (Up to 15 characters) |
| | | | | |

Figure 6 ZyXEL Utility: General Setting

The following table describes the labels in this screen.

| LABEL | DESCRIPTION |
|--|--|
| General Setting | |
| Run ZyXEL Print Server Utility when Windows starts | Select this check box to have the ZyXEL utility open automatically each time you start Windows. |
| Run minimized mode in system when starts ZyXEL Print Server Utility | Select this check box to minimize the ZyXEL utility screen each time you start the utility. To restore it, double-click the utility icon in the system tray. |
| User's Contact Information | Enter your contact information (of up to 15 printable characters long), such as your location. |
| Save | Click this button to save your changes to the NPS-520. |
| Cancel | Click this button to return to the Status screen without saving changes. |

Table 5 ZyXEL Utility: General Setting

2.6 The TCP/IP Setting Screen

Use this screen to configure the NPS-520's TCP/IP settings, such as IP address, subnet mask and gateway.

When you click the **TCP/IP Setting** tab, the following login screen displays. Select the name of your NPS-520 and enter the password (1234 by default).

Figure 7 ZyXEL Utility: Login

| 9 | Print Server: | NPS-520 |
|---|---------------|----------------|
| | Password: | **** |
| | OK | Refresh Cancel |

After you click **OK**, the **TCP/IP Setting** screen appears.

| Figure 8 | 7vXFI | Utility. | TCP/IP | Setting |
|-----------|-------|----------|--------|---------|
| i iguic o | ~ | Ounty. | 101/11 | Ocung |

| MP Setting | | | | | | |
|---|--------------------------------------|-------------|----------------|---------------|--------------|-----------|
| Print Server: N | PS-520 | | | | | |
| • Static IP You may chan ZyXEL Print Se | ge the IP Address and erver | l Subnet Ma | ask if you are | using diff | erent netwo | ork from |
| IP Address | 192.168.1.6 | | | | | |
| Subnet Mask | 255.255.255.0 | | | | | |
| Gateway | 0.0.0.0 | | | | | |
| O Dynamic IP Select Dynami Address from | c IP if there is a DHCP your DHCP | Server in y | /our network. | . It will aut | omatically ç | jet an IP |
| IP Address | 0.0.0:0 | | | | | |
| | 0.0.0.0 | | | | | |
| Subnet Mask | | | | | | |

The following table describes the labels in this screen.

Table 6 ZyXEL Utility: TCP/IP Setting

| LABEL | DESCRIPTION |
|--------------|--|
| Print Server | This is the NPS-520's descriptive name you configure in the System Setting screen. |
| Static IP | Select this option if there is not a DHCP server in the network to which the NPS-520 is connected and configure the TCP/IP information in the fields below. |
| IP Address | Enter the IP address of the NPS-520. The IP address should be in the same subnet of the network to which the NPS-520 is connected. |
| | Note: The NPS-520's default IP address is 192.168.1.6. |
| Subnet Mask | Enter the subnet mask of the NPS-520. |
| Gateway | Enter the IP address of the default gateway in the network to which the NPS- 520 is connected. |
| Dynamic IP | Select this option to have the DHCP server (in the network to which the NPS- 520 is connected) assign the NPS-520 an IP address automatically. The fields below are grayed out when you select this option. |
| | Note: We recommend you give the NPS-520 a static IP address or configure your DHCP server to always give it the same IP address (static DHCP). If the NPS-520's IP address changes, you need to uninstall and reinstall the ZyXEL utility on each computer that uses it. |

| LABEL | DESCRIPTION | | | | |
|--------|---|--|--|--|--|
| Save | Click this button to save your changes to the NPS-520. | | | | |
| | After you click the Save button, the following screen displays showing you the configured TCP/IP information. Click Reboot Now to restart the NPS-520 and have your new settings take effect immediately. Otherwise, click Reboot Later to restart the NPS-520 after you finish all changes. | | | | |
| | You have made change as follows. To bring the new settings into effect, you have to reboot the device. You may click Reboot now for immediate rebooting or Reboot later for more changes. | | | | |
| | IP Address: 192.168.1.6 | | | | |
| | Subnet Mask: 255.255.255.0 | | | | |
| | Gateway: 0.0.0.0 | | | | |
| | Reboot Now Reboot Later | | | | |
| Cancel | Click this button to return to the Status screen without saving changes. | | | | |

 Table 6
 ZyXEL Utility: TCP/IP Setting (continued)

2.7 The System Setting Screen

This screen allows you to configure the NPS-520's description and password, upload firmware, reset the factory defaults, restart the NPS-520 and drop the connection between the printer and the associated computer.

When you click the **System Setting** tab, the following login screen displays. Select the name of your NPS-520 and enter the password (1234 by default).

Figure 9 ZyXEL Utility: Login

| 9 | | |
|---|----------------------------|----------------|
| | Print Server: Password: | NP5-520 |
| | | |
| | ОК | Refresh Cancel |

After you click **OK**, the **System Setting** screen appears.

| ystem Setting | - N | | |
|--------------------------|---------------|-----------------------|--|
| No. No. 1974 | - | | |
| Print Server Name | NPS-520 | | |
| Change Password | | | |
| Retype Password | | | |
| Print Server Description | Print Server | (Up to 15 characters) | |
| Save Cancel | | | |
| Firmware Upgrade | [| Browse Upgrade | |
| Reset to factory default | ОК | | |
| System Reboot | Reboot Now | | |
| Port Force Release | Force Release | | |

Figure 10 ZyXEL Utility: System Setting

The following table describes the labels in this screen.

| Table 7 ZyXEL | Utility: S | System | Setting |
|-----------------------|------------|--------|---------|
|-----------------------|------------|--------|---------|

| LABEL | DESCRIPTION |
|-----------------------------|--|
| System Setting | |
| Print Server Name | Enter a descriptive name to replace the NPS-520's unique generated device name (the last three characters of the NPS-520's MAC address with the prefix "ZyXEL"). You can enter up to 15 printable characters. Spaces are allowed. |
| Change Password | Type a new administrator password for configuring the TCP/IP and system settings. You can enter up to seven printable characters. Spaces are allowed. Please note as you type a password, the screen displays a * for each character you type. |
| Retype Password | Type the new password for confirmation. |
| Print Server Description | Type additional descriptive text for the NPS-520 if you want. You can enter up to 15 ASCII characters. Spaces are allowed. |
| Save | Click this button to save your changes to the NPS-520. |
| Cancel | Click this button to return to the Status screen without saving changes. |
| Firmware Upgrade | Type in the location of the .bin file you want to upload in this field or click Browse to find it. |
| Browse | Click Browse to find the .bin file you want to upload. Remember that you must decompress compressed (.zip) files before you can upload them. Find firmware at www.zyxel.com in a file that (usually) uses the system model name with a .bin extension. |

| LABEL | DESCRIPTION |
|-----------------------------|--|
| Upgrade | Click Upgrade to begin the upload process. The following screen displays when the upload is successful. Click OK to go back to the System Setting screen. |
| | Upgrade successful I OK Note: Only upload firmware for your specific model. Note: Do not turn off the NPS-520 while firmware upload is in |
| | process. |
| Reset to factory default | Click OK to clear all user-entered configuration information and return the NPS- 520 to its factory defaults. When the following displays, click OK to go back to the System Setting screen. |
| | Reset to factory default complete. Please Reboot Server To Take Effect ! OK You can also use the hardware Reset button to reset the factory defaults of |
| | your NPS-520. See Section 1.5 on page 18 for more information on the Reset button. |

 Table 7
 ZyXEL Utility: System Setting (continued)

| LABEL | DESCRIPTION |
|--------------------|---|
| System Reboot | Click Reboot Now to restart your NPS-520 without turning the power off. This allows your current new settings to take effect immediately but does not return the NPS-520 to its default configuration. When the NPS-520 finishes rebooting, the following screen displays. Click OK to go back to the System Setting screen. |
| Port Force Release | Use the Force Release button to drop the connection between the printer and a computer. When a computer is always occupying the connection to the printer without enabling Auto Release and/or Auto Connect , you can stop that computer's connection to the printer by using this feature from the utility on your computer. |

 Table 7
 ZyXEL Utility: System Setting (continued)

2.8 The About Screen

The **About** screen displays driver and utility version numbers of the NPS-520. To display the screen as shown below, click the about () button.

Figure 11 About



The following table describes the read-only fields in this screen.

| Table 8 About | |
|-----------------|---|
| LABEL | DESCRIPTION |
| Driver version | This field displays the version number of the NPS-520 driver. |
| Utility version | This field displays the version number of the ZyXEL utility. |

2.9 Uninstalling the ZyXEL Utility

You might need to uninstall the utility if you are upgrading to a new utility or re-installing the existing one if there were problems the first time.

Follow the steps below to remove (or uninstall) the ZyXEL utility from your computer.

- 1 Click Start, (All) Programs, ZyXEL NPS-520 Utility, Uninstall.
- 2 When prompted, click Yes to remove the driver and the utility software.

Figure 12 Uninstall: Confirm

| ZyXEL NPS-520 Ut | ility - InstallShiel | ld Wizard | |
|---------------------|------------------------|---------------------------|--------------------|
| Do you want to comp | letely remove the sele | ected application and all | of its components? |

3 Click **Finish** to complete uninstalling the software and restart the computer when prompted.

Figure 13 Uninstall: Finish

| ZyXEL NPS-520 Utility - Inst | allShield Wizard |
|------------------------------|--|
| | |
| | Maintenance Complete |
| | InstallShield Wizard has finished performing maintenance operations on ZyXEL NPS-520 Utility. |
| | Yes, I want to restart my computer now. No, I will restart my computer later. Remove any disks from their drives, and then click Finish to complete setup. |
| InstallShield | < Back Finish Cancel |

2.10 Upgrading the ZyXEL Utility

To perform the upgrade, follow the steps below.

- **1** Download the latest version of the utility from the ZyXEL web site and save the file on your computer.
- **2** Follow the steps in Section 2.9 on page 32 to remove the current ZyXEL utility from your computer.
- **3** Restart your computer when prompted.

- **4** Double-click on the setup program for the new utility to start the ZyXEL utility installation.
- **5** Check the version numbers in the **About** screen to make sure the new utility is installed properly.

3

Web Configurator

This chapter describes how to configure the NPS-520 using the web configurator.

3.1 Web Configurator Overview

The web configurator is an HTML-based management interface that allows easy NPS-520 setup and management via Internet browser. Use Internet Explorer 6.0 and later or Netscape Navigator 7.0 and later versions. The recommended screen resolution is 1024 by 768 pixels.

In order to use the web configurator you need to allow:

- Web browser pop-up windows from your device. Web pop-up blocking is enabled by default in Windows XP SP (Service Pack) 2.
- JavaScripts (enabled by default).
- Java permissions (enabled by default).

See Appendix C on page 95 if you want to make sure these functions are allowed in Internet Explorer or Netscape Navigator.

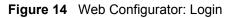
3.2 Accessing the NPS-520 Web Configurator

- 1 Make sure your NPS-520 hardware is properly connected and prepare your computer/ computer network to connect to the NPS-520 (refer to the Quick Start Guide).
- **2** Launch your web browser.
- **3** Type "192.168.1.6" as the URL.



The NPS-520's default IP address is 192.168.1.6.

4 Type "1234" (default) as the password and click **Login**. In some versions, the default password appears automatically - if this is the case, click **Login**.



| ZyXE | |
|-------------------------|---|
| | NPS-520 |
| | Welcome to NPS-520 |
| | Enter Password and click to login. |
| | 🔒 Password: |
| | (max. 7 printable characters) |
| 🐧 Note: | |
| Please tur Explorer. | n on the Javascript and ActiveX control setting on Internet |
| | Login Reset |
| | |

5 You should now see the **Status** screen (see Figure 15 on page 36).

3.3 Navigating the NPS-520 Web Configurator

The following summarizes how to navigate the web configurator from the Status screen.

Figure 15 Web Configurator: Main Screen

| ZyXEL | | | | | <u> </u> |
|---|--|--|--------------------|---|---|
| Status | li status | | | Refresh Interval: None | Refresh Now |
| Status | System Inform | ation | | Printer Status | |
| NPS-520 - System - Setup TCP/IP - Utilities - Firmware Upgrade - Load Defaults - Restart Server | Device Name: Print Server Name Model Type: Firmware Version: MAC Address: RAW Printing: IPP Printing: LPR Printing: | NPS-520 V1.00(ZR.2)b: 00:00:B4:CA: Enable Enable Enable | | Printer Model Number: Manufacturer : Printing Language Supported : | PSC 1600 series HP MCL,PCL,PML,DW-PCL,DESKJET |
| | off 192 | lr/Netmask .168.1.6 / 255.255.0 | Gateway 0.0.0.0 | | |
| | Message | Ready |) | | <u> </u> |

As illustrated above, the main screen is divided into these parts:

- A title bar
- **B** navigation panel
- C main window

• **D** - status bar

3.3.1 Title Bar

The title bar provides some icons in the upper right corner.

The icons provide the following functions.

 Table 9
 Title Bar: Web Configurator Icons

| ICON | DESCRIPTION |
|------|---|
| ? | Help: Click this icon to open the help page for the current screen. |
| | About : Click this icon to open the about screen where you can view driver and utility version numbers of the NPS-520. |
| | Logout: Click this icon to exit the web configurator. |

3.3.2 Navigation Panel

After you enter the password, use the menus on the navigation panel to configure NPS-520 features.

The following table describes the menus.

| LINK | SUB-MENU | FUNCTION |
|--------------|---------------------|---|
| Status | | This screen shows the NPS-520's general device, printer status and TCP/IP information. |
| System | | Use this screen to change your administrative information and system password. |
| Setup TCP/IP | | Use this screen to configure TCP/IP and DHCP settings. |
| Utilities | Firmware Upgrade | Use this screen to upload firmware to your NPS-520 |
| | Load Defaults | Use this screen to reset the factory defaults (the password is 1234 and the IP address is 192.168.1.6). |
| | Restart Server | This screen allows you to reboot the NPS-520 without turning the power off. |

| Table 10 | Screens Summary | |
|----------|-----------------|--|
| | Screens Summary | |

3.3.3 Main Window

The main window shows the screen you select in the navigation panel. It is discussed in more detail in the rest of this document.

Right after you log in, the Status screen is displayed.

3.4 The Status Screen

This screen displays general status information about the NPS-520.

| Status | | | | | | |
|--|----------|--------------------------|---------|----------------------------------|---------------------------|--|
| | | | | Refresh Interval: None | Refresh Now | |
| System Information | | | | Printer Status | | |
| Device Na | me: | ZyXEL605 | | Printer Model Number: | PSC 1600 series | |
| Print Serve | er Name: | NPS-520 | | Manufacturer : | HP | |
| Model Type: Firmware Version: MAC Address: | | NPS-520 V1.00(ZR.2)b2 | | Printing Language Supported : | MCL,PCL,PML,DW-PCL,DESKJE | |
| | | | | | | |
| | | RAW Printi | ng: | Enable | | |
| IPP Printin | g: 🚺 | Enable | | | | |
| LPR Printin | ig: | Enable | | | | |
| TCP/IP | Informa | tion | | | | |
| | | | | | | |
| DHCP | IP Add | r/Netmask | Gateway | 1 | | |

Figure 16 Web Configurator: Status

The following table describes the labels in this screen.

| LABEL | DESCRIPTION |
|-----------------------|--|
| Refresh Interval | Select a number of seconds or None from the drop-down list box to update all screen statistics automatically at the end of every time interval or to not update the screen statistics. |
| Refresh | Click this button to update the status screen statistics immediately. |
| System Information | |
| Device Name | This is the default name of your NPS-520. It begins with "ZyXEL" and is followed by the last three characters of the NPS-520's MAC address. |
| Print Server Name | This is the Server Name you enter in the System screen. It is for identification purposes. |
| Model Type | This is the model name of your NPS-520. |
| Firmware Version | This is the version of the Firmware currently on the NPS-520. |
| MAC Address | This is the MAC (Media Access Control) address of the NPS-520. Every device that can use a network has a unique identification number, called a MAC address. The MAC address is assigned at the factory and consists of six pairs of hexadecimal characters ^A , for example, 00:A0:C5:00:00:02. |
| RAW Printing | This indicates that the NPS-520 supports the RAW printing protocol (Enable). |
| IPP Printing | This indicates that the NPS-520 supports the IPP printing protocol (Enable). |
| LPR Printing | This indicates that the NPS-520 supports the LPR printing protocol (Enable). |
| TCP/IP Information | |
| DHCP | If the NPS-520 is set to get its IP address automatically from a DHCP server in the network to which the NPS-520 is connected, this displays On . If the NPS-520 is using a manually entered static (fixed) IP address, this displays Off . |
| IP Addr/Netmask | This shows the NPS-520's IP address and subnet mask. |
| Gateway | This shows the gateway's IP address you configured in the Setup TCP/IP screen. |

 Table 11
 Web Configurator: Status

| LABEL | DESCRIPTION |
|--------------------------------|---|
| Printer Status | These fields are blank if no printer is connected. |
| Printer Model Number | This displays the model name of the printer currently connected to the NPS-520. |
| Manufacturer | This displays the manufacturer name of the printer currently connected to the NPS-520. |
| Printing Language Supported | This displays the printing languages supported by the printer currently connected to the NPS-520. |

 Table 11
 Web Configurator: Status (continued)

A. Hexadecimal characters are 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, and F.

3.5 The System Screen

Use this screen to change the NPS-520's system name and management password.

Figure 17 Web Configurator: System

| erver Name Setup | | | |
|------------------|----------|--|--|
| Server Name | ZYXEL605 | | |
| assword Setup | | | |
| Password | **** | | |
| Re-type Password | **** | | |

The following table describes the labels in this screen.

 Table 12
 Web Configurator: System

| LABEL | DESCRIPTION |
|----------------------|--|
| Server Name Setup | |
| Server Name | Enter a descriptive name for identification purposes. By default, the generated server name begins with "ZyXEL" and is followed by the last three characters of the NPS-520's MAC address. |
| | This name can be up to 30 alphanumeric characters long. Spaces are not allowed, but dashes "-" and underscores "_" are accepted. |
| Password Setup | |
| Old Password | Type the default password or the existing password you use to access the system in this field. If you forget the password, you may have to use the hardware RESET button. This restores the default password of 1234. |
| Password | Type your new system password (up to 7 printable characters). Note that as you type a password, the screen displays a (*) for each character you type. |
| Re-type Password | Type the new password again for confirmation. |

| Table 12 Web Configurator: System (continued) | | |
|---|--------|--|
| | LABEL | DESCRIPTION |
| | Apply | Click Apply to save your changes back to the NPS-520. |
| | Cancel | Click Cancel to exit this screen without saving and go to the Status screen. |

10 Web Configurators C (acation - -1

3.6 The Setup TCP/IP screen

Use this screen to configure the NPS-520's IP address and other TCP/IP settings.

Figure 18 Web Configurator: TCP/IP

| P Address Assignme | ent | | |
|--------------------|----------|--|--|
| Obtain IP automa | itically | | |
| C Use Fixed IP Add | ress | | |
| IP Address | | | |
| Subnet Mask | | | |
| Gateway | | | |

The following table describes the labels in this screen.

Table 13 Web Configurator: TCP/IP

| LABEL | DESCRIPTION | | |
|----------------------------|--|--|--|
| IP Address Assignment | Use this section to configure the NPS-520's IP address. | | |
| | Note: If you changed the NPS-520's IP address, use the new IP address to access the web configurator again. If you set the NPS-520's to get an IP address from a DHCP server, check the DHCP server for the NPS-520's new IP address. | | |
| | Note: After you changed the NPS-520's IP address and click Apply , make sure you click the Logout icon in the upper right corner before you use the new IP address to access the web configurator again. | | |
| Obtain IP automatically | Select this option to have the DHCP server assign the NPS-520 an IP address automatically when there is a DHCP server in the network to which the NPS-520 is connected. | | |
| | Note: We recommend you give the NPS-520 a static IP address or configure your DHCP server to always give it the same IP address (static DHCP). If the NPS-520's IP address changes, you need to uninstall and reinstall the ZyXEL utility on each computer that uses it. | | |

| LABEL | DESCRIPTION |
|-------------------------|--|
| Use Fixed IP Address | Select this option If you want to assign a fixed IP address to the NPS-520 manually. Configure the fields below. |
| | Note: The NPS-520's IP address should be in the same subnet as the network to which the NPS-520 is connected. |
| IP Address | Type the IP address of your NPS-520 in dotted decimal notation. 192.168.1.6 is the factory default. |
| Subnet Mask | Enter the subnet mask that specifies the network number portion of an IP address. |
| Gateway | Enter the gateway IP address (if there is one) in this field if you selected Use Fixed IP Address . |
| Apply | Click Apply to save your changes back to the NPS-520. |
| Cancel | Click Cancel to exit this screen without saving and go to the Status screen. |

 Table 13
 Web Configurator: TCP/IP (continued)

3.7 The Utilities Screen

The **Utilities** screens can help you upload new firmware, reset the factory defaults and restart your NPS-520.

3.7.1 Firmware Upgrade

Find firmware at www.zyxel.com in a file that (usually) uses the system model name with a .bin extension, for example, "NPS-520.bin". The upload process uses HTTP (Hypertext Transfer Protocol) and may take up to two minutes. After a successful upload, the system will reboot.

Click **Utilities** > **Firmware Upgrade**. Follow the instructions in this screen to upload firmware to your NPS-520.



Only upload firmware for your specific model!

| Figure 19 | Web Configurator: Utilities > Firmware Upgra | de |
|-----------|--|----|
| | | |

| Firmware Upgrade | Load Factory Default Restart Server |
|------------------|---|
| Firmware Upgrade | |
| | ernal router firmware, browse to the location of the binary (.BIN) upgrade file Upgrade files can be downloaded from website. If the upgrade file is |

The following table describes the labels in this screen.

 Table 14
 Web Configurator: Utilities > Firmware Upgrade

| LABEL | DESCRIPTION |
|-----------|---|
| File Path | Type in the location of the file you want to upload in this field or click Browse to find it. |
| Browse | Click Browse to find the .bin file you want to upload. Remember that you must decompress compressed (.zip) files before you can upload them. |
| Upload | Click Upload to begin the upload process. This process may take up to two minutes. |

Click **OK** when a screen displays asking you to confirm that you want to upload the firmware.

Figure 20 Firmware Upload Confirmation

| Microsof | t Internet Explorer 🛛 🔀 |
|----------|---|
| ? | Do you wish to continue with the upgrade process? |
| | Cancel |

Click **OK** when a screen displays asking you not to turn off the NPS-520 during firmware upgrade.

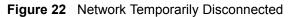
Figure 21 Firmware Upload Warning





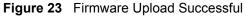
Do not turn off the NPS-520 while firmware upload is in progress!

The NPS-520 automatically restarts in this time causing a temporary network disconnect. In some operating systems, you may see the following icon on your desktop.





After you see the **Upgrade Successful** screen, wait 30 seconds before logging into the NPS-520 again.



| ZyXEL |
|---|
| Upgrade Sucessful. Reboot Now. Please Wait |
| The NPS-520 will now reboot. As there will be no indication of when the process is complete, please wait for 30 seconds before attempting to access the server again. |
| |

After 30 seconds, log in again and check your new firmware version in the Status screen.

3.7.2 Load Defaults

Click Utilities > Load Defaults to open the following screen. Click the Reset button to clear all user-entered configuration information and return the NPS-520 to its factory defaults as shown on the screen.

Figure 24 Web Configurator: Utilities > Load Defaults

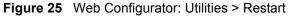
| irmware Upgrade | Load Factory Default | Restart Server | |
|---|---------------------------------|-------------------------------|------------------|
| Reset Configuration | 1 | | |
| olisi. Deserve alas | r all user-entered configuratio | n information and return to f | actory defaults. |
| | an abor oncoroa conngarado | | |
| After resetting, the - Password will be 1 - LAN IP address wi | .234 | | |

You can also press the hardware **Reset** button to reset the factory defaults of your NPS-520. Refer to Section 1.5 on page 18 for more information on the **Reset** button.

3.7.3 Restart Screen

System restart allows you to reboot the NPS-520 without turning the power off.

Click Utilities > Restart. Click Restart to have the NPS-520 reboot. Restart is different to reset; (see Section 3.7.2 on page 43) reset returns the device to its default configuration.





4

Adding a Printer on Your Computer

To use a printer, you need to install the printer driver and set up the printer on your computer. In Windows, you can also use the ZyXEL utility to set up a printer and/or associate an existing printer driver with the NPS-520. See your Quick Start Guide for more information.



You must have a printer with a driver and you need to know the IP address of the NPS-520.

4.1 Printing Protocol

Most printers or printing software allow sending or receiving jobs over an Intranet or the Internet. The NPS-520 supports the following printing protocols:

- LPR (Line Printer Remote)
- RAW
- IPP (Internet Printing Protocol)

If you want to use a printer on your local network, use LPR or RAW. If you want to use a printer on a remote network over the Internet, use IPP.

4.1.1 LPR

LPR (Line Printer Remote) is a cross-platform printing protocol that runs on a client computer and uses TCP/IP to establish connections between printers and computers on a network. It sends print jobs to a print server that is running LPD (Line Printer Daemon) protocol.

4.1.2 RAW

This is the data type for print job using languages, such as PCL or PortScript. The RAW protocol is the default printing protocol for most printer. The RAW-formatted job is sent to a print server on TCP port 9100 (standard).

To use RAW in Windows 98 SE, Windows Me or Windows NT, you need to install an additional software to add a network port for your print server.

LPR or RAW is always used when a user wants to use a printer on the local network.

4.1.3 IPP

IPP (Internet Printing Protocol) is used to send print jobs to a remote printer either directly on default IPP port 631 or using HTTP on port 80. This has been implemented in many operating systems, such as Microsoft and Novell. IPP is always used when the client computers send print jobs over the Internet.

If you want to share a printer with users on a remote network, you need to give the print server a public IP address or allows it accessible to the outside network. You also need to make sure your firewall allows IPP services over either port 80 or port 631.

Windows 2000, Windows 2003 and Windows XP support IPP v1.0. To print using IPP in Windows 98 SE or Windows Me, make sure the IPP client is installed on your computer.

4.2 Adding a Printer in Windows

This section shows you how to set up a printer in your Windows computer.

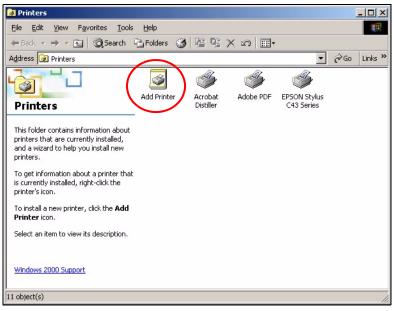
4.2.1 Windows 2000/XP/2003

We use the Windows 2000 screens here as an example. Screens and steps vary slightly for different Windows operating systems.

4.2.1.1 Printer Setup with LPR or RAW

- 1 Click Start > Settings > Printers.
- 2 Double-click the Add Printer icon in the Printers screen to start the Add Printer Wizard.

Figure 26 Windows 2000: Start > Settings > Printers



3 The Add Printer Wizard screen then displays. Click Next in each screen to continue.

| Figure 27 | Windows | 2000: / | Add | Printer | Wizard: | Welcome |
|-----------|---------|---------|-----|---------|---------|---------|
|-----------|---------|---------|-----|---------|---------|---------|

| Add Printer Wizard | | | | | | |
|--------------------|---|--|--|--|--|--|
| | Welcome to the Add Printer Wizard | | | | | |
| | This wizard helps you install a printer or make printer connections. | | | | | |
| | To continue, click Next. | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | < Back. Next> Cancel | | | | | |
| | | | | | | |

4 Select Local printer and click Next.

Figure 28 Windows 2000: Add Printer Wizard: Local or Network Printer

| Add Printer Wizard |
|--|
| Local or Network Printer Is the printer attached to your computer? |
| If the printer is directly attached to your computer, click Local printer. If it is attached to another computer, or directly to the network, click Network printer. Colored printer Automatically detect and install my Plug and Play printer Network printer |
| < <u>B</u> ack <u>N</u> ext> Cancel |

5 Select **Create a new port** and then **Standard TCP/IP Port** in the **Type** drop-down list box.

Figure 29 Windows 2000: Add Printer Wizard: Locate Your Printer

| Add Print | Add Printer Wizard | | | | | |
|-----------|--|--|---------------------|-------------------------|----------|--|
| | ct the Printe Computers com | er Port Imunicate with printers th | nrough ports. | | Ś | |
| ne | elect the port, ew port. 〕 <u>U</u> se the foll: | you want your printer to owing port: | use. If the port is | : not listed, you can o | preate a | |
| | Port | Description | Printer | | | |
| | LPT2: LPT3: COM1: COM2: COM3: COM4: | Printer Port Printer Port Serial Port Serial Port Serial Port Serial Port | | | | |
| | Note: Most | computers use the LPT1 | 1: port to commun | nicate with a local pri | inter. | |
| | Create a ne Type: | w port: Standard TCF | P/IP Port | | | |
| | | | < <u>B</u> ack | <u>N</u> ext > | Cancel | |

6 Make sure your NPS-520 and printer are already powered on and connected to your network. The first Add Standard TCP/IP Printer Port Wizard screen displays.

Figure 30 Windows 2000: Add Standard TCP/IP Printer Port Wizard



7 Enter the NPS-520's IP address in the **Printer Name or IP Address** field and click **Next**.

Figure 31 Windows 2000: Add Standard TCP/IP Printer Port Wizard: Add Port

| Standard TCP/IP Printer Por .dd Port For which device do you wan | | |
|--|---|--------|
| Enter the Printer Name or IP a | ddress, and a port name for the desired device. | |
| Printer Name or IP <u>A</u> ddress: | 192.168.1.6 |) |
| Port Name: | IP_192.168.1.6 | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | < Back Next> | Cancel |

8 Select **Custom** and then click **Settings...** to configure the printing protocol and port settings.

Figure 32 Windows 2000: Add Standard TCP/IP Printer Port Wizard: Port Information

| Add Standard TCP | /IP Printer Port Wizard | | | × |
|--|--|------------------------------|----------------|--------|
| | t Information Required could not be identified. | | | |
| The device is The network The device is The address If you think the a | | ect. ack to return to the | | |
| select the device Device Type C <u>S</u> tandard | | | | Y |
| • <u>C</u> ustom | Settings | | | |
| | | < <u>B</u> ack | <u>N</u> ext > | Cancel |

9 Select LPR and set Queue Name to "lpt1" or select Raw and set Port Number to "9100". Click OK to go back to the Add Standard TCP/IP Printer Port Wizard (see Figure 32 on page 49) and then click Next.

| Configure Standard TC | P/IP Port | Monitor | | <u>?</u> × |
|--------------------------------------|------------|------------|---------------|------------|
| Port Settings | | | | |
| Port Name: | | IP_192.168 | 3.1.6 | |
| Printer Name or IP <u>A</u> dd | ress: | 192.168.1. | 6 | |
| Protocol © <u>R</u> aw | | | ⊙ <u>L</u> PR | |
| Raw Settings Port <u>N</u> umber: | 9100 | | | |
| LPR Settings | lpt1 | | | |
| LPR Byte Countin | ng Enabled | l | | |
| SNMP Status En | abled | | | |
| Community Name: | public | | | |
| SNMP <u>D</u> evice Index | 1 | | | |
| | | | OK | Cancel |

Figure 33 Windows 2000: Configure Standard TCP/IP Port Monitor

10 Verify your printer port settings and click Finish to go back to the Add Printer Wizard.

Figure 34 Windows 2000: Add Standard TCP/IP Printer Port Wizard: Finish

| Add Standard TCP/IP Printer Port Wizard | | | × |
|---|---|--|---|
| | Completing the Add Standard TCP/IP Printer Port Wizard You have selected a port with the following characteristics. | | |
| | SNMP: Protocol: Device: Port Name: Adapter Type | No LPR, lpt1 192.168.1.6 IP_192.168.1.6 | |
| | To complete t | his wizard, click Finish. <u>< B</u> ack Finish Cancel | |

- **11** Select the make of the printer that you want to connect to the NPS-520 in the **Manufacturers** list.
- **12** Select the printer model from the list of **Printers**.
- **13** If your printer is not displayed in the list of **Printers**, you can insert the printer driver installation CD/disk or download the driver file to your computer, click **Have Disk...** and install the new printer driver.
- **14** Click **Next** to continue.

| Add Printer Wizard Add Printer Wizard The manufacturer | and model determine which printer to use. |
|---|--|
| disk, click Havi compatible prin | |
| Manufacturers: ColorAge Compaq Dataproducts Diconix Digital Epson | Printers: Epson Stylus Pro ESC/P 2 Epson Stylus Pro XL ESC/P 2 Epson Stylus Pro XL+ ESC/P 2 Epson T-1000 Epson T-750 V Windows Update Have Disk |
| | < Back Next > Cancel |

Figure 35 Windows 2000: Add Printer Wizard: Printer Driver

- **15** If the following screen displays, select **Keep existing driver** and click **Next** if you already have a printer driver installed on your computer and you do not want to change it. Otherwise, select **Replace existing driver** to replace it with the new driver you selected in the previous screen and click **Next**.
- Figure 36 Windows 2000: Add Printer Wizard: Use Existing Driver

| Add Printer Wizard | |
|---|---|
| Use Existing Driver A driver is already installed for this printer. You can use or replace the existing driver. | Þ |
| EPSON Stylus C43 Series | |
| Do you want to keep the existing driver or use the new one? Keep existing driver (recommended) Beplace existing driver | |
| < <u>B</u> ack <u>N</u> ext > Cancel | |

16 Type a name to identify the printer and then click **Next** to continue.

Figure 37 Windows 2000: Add Printer Wizard: Name Your Printer

| Add Printer Wizard | |
|---|---|
| Name Your Printer You must assign a name for this printer. | Ŷ |
| Supply a name for this printer. Some program combinations of more than 31 characters. Printer name: | is do not support server and printer name |
| EPSON Stylus C43 Series | |
| Do you want your Windows-based programs Tes No | to use this printer as the default printer? |
| | < <u>B</u> ack <u>N</u> ext > Cancel |

17 The NPS-520 is a print server itself and you do not need to have your computer act as a print server by sharing the printer with other users in the same network; select **Do not share this printer** and click **Next** to proceed to the following screen.

Figure 38 Windows 2000: Add Printer Wizard: Printer Sharing

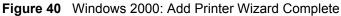
| dd Printer Wizard | |
|---|---|
| Printer Sharing You can share this printer with othe | er network users. |
| printer, you must provide a share na | ter to be available to other users. If you share this ame. |
| Do not share this printer | |
| ○ Share as: | |
| , | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | <back next=""> Cancel</back> |
| | |

18 Select **Yes** and then click **Next** if you want to print a test page. A pop-up screen displays to ask if the test page is printed correctly. Otherwise select **No** and then click **Next** to continue.

| Printer Wizard | | | |
|---|--------------------|----------------|--------|
| Print Test Page To confirm that the printer is installed prope | rly, you can print | t a test page. | Ì |
| Do you want to print a test page? | | | |
| • Yes | | | |
| ⊂ N <u>o</u> | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | < <u>B</u> ack | Neuts | Cancel |
| | < <u>B</u> ack | <u>N</u> ext > | Lancel |

Figure 39 Windows 2000: Add Printer Wizard: Print Test Page

19 The following screen shows your current printer settings. Select **Finish** to complete printer setup and close the wizard screen.



| Add Printer Wizard | | | | |
|--|--|--|--|--|
| Wizard You have s | Completing the Add Printer Wizard You have successfully completed the Add Printer wizard. | | | |
| You specifi | ed the following printer settings: | | | |
| Name: Shared as: Port: Model: Default: Test page: | EPSDN Stylus C43 Series <not shared=""> IP_192.168.1.6 EPSON Stylus C43 Series No</not> | | | |
| To close th | To close this wizard, click Finish. | | | |
| | < Back Finish Cancel | | | |

4.2.1.2 Printer Setup with IPP

- 1 Click Start > Settings > Printers.
- 2 Double-click the Add Printer icon in the Printers screen to start the Add Printer Wizard.

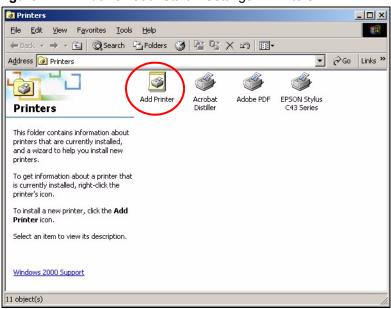


Figure 41 Windows 2000: Start > Settings > Printers

3 The Add Printer Wizard screen displays. Click Next.

Figure 42 Windows 2000: Add Printer Wizard: Welcome

| Add Printer Wizard | | | | |
|--------------------|---|--|--|--|
| | Welcome to the Add Printer Wizard | | | |
| | This wizard helps you install a printer or make printer connections. | | | |
| | To continue, click Next. | | | |
| | | | | |
| \leq | | | | |
| | | | | |
| | < Back Next> Cancel | | | |

4 Select Network printer and click Next.

Figure 43 Windows 2000: Add Printer Wizard: Local or Network Printer

| Add Printer Wizard | | | |
|---|-----------------|----------------|------------|
| Local or Network Printer Is the printer attached to your computer? | | | |
| If the printer is directly attached to your com another computer, or directly to the network | | | ttached to |
| C Local printer | | | |
| 🔲 Automatically detect and install my F | lug and Play pr | inter | |
| Network printer | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | < <u>B</u> ack | <u>N</u> ext > | Cancel |

5 Select **Connect to a printer on the Internet or on your intranet** and enter the URL of your NPS-520.

The URL should be in the format of http://address/631/port (where "address" is the IP address of your NPS-520, "631" is the standard IPP port number and "port" is the name of a parallel port on the computer for the USB printer, for example, http:// 192.168.1.6:631/lpt1. The default port name is "lpt1".

Click Next.

Figure 44 Windows 2000: Add Printer Wizard: Locate Your Printer

| Printer Wizard | |
|---|---|
| Locate Your Printer | 12 |
| How do you want to locate your printer? | × |
| If you don't know the name of the printer, y that has features you want. | ou can search for one in the right location |
| What do you want to do? | |
| Eind a printer in the Directory | |
| C Type the printer name, or click Next to | browse for a printer |
| Name: | |
| Connect to a printer on the Internet or | on your intranet |
| UBL: http://192.168.1.6:631/lpt1 | |
| | |
| | |
| | |
| | |
| | < <u>B</u> ack <u>N</u> ext> Cancel |

- 6 Select the make of the printer that you want to connect to the NPS-520 in the **Manufacturers** list.
- 7 Select the printer model from the list of **Printers**.
- 8 If your printer is not displayed in the list of **Printers**, you can insert the printer driver installation CD/disk or download the driver file to your computer, click **Have Disk...** and install the new printer driver.
- **9** Click **Next** to continue.

Add Printer Wizard Add Printer Wizard The manufacturer and model determine which printer to use. Select the manufacturer and model of your printer. If your printer came with an installation disk, click Have Disk. If your printer is not listed, consult your printer documentation for a compatible printer. Manufacturers: Printers: ColorAge Compaq Epson Stylus Pro ESC/P 2 Epson Stylus Pro XL ESC/P 2 Epson Stylus Pro XL+ ESC/P 2 Epson T-1000 Epson T-750 EPSON Stylus C43 Series Dataproducts Diconix -- $\underline{W} indows \, Update$ Have Disk. < <u>B</u>ack <u>N</u>ext > Cancel

Figure 45 Windows 2000: Add Printer Wizard: Printer Driver

10 Select **Yes** to set this printer as the default printer. Click **Next**.

Figure 46 Windows 2000: Add Printer Wizard: Default Printer

| Add Printer Wizard | | | |
|--|---------------------|-----------------------|--------|
| Default Printer Your computer will always send documents to otherwise. | o the default print | er unless you specif | |
| Do you want your Windows-based programs t | to use this printer | as the default printe | я? |
| • Yes | | | |
| © N <u>o</u> | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | < <u>B</u> ack | <u>N</u> ext > | Cancel |

11 The following screen shows your current printer settings. Select **Finish** to complete printer setup and close the wizard screen.

| Add Printer Wizard | | | | |
|--------------------|--|--|--|--|
| | Completing the Add Printer Wizard | | | |
| | You have successfully completed the Add Printer wizard. | | | |
| | You specified the following printer settings: | | | |
| | Name: unknown on http://192.168.1.6 Default: Yes Location: Comment: | | | |
| | To close this wizard, click Finish. | | | |
| | < Back Finish Cancel | | | |

Figure 47 Windows 2000: Add Printer Wizard Complete

4.2.2 Windows 98 SE/Me

When you install the ZyXEL utility in Windows 98 SE/Me, you also install a **Network Port Setup** tool to add an LPR network port for the NPS-520. If you want to use RAW printing in Windows 98 SE/Me, you need to install an additional software to add a network port.

This section shows you how to add a printer on your computer using the **Network Port Setup** tool that comes with the ZyXEL utility.

We use the Windows Me screens here as an example. Screens and steps vary slightly for different Windows operating systems.

- 1 Click Start > Settings > Printers.
- 2 Double-click the Add Printer icon in the Printers screen to start the Add Printer Wizard.

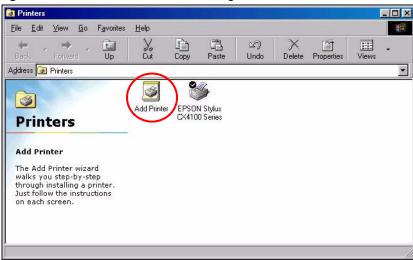


Figure 48 Windows Me: Start > Settings > Printers

3 The Add Printer Wizard screen then displays. Click Next.

| Add Printer Wizard | |
|--------------------|--|
| | This wizard will help you to install your printer quickly and easily. To begin installing your printer, click Next. |
| | < Back Next > Cancel |

Figure 49 Windows Me: Add Printer Wizard: Welcome

4 Select Local printer and click Next.

| dd Printer Wizard | How is this printer attached to your computer? If it is directly attached to your computer, click Local Printer. If it is attached to another computer, click Network Printer © Local printer © Network printer |
|-------------------|--|
| | < <u>B</u> ack Next > Cancel |

Figure 50 Windows Me: Add Printer Wizard: Local or Network Printer

- 5 Select the make of the printer that you want to connect to the NPS-520 in the Manufacturers list.
- 6 Select the printer model from the list of **Printers**.
- 7 If your printer is not displayed in the list of **Printers**, you can insert the printer driver installation CD/disk or download the driver file to your computer, click **Have Disk...** and install the new printer driver.
- 8 Click Next to continue.

| Add Prin | er Wizard Click the manufa installation disk, c documentation fo | lick Have Disl | c. If your prin | | er came with an consult your printer |
|--|---|----------------------------------|---|-------------------------|---|
| Manufac Diconix Digital Epson Fujitsu GCC Generic Gestetn | | Epson Epson Epson Epson | Stylus Pro E: Stylus Pro XI Stylus Pro XI | L ESC/P 2 L+ ESC/P 2 | ▲ ▼ Have Disk |
| | | | < <u>B</u> ack | Next > | Cancel |

Figure 51 Windows Me: Add Printer Wizard: Printer Driver

9 If the following screen displays, select **Keep existing driver** and click **Next** if you already have a printer driver installed on your computer and you do not want to change it. Otherwise, select **Replace existing driver** to replace it with the new driver you selected in the previous screen and click **Next**.

| Figure 52 | Windows Me: | Add Printer Wiza | ard: Use Existing | J Driver |
|-----------|-------------|------------------|-------------------|----------|
|-----------|-------------|------------------|-------------------|----------|

| Add Printer Wizard | |
|--------------------|--|
| | EPSON Stylus CX4100 Series A driver is already installed for this printer. Would you like to keep the existing driver or use the new one? Your programs may print differently if you use the new driver. |
| | < Back Next > Cancel |

10 Select the network port that is created and added to your computer automatically for your NPS-520. Click **Next**.

| Add Printer Wizard | |
|--------------------|--|
| | Click the port you want to use with this printer, and then click Next. <u>A</u> vailable ports: COM1: Communications Port FILE: Creates a file on disk LPT1: Printer Port <u>ZYXEL605-P1</u> PrintServer Network Port |
| | <u>C</u> onfigure Port < <u>B</u> ack Next > Cancel |

Figure 53 Windows Me: Add Printer Wizard: Select Port

?

If you have installed a print server in your computer before or the network port for the NPS-520 does not display in the **Available ports** list in the **Add Printer Wizard** screen (see Figure 53 on page 60), click **Start > Programs > ZyXEL NPS-520 Utility > Network Port Setup**.

The **Network Port Quick Setup** screen displays. Highlight the network port for the NPS-520 in the **Available Ports** box and click > or >> to add it to the **Chosen Ports** box. Click **OK**.

| Network Ports Quick Se | tup | | X |
|------------------------|--------|------------|---|
| Available Ports | | en Ports | |
| | > Zyxe | L605-P1 OK | |
| | >> | Cancel | |
| | < | | |
| | << | | |

Figure 54 Windows Me: Network Port Quick Setup

11 Type a name to identify the printer and select **Yes** to set this printer as the default printer. Click **Finish** to continue.

| | You can type a name for this printer, or you can use the name supplied below. When you are ready, click Finish to install the printer and add it to the Printers folder. |
|--------------------------------|---|
| The same or other and the same | Printer name: |
| | EPSON Stylus CX4100 S |
| | Do you want your Windows-based programs to use this printer as the default printer? |
| | C No |

Figure 55 Windows Me: Add Printer Wizard: Name Your Printer

12 Select **Yes** and then click **Finish** if you want to print a test page. A pop-up screen displays to ask if the test page printed correctly. Otherwise select **No** and then click **Finish** to complete printer setup and close the wizard screen.

Figure 56 Windows Me: Add Printer Wizard: Print Test Page

| Add Printer Wizard | |
|--------------------|---|
| | After your printer is installed, Windows can print a test page so you can confirm that the printer is set up properly. Would you like to print a test page? Yes (recommended) <u>No</u> |
| | < <u>B</u> ack Finish Cancel |

4.3 Adding a Printer in Macintosh

Follow the steps below to add a printer on your Mac computer. Procedure, screens and file location may vary depending on your Mac OS version.

1 Click the **Printer Setup Utility** icon located in the Macintosh Dock (a place holding a series of icons/shortcuts). Proceed to step 6 to continue. If the **Printer Setup Utility** icon is not in the Macintosh Dock, continue to the next step.

Figure 57 Macintosh Dock



2 Double-click your Macintosh hard drive on the desktop.

Figure 58 Macintosh HD Icon



3 Double-click the **Applications** folder.

Figure 59 Macintosh: HD

| 000 | MAC 10.3 | 0 |
|---------------------------------|-----------------------------|----------------|
| | | Q- local disks |
| Network MAC 10.3 MAC 10.4 | Library | System |
| Desktop Iomandy Users | | |
| Applicati Docume Movies | | |
| Movies Music Pictures | | |
| | 4 items, 15.32 GB available | |

4 Double-click the **Utilities** folder.

Figure 60 Macintosh: Applications

| 000 | | Applications | and the second se | 0 |
|---------------------------------|------------------|------------------------------|---|-----|
| | | | Q-local disks | |
| Network MAC 10.3 MAC 10.4 | iTunes | Mail | Preview | |
| Desktop | QuickTime Player | Safari | Sherlock | |
| Applicati Docume Movies | Stickies | System Preferences | TextEdit | |
| Music | Utilities | | | 4 |
| | | 25 items, 15.32 GB available | | 11. |

5 Double-click the **Printer Setup Utility** icon.

| 000 | | 📁 Utilities | | 0 |
|-----------|------------------|------------------------------|--|----------|
| ▲ ▶ 🔠 🔳 | | | Q-local disks | |
| Network | (*) | 0.0 | | ń |
| MAC 10.3 | 50 | | | - 11 |
| MAC 10.4 | Disk Utility | Grab | Installer | |
| Desktop | | | (F) | |
| lomandy | Java | Keychain Access | NetInfo Manager | |
| Applicati | | 178 | | |
| Docume | | 8 | (🖷) | |
| Movies | Network Utility | ODBC Administrator | Printer Setup Utility | |
| 🔥 Music | * | A | >_ | |
| Pictures | | | | <u> </u> |
| _ | StuffIt Expander | System Profiler | Terminal | Ŧ |
| | | 24 items, 15.32 GB available | the second s | 11. |

Figure 61 Macintosh: Utilities

6 Click the Add icon at the top of the Printer List screen.

Figure 62 Macintosh: Printer List

| | Printe | r List | C |
|------------------|----------------------|----------------|------|
| ê (e | 0 1 1 | 6 6 | |
| Make Default Add | Delete Utility Color | Sync Show Info | |
| In Menu Name | A Status | Kind | Host |
| | | | Host |
| In Menu Name | A Status | Kind | Host |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

- 7 Set up your printer in the Printer List (or Printer Browser) screen. Select IP Printing.
- 8 Set the printer type to LPD/LPR (or LPD).
- 9 In the Printer Address (or Address) field, type the IP address of your NPS-520.
- **10** Type "lpt1" (a parallel port) in the **Queue Name** (or **Queue**) field.
- **11** Select your printer model that is attached to the NPS-520. If the printer model is not listed, select **Generic**.
- **12** Click Add to save and close the configuration screen.

| | 0 | Printer List | |
|-------|------------------|--|---|
| Make | | IP Printing | |
| n Men | Printer Type: | LPD/LPR | • |
| | Printer Address: | 192.168.1.6 | |
| | | Complete and valid address. | |
| | Queue Name: | lpt1 | • |
| | | Leave blank for default queue | |
| | Printer Model: | HP | ; |
| | Model Name | | * |
| | | C, CUPS+Gimp-Print v4.2.5 C, CUPS+Gimp-Print v4.2.5 | |
| | | C, CUPS+Gimp-Print v4.2.5 | |
| | HP Desklet S60 | | |

Figure 63 Macintosh 10.3: Printer List

Figure 64 Macintosh 10.4: Printer Browser

| 00 | P | rinter Browser | C |
|-----------------|-----------------------------|-----------------------|------|
| 2 | 4 | (Q,- | |
| Default Browser | IP Printer | Se | arch |
| Protocol: | Line Printer [| Daemon – LPD | • |
| Address: | 192.168.1.6 | | |
| | Valid and comple | ete address. | |
| Queue: | lpt1 | | |
| | Leave blank for o | default queue. | |
| Name: | 192.168.1.6 | | |
| Location: | 4F | | |
| Print Using: | HP | | \$ |
| | Model | | A |
| | DesignJet 5000F | | |
| | designjet 5500p | | - |
| | Designjet 800PS | | |
| | HP 9085MFP HP 9085MFP eu | | |
| | | jet 2250 PS - Ver 1.6 | - |
| | | jet 2280 PS - v1.0 | ÷ |
| | | | |
| (?) | | (More Printers) | Add |

13 The printer information displays in the **Name** and **Kind** fields.

| | 🖯 😁 🦳 Printer List | | | |
|--------------|--------------------|------------------------|----------------|------|
| <u>e</u> | 4 | N 45 V | 0 | |
| Make Default | Add | Delete Utility ColorSy | mc Show Info | |
| In Menu Name | | Status | Kind | Host |
| | ot1 on 19 | 2.168.1.6 | HP LaserJet 13 | 00 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Figure 65 Macintosh: Printer List Done

4.4 Adding a Printer in Linux/UNIX

Follow the steps below to set up a printer on your Linux/Unix computer. This section uses the Fedora Core 2 screenshots. Procedure, screens and file location may vary depending on your Linux distribution and release version.

1 Click System > Administration > Printing.

Figure 66 Fedora Core 2: System > Administration > Printing



2 Click the New icon at the top of the Printer Configuration screen.

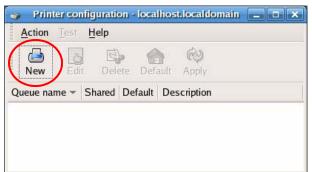


Figure 67 Fedora Core 2: Printer Configuration

3 Click **Forward** to continue.

| Add a n | ew print queue |
|---------|---|
| | On the following screens, you will be asked to provide basic information for adding a new print queue. You will be able to edit the more advanced options afterwards. |
| | Nothing will be done to your settings until you hit "Finish" on the last screen. |

Figure 68 Fedora Core 2: Add a new print queue

4 Enter descriptive names for the new printer queue and printer. Click Forward.

Figure 69 Fedora Core 2: Add a new print queue: Queue name

| 3 | Add a new print queue | |
|---------------------------|--|---------|
| Queu | e name | |
| -53333333334 | enter a name for this queue. Choose a short hat begins with a letter and contains no spaces. printer | |
| About | | |
| 101010000000 | ike, you can enter a description of the printer you identify it more easily. | |
| Short | lescription: HP PSC 1600 | |
| | | |
| <mark>⊠</mark> <u>H</u> e | p X Cancel 4 Back | Forward |

5 Set the queue type to **Networked UNIX (LPD)** and enter your NPS-520's IP address and "lpt1" in the **Server** and **Queue** fields respectively. Click **Forward**.

| Select a queue type: | Networked UNIX (L | PD) ‡ | |
|----------------------|-------------------|----------|--|
| Server: | Que | ue: | |
| 192.168.1.6 | [pt] | í. | |
| .168.1.6 | [lpt] | <u>.</u> | |

Figure 70 Fedora Core 2: Add a new print queue: Queue Type

6 Select your printer model that is attached to the NPS-520. If the printer model is not listed, select Generic. Click Forward.

Figure 71 Fedora Core 2: Add a new print queue: Printer model

| rinter mo | del | | | | |
|--|------------|------------|---------|--------------|------|
| Select the printer r on how the remote to select the gener | queue is c | onfigured, | you may | <u>N</u> | otes |
| HP | | | | | \$ |
| PSC 1600 | | | | | Ĥ |
| PSC 2110 | | | | | |
| PSC 2150 | | | | | • |
| | | | | | |

7 This read-only screen shows the current settings. Check whether what you have configured is correct and click **Finish**.



Figure 72 Fedora Core 2: Add a new print queue: Finish

8 Click Yes to print a test page and save your changes.

Figure 73 Fedora Core 2: Print a test page

| 9 | Question | × |
|---|---|----------------|
| ? | Would you like to print a Answering 'yes' will app and print a test page to | ly all changes |
| | × <u>N</u> o | ✓ Yes |

9 If the test page is printed successfully, click **Yes**. Otherwise, click **No** and go back to the the **Printer Configuration** screen to set up the printer again.

Figure 74 Fedora Core 2: Print a test page: Confirmation



5

Troubleshooting

This chapter offers some suggestions to solve problems you might encounter.



The NPS-520 does not turn on. None of the LEDs turn on.

- 1 Make sure you are using the power adaptor or cord included with the NPS-520.
- **2** Make sure the power adaptor or cord is connected to the NPS-520 and plugged in to an appropriate power source. Make sure the power source is turned on.
- **3** Disconnect and re-connect the power adaptor or cord to the NPS-520.
- **4** If the problem continues, contact the vendor.



- **5** Check the hardware connections. See the Quick Start Guide or Section 1.6 on page 19.
- 6 Inspect your cables for damage. Contact the vendor to replace any damaged cables.
- 7 Disconnect and re-connect the power adaptor to the NPS-520.
- 8 If the problem continues, contact the vendor.

?

I forgot the IP address for the NPS-520.

- 1 The default IP address is **192.168.1.6**.
- **2** If you set the NPS-520 to get the IP address from a DHCP server, look up the IP address assigned to the NPS-520 in the DHCP server.
- **3** If you manually changed the IP address and have forgotten it, open the ZyXEL utility from a computer connected to the NPS-520. Check the IP address in the **TCP/IP Setting** screen.
- **4** If this does not work, you have to reset the device to its factory defaults. See Section 1.5 on page 18.

I forgot the password.

- 1 The default password is 1234.
- 2 If this does not work, you have to reset the device to its factory defaults. See Section 1.5 on page 18.

?

I cannot see or access the Login screen in the web configurator.

- **1** Make sure you are using the correct IP address.
 - The default IP address is 192.168.1.6.
 - If you changed the IP address (Section 3.6 on page 40), use the new IP address.
 - If you changed the IP address and have forgotten it, see the troubleshooting suggestions for I forgot the IP address for the NPS-520.
- 2 Check the hardware connections, and make sure the LEDs are behaving as expected. See the Quick Start Guide and Section 1.6 on page 19.
- **3** Make sure your Internet browser does not block pop-up windows and has JavaScripts and Java enabled. See Appendix C on page 95.
- **4** Make sure your computer's Ethernet adapter is installed and functioning properly.
- **5** Make sure your computer is in the same subnet as the NPS-520. (If you know that there are routers between your computer and the NPS-520, skip this step.)
 - If there is a DHCP server on your network, make sure your computer is using a dynamic IP address. See Appendix D on page 647.
- 6 Reset the device to its factory defaults, and try to access the NPS-520 with the default IP address. See Section 1.5 on page 18.
- 7 If the problem continues, contact the network administrator or vendor, or try one of the advanced suggestions.

?

I can see the Login screen, but I cannot log in to the NPS-520.

- 1 Make sure you have entered the password correctly. The default password is **1234**. These fields are case-sensitive, so make sure [Caps Lock] is not on.
- **2** Turn the NPS-520 off and on or disconnect and re-connect the power adaptor to the NPS-520.
- **3** If this does not work, you have to reset the device to its factory defaults. See Section 2.3 on page 57.

I cannot print on the printer which is connected to the NPS-520.

- **1** Make sure your computer is in the same network to which the NPS-520 is connected.
- **2** Make sure the NPS-520 and the printer are on and working.
- **3** In the ZyXEL utility **Status** screen, check if the printer is available and your computer is associated with the printer.
- 4 If a computer is always occupying the connection to the printer without enabling Auto Release and/or Auto Connect, terminate that computer's connection to the printer by clicking the Force Release button in the utility System Setting screen.
- **5** If your computer or the NPS-520 is behind a firewall, make sure servoap.exe and mfpagent.exe are allowed to go through the firewall.



I cannot scan or fax on a MFP which is connected to the NPS-520.

- 1 Make sure your computer operating system is Windows 2000 SP4 or above.
- 2 Make sure there is no computer currently connected to the printer.
- **3** Make sure your printer is in the list of compatible MFP printers (see Table 17 on page 73).
- 4 Connect the MFP to your computer directly to make sure the MFP is working properly.
- **5** If your computer or the NPS-520 is behind a firewall, make sure servoap.exe and mfpagent.exe are allowed to go through the firewall.

A

Product Specifications

The following tables summarize the NPS-520's hardware and firmware features.

Table 15 Hardware Specifications

| I | |
|------------------------|---|
| Dimensions (W x D x H) | 76.5(W) x 57(D) x 25(H) mm |
| Device Weight | 62 g |
| Power Specification | 7V DC/0.5A |
| Ethernet Port | Auto-negotiating: 10 Mbps or 100 Mbps in either half-duplex or full-duplex mode. Auto-crossover: Use either crossover or straight-through Ethernet cables. |
| USB Port | USB 2.0 Type A Print Port |
| Operation Temperature | 0° C ~ 50° C |
| Operation Humidity | 20% ~ 95% Non-condensing |

 Table 16
 Firmware Specifications

| FEATURE | DESCRIPTION |
|-------------------------------|---|
| Default IP Address | 192.168.1.6 |
| Default Password | 1234 |
| Printing Protocol Supported | IPP, LPR, RAW |
| Configuration Tool | ZyXEL utility, Web configurator |
| Operating System Supported | Windows 98 Second Edition (SE), Windows Me, Windows 2000, Windows 2003, Windows XP, Unix/Linux (with LPR/LPD protocol support), Mac OS 9.x or later |

NPS-520 Compatible USB Printers

The following is a list of USB printer models compatible with the NPS-520 at the time of writing.

| | | | | FUNCTIONS | | | | |
|---------|---------|-------------|-------|-----------|-----|----------------|--------|--|
| BRAND | MODEL | ТҮРЕ | PRINT | SCAN | FAX | CARD READER | REMARK | |
| BenQ | CM3000 | MFP | 0 | 0 | | | | |
| Brother | HL-2070 | Color Laser | 0 | | | | | |

 Table 17
 NPS-520 Compatible USB Printers

| | | | FUNCTIO | ONS | | | |
|---------|-----------|---------------------------|---------|------|-----|----------------|--------|
| BRAND | MODEL | TYPE | PRINT | SCAN | FAX | CARD READER | REMARK |
| Brother | HL-5240 | Color Laser | 0 | | | | |
| Brother | MFC-210C | MFP | 0 | 0 | 0 | 0 | |
| Brother | MFC-215C | MFP | 0 | 0 | 0 | 0 | |
| Brother | MFC-2820 | MFP | 0 | | 0 | | |
| Brother | MFC-420CN | MFP | 0 | 0 | 0 | 0 | |
| Brother | MFC-425CN | MFP | 0 | 0 | 0 | 0 | |
| Brother | MFC-3240C | MFP | 0 | 0 | 0 | | |
| Brother | MFC-7420 | MFP | 0 | 0 | 0 | | |
| Brother | MFC-7820N | MFP | 0 | 0 | 0 | | |
| Brother | MFC-8840D | MFP | 0 | 0 | 0 | | |
| CANON | S200SPx | Color Ink | 0 | | | | |
| CANON | C350 | Color Ink Jet | 0 | | | | |
| CANON | i255 | Color Ink Jet | 0 | | | | |
| CANON | i320 | Color Ink Jet | 0 | | | | |
| CANON | i355 | Color Ink Jet | 0 | | | | |
| CANON | i450 | Color Ink Jet | 0 | | | | |
| CANON | i455 | Color Ink Jet | 0 | | | | |
| CANON | i550 | Color Ink Jet | 0 | | | | |
| CANON | i850 | Color Ink Jet | 0 | | | | |
| CANON | i6100 | Color Ink Jet | 0 | | | | |
| CANON | i6500 | Color Ink Jet | 0 | | | | |
| CANON | i9100 | Color Ink Jet | 0 | | | | |
| CANON | i9950D | Color Ink Jet | 0 | | | | |
| CANON | i475D | Color Ink Jet | 0 | | | | |
| CANON | i560 | Color Ink Jet | 0 | | | | |
| CANON | i865 | Color Ink Jet | 0 | | | | |
| CANON | i905D | Color Ink Jet | 0 | | | | |
| CANON | iR 2010 | B&W Copying Machine | 0 | | | | |
| CANON | iP90 | Color Ink Jet | 0 | | | | |
| CANON | iP1000 | Color Ink Jet | 0 | | | | |

 Table 17
 NPS-520 Compatible USB Printers

| | | | FUNCTIO | FUNCTIONS | | | |
|-------|----------------|--------------------|---------|-----------|-----|----------------|--------|
| BRAND | MODEL | TYPE | PRINT | SCAN | FAX | CARD READER | REMARK |
| CANON | iP1500 | Color Ink Jet | 0 | | | | |
| CANON | iP2000 | Color Ink Jet | 0 | | | | |
| CANON | iP3000 | Color Ink Jet | 0 | | | | |
| CANON | iP4000 | Color Ink Jet | 0 | | | | |
| CANON | iP4200 | Color Ink Jet | 0 | | | | |
| CANON | iP5000 | Color Ink Jet | 0 | | | | |
| CANON | iP6000D | Color Ink Jet | 0 | | | | |
| CANON | iP8500D | Color Ink Jet | 0 | | | | |
| CANON | iX4000 | Color Ink Jet | 0 | | | | |
| CANON | iX5000 | Color Ink Jet | 0 | | | | |
| CANON | MPC 190 | MFP | 0 | 0 | | | |
| CANON | PIXMA MP110 | MFP | 0 | 0 | 0 | | |
| CANON | PIXMA MP130 | MFP | 0 | 0 | 0 | | |
| CANON | PIXMA MP150 | MFP | 0 | 0 | | | |
| CANON | PIXMA MP170 | MFP | 0 | 0 | | 0 | |
| CANON | PIXMA MP450 | MFP | 0 | 0 | | 0 | |
| CANON | PIXMA MP530 | MFP | 0 | | | | |
| CANON | PIXMA MP700 | MFP | 0 | 0 | | 0 | |
| CANON | PIXMA MP730 | MFP | 0 | 0 | | 0 | |
| CANON | PIXMA MP780 | MFP | 0 | 0 | | 0 | |
| Dell | 944 | MFP | 0 | 0 | | 0 | |
| EPSON | Aculaser C1900 | Color Laser Jet | 0 | | | | |
| EPSON | Aculaser C4000 | Color Laser Jet | 0 | | | | |
| EPSON | Aculaser C4100 | Color Laser Jet | 0 | | | | |
| EPSON | Aculaser C8600 | Color Laser Jet | 0 | | | | |
| EPSON | DLQ-3500C | Impact Printer | 0 | | | | |
| EPSON | EPL-6100 | B&W Laser Jet | 0 | | | | |
| EPSON | EPL-6200 | B&W Laser Jet | 0 | | | | |

 Table 17
 NPS-520 Compatible USB Printers

| | | | FUNCTIO | CTIONS | | | |
|-------|-----------------------|--------------------|---------|--------|-----|----------------|--------|
| BRAND | MODEL | TYPE | PRINT | SCAN | FAX | CARD READER | REMARK |
| EPSON | EPL-N2500 | B&W Laser Jet | 0 | | | | |
| EPSON | EPL-N3000 | B&W Laser Jet | 0 | | | | |
| EPSON | PictureMate* | Color Ink Jet | 0 | | | | |
| EPSON | Stylus C43UX | Color Ink Jet | 0 | | | | |
| EPSON | Stylus C63 | Color Ink Jet | 0 | | | | |
| EPSON | Stylus C67 | Color Ink Jet | 0 | | | | |
| EPSON | Stylus C83 | Color Ink Jet | 0 | | | | |
| EPSON | Stylus C88 | Color Ink Jet | 0 | | | | |
| EPSON | Stylus COLOR 900 | Color Ink Jet | 0 | | | | |
| EPSON | Stylus COLOR 1160 | Color Ink Jet | 0 | | | | |
| EPSON | Stylus CX1500 | MFP | 0 | 0 | | | |
| EPSON | Stylus CX3700 | MFP | 0 | 0 | | | |
| EPSON | Stylus CX4100 | MFP | 0 | 0 | | | |
| EPSON | Stylus CX4700 | MFP | 0 | 0 | | 0 | |
| EPSON | PHOTO 4990 Scanner | MFP | | 0 | | | |
| EPSON | Stylus R310 | MFP | 0 | | | | |
| EPSON | Stylus R340 | MFP | 0 | | | 0 | |
| EPSON | Stylus R350 | MFP | 0 | | | 0 | |
| EPSON | Stylus RX430 | MFP | 0 | 0 | | 0 | |
| EPSON | Stylus RX510 | MFP | 0 | 0 | | 0 | |
| EPSON | Stylus RX520 | MFP | 0 | 0 | | 0 | |
| EPSON | Stylus RX530 | MFP | 0 | 0 | | 0 | |
| EPSON | Stylus RX630 | MFP | 0 | 0 | | 0 | |
| EPSON | Stylus RX650 | MFP | 0 | 0 | | 0 | |
| HP | Business 1100d | Color Ink Jet | 0 | | | | |
| HP | Business 1200d | Color Ink Jet | 0 | | | | |
| HP | CLJ 1500L | Color laser Jet | 0 | | | | |
| HP | CLJ 3500 | Color laser Jet | 0 | | | | |

 Table 17
 NPS-520 Compatible USB Printers

| | | | FUNCTIO | CTIONS | | | |
|-------|---------------------------|--------------------|---------|--------|-----|----------------|--------|
| BRAND | MODEL | TYPE | PRINT | SCAN | FAX | CARD READER | REMARK |
| HP | CLJ 3500N | Color laser Jet | 0 | | | | |
| HP | CLJ 3700 | Color laser Jet | 0 | | | | |
| HP | CLJ 4600 | Color laser Jet | 0 | | | | |
| HP | Deskjet 450 | Color Ink Jet | 0 | | | | |
| HP | Deskjet 810C | Color Ink Jet | 0 | | | | |
| HP | Deskjet 880C | Color Ink Jet | 0 | | | | |
| HP | Deskjet 882C | Color Ink Jet | 0 | | | | |
| HP | Deskjet 920C | Color Ink Jet | 0 | | | | |
| HP | Deskjet 960 | Color Ink Jet | 0 | | | | |
| HP | Deskjet 980 | Color Ink Jet | 0 | | | | |
| HP | Deskjet 990 | Color Ink Jet | 0 | | | | |
| HP | Deskjet 1120C | Color Ink Jet | 0 | | | | |
| HP | Deskjet 1180C | Color Ink Jet | 0 | | | | |
| HP | Deskjet 3325 | Color Ink Jet | 0 | | | | |
| HP | Deskjet 3535 | Color Ink Jet | 0 | | | | |
| HP | Deskjet 3550 | Color Ink Jet | 0 | | | | |
| HP | Deskjet 3650 | Color Ink Jet | 0 | | | | |
| HP | Deskjet 3820 | Color Ink Jet | 0 | | | | |
| HP | Deskjet 3920 ^A | Color Ink Jet | 0 | | | | |
| HP | Deskjet 5160 | Color Ink Jet | 0 | | | | |
| HP | Deskjet 5440 | Color Ink Jet | 0 | | | | |
| HP | Deskjet 5550 | Color Ink Jet | 0 | | | | |
| HP | Deskjet 5652 | Color Ink Jet | 0 | | | | |
| HP | Deskjet 5740 | Color Ink Jet | 0 | | | | |
| HP | Deskjet 6122 | Color Ink Jet | 0 | | | | |
| HP | Deskjet 6540 | Color Ink Jet | 0 | | | | |
| HP | Deskjet 6840 | Color Ink Jet | 0 | | | | |
| HP | Deskjet 9300 | Color Ink Jet | 0 | | | | |
| HP | Deskjet 9650 | Color Ink Jet | 0 | | | | |
| HP | Deskjet 995C | Color Ink Jet | 0 | | | | |

 Table 17
 NPS-520 Compatible USB Printers

| | | | FUNCTIO | ONS | | | |
|-------|-------------------------|-----------------------|---------|------|-----|----------------|--------|
| BRAND | MODEL | TYPE | PRINT | SCAN | FAX | CARD READER | REMARK |
| HP | Laser Jet 1020 (GDI) | MFP | 0 | | | | |
| HP | Laser Jet 1022 (GDI) | MFP | 0 | | | | |
| HP | Laser Jet 3015 | MFP | 0 | 0 | 0 | | |
| HP | Laser Jet 3020 | MFP | 0 | 0 | 0 | | |
| HP | Laser Jet 3030 | MFP | 0 | 0 | 0 | | |
| HP | Laser Jet 3050 | MFP | 0 | 0 | | | |
| HP | Laser Jet 3052 | MFP | 0 | 0 | | | |
| HP | Laser Jet 3055 | MFP | 0 | 0 | | | |
| HP | Laser Jet 3380 | MFP | 0 | 0 | 0 | | |
| HP | Laser Jet 3390 | MFP | 0 | 0 | | | |
| HP | Laser Jet 3392 | MFP | 0 | 0 | | | |
| HP | Laser Jet 4650 | Color Laser Jet | 0 | | | | |
| HP | Laser Jet 1010 | B&W LaserJet | 0 | | | | |
| HP | Laser Jet 1012 | B&W LaserJet | 0 | | | | |
| HP | Laser Jet 1015 | B&W LaserJet | 0 | | | | |
| HP | Laser Jet 1200 | B&W LaserJet | 0 | | | | |
| HP | Laser Jet 1220 | B&W LaserJet | 0 | | | | |
| HP | Laser Jet 1300 | B&W LaserJet | 0 | | | | |
| HP | Laser Jet 1320 | B&W LaserJet | 0 | | | | |
| HP | Laser Jet 2300 | B&W LaserJet | 0 | | | | |
| HP | Laser Jet 2300L | B&W LaserJet | 0 | | | | |
| HP | Laser Jet 2420 | B&W LaserJet | 0 | | | | |
| HP | Laser Jet 4350 | B&W LaserJet | 0 | | | | |
| HP | Photosmart 145 | Mini Photo Printer | 0 | | | | |

 Table 17
 NPS-520 Compatible USB Printers

| | | | FUNCTIO | FUNCTIONS | | | |
|-------|--------------------|-----------------------|---------|-----------|-----|----------------|--------|
| BRAND | MODEL | TYPE | PRINT | SCAN | FAX | CARD READER | REMARK |
| HP | Photosmart 245 | Mini Photo Printer | 0 | | | | |
| HP | Photosmart 325 | Mini Photo Printer | 0 | | | | |
| HP | Photosmart 375 | Mini Photo Printer | 0 | | | | |
| HP | Photosmart 475 | Mini Photo Printer | 0 | | | | |
| HP | Photosmart 7260 | Photo Printer | 0 | | | | |
| HP | Photosmart 7450 | Photo Printer | 0 | | | | |
| HP | Photosmart 7550 | Photo Printer | 0 | | | | |
| HP | Photosmart 7660 | Photo Printer | 0 | | | | |
| HP | Photosmart 7760 | Photo Printer | 0 | | | | |
| HP | Photosmart 7830 | Photo Printer | 0 | | | | |
| HP | Photosmart 7960 | Photo Printer | 0 | | | | |
| HP | Photosmart 8030 | Photo Printer | 0 | | | | |
| HP | Photosmart 8230 | Photo Printer | 0 | | | | |
| HP | Photosmart 8250 | Photo Printer | 0 | | | | |
| HP | Photosmart 8450 | Photo Printer | 0 | | | | |
| HP | Photosmart 8750 | Photo Printer | 0 | | | | |
| HP | PhotoSmart 2575 | MFP | 0 | 0 | | 0 | |
| HP | PhotoSmart 2610 | MFP | 0 | 0 | | 0 | |
| HP | PhotoSmart 2710 | MFP | 0 | 0 | | 0 | |
| HP | PhotoSmart 3110 | MFP | 0 | 0 | | 0 | |
| HP | PhotoSmart 3310 | MFP | 0 | 0 | | 0 | |
| HP | PhotoSmart 475 | MFP | 0 | | | 0 | |
| HP | PhotoSmart 7450 | MFP | 0 | | | 0 | |
| HP | PhotoSmart 7830 | MFP | 0 | | | 0 | |
| HP | PhotoSmart 8030 | MFP | 0 | | | 0 | |
| HP | PhotoSmart 8230 | MFP | 0 | | | 0 | |

 Table 17
 NPS-520 Compatible USB Printers

| | | | FUNCTIO | FUNCTIONS | | | |
|-------------------|--------------------|------|---------|-----------|-----|----------------|--------|
| BRAND | MODEL | TYPE | PRINT | SCAN | FAX | CARD READER | REMARK |
| HP | PhotoSmart 8250 | MFP | 0 | | | 0 | |
| HP | PhotoSmart 8450 | MFP | 0 | | | 0 | |
| HP | PhotoSmart 8750 | MFP | 0 | | | 0 | |
| HP | PSC 750 | MFP | 0 | 0 | | | |
| HP | PSC 1210 | MFP | 0 | 0 | | | |
| HP | PSC 1350 | MFP | 0 | 0 | | | |
| HP | PSC 1410 | MFP | 0 | 0 | | | |
| HP | PSC 1510 | MFP | 0 | 0 | | | |
| HP | PSC 1610 | MFP | 0 | 0 | | 0 | |
| HP | PSC 2210 | MFP | 0 | 0 | | 0 | |
| HP | PSC 2310 | MFP | 0 | 0 | | 0 | |
| HP | PSC 2355 | MFP | 0 | 0 | | 0 | |
| HP | PSC 2410 | MFP | 0 | 0 | | 0 | |
| HP | PSC 2510 | MFP | 0 | 0 | | 0 | |
| HP | Office Jet 4255 | MFP | 0 | 0 | | | |
| HP | Office Jet 4355 | MFP | 0 | | | | |
| HP | Office Jet 5510 | MFP | 0 | 0 | | | |
| HP | Office Jet 5610 | MFP | 0 | 0 | | | |
| HP | Office Jet 6110 | MFP | 0 | 0 | | | |
| HP | Office Jet 6210 | MFP | 0 | 0 | | | |
| HP | Office Jet 6310 | MFP | 0 | | | | |
| HP | Office Jet 7210 | MFP | 0 | 0 | | 0 | |
| HP | Office Jet 7410 | MFP | 0 | 0 | | 0 | |
| HP | Office Jet 9100 | MFP | 0 | 0 | | 0 | |
| Konica Minolta | 1380MF | MFP | 0 | | | | |
| Konica Minolta | 2480 | MFP | 0 | 0 | | | |
| LEXMARK | P4350 | MFP | 0 | 0 | | 0 | |

 Table 17
 NPS-520 Compatible USB Printers

| | | | | ONS | | | |
|----------------------|-----------|------------------|-------|------|-----|----------------|--------|
| BRAND | MODEL | TYPE | PRINT | SCAN | FAX | CARD READER | REMARK |
| LEXMARK | P6210 | MFP | 0 | 0 | | 0 | |
| LEXMARK | P6250 | MFP | 0 | | | | |
| LEXMARK | X3330 | MFP | 0 | 0 | | | |
| LEXMARK | X3350 | MFP | 0 | 0 | | | |
| LEXMARK | X3470 | MFP | 0 | | | | |
| LEXMARK | X4270 | MFP | 0 | 0 | | | |
| LEXMARK | X5150 | MFP | 0 | 0 | | | |
| LEXMARK | X6150 | MFP | 0 | 0 | 0 | | |
| LEXMARK | X6170 | MFP | 0 | 0 | 0 | | |
| LEXMARK | X7350 | MFP | 0 | | | | |
| LEXMARK ^B | Z603 | Color Ink Jet | 0 | | | | ** |
| LEXMARK | Z615 | Color Ink Jet | 0 | | | | ** |
| LEXMARK | Z705 | Color Ink Jet | 0 | | | | ** |
| LEXMARK | Z810 | Color Ink Jet | 0 | | | | ** |
| LEXMARK | Z816 | Color Ink Jet | 0 | | | | ** |
| LEXMARK | Z818 | Color Ink Jet | 0 | | | | ** |
| LEXMARK | E120 | B&W Laser Jet | 0 | | | | |
| LEXMARK | E230 | B&W Laser Jet | 0 | | | | |
| LEXMARK | C510 | B&W Laser Jet | 0 | | | | |
| SAMSUNG | ML-1520LP | B&W Laser Jet | 0 | | | | |
| SAMSUNG | ML-1740 | B&W Laser Jet | 0 | | | | |
| SAMSUNG | ML-2010 | B&W Laser Jet | 0 | | | | |
| SAMSUNG | SF-565P | MFP | 0 | 0 | 0 | | |
| SAMSUNG | SCX-4100 | MFP | 0 | 0 | | | |
| SAMSUNG | SCX-4720F | MFP | 0 | 0 | 0 | | |

Table 17 NPS-520 Compatible USB Printers

Table Key: An O in a function's column shows that the printer has the specified feature. An --- in a function's column shows that the specified feature is available on the printer but hasn't been tested yet on the NPS-520. The information in this table was correct at the time of writing, although it may be subject to change.

- A. You need to disable bi-directional support on this printer.
- B. For some LEXMARK printers (marked with **), you need to disable bi-directional support and select WinPrint processor and RAW printing protocol.

B

Setting up Your Computer's IP Address

All computers must have a 10M or 100M Ethernet adapter card and TCP/IP installed.

Windows 95/98/Me/NT/2000/XP, Macintosh OS 7 and later operating systems and all versions of UNIX/LINUX include the software components you need to install and use TCP/ IP on your computer. Windows 3.1 requires the purchase of a third-party TCP/IP application package.

TCP/IP should already be installed on computers using Windows NT/2000/XP, Macintosh OS 7 and later operating systems.

After the appropriate TCP/IP components are installed, configure the TCP/IP settings in order to "communicate" with your network.

Windows 95/98/Me

Click Start, Settings, Control Panel and double-click the Network icon to open the Network window

| Network |
|---|
| Configuration Identification Access Control |
| |
| The following network components are installed: |
| LPR for TCP/IP Printing |
| B 3Com EtherLink 10/100 PCI TX NIC (3C905B-TX) |
| Bial-Up Adapter |
| USB Fast Ethernet Adapter |
| |
| |
| Add Remove Properties |
| |
| Primary Network Logon: |
| Client for Microsoft Networks |
| Eile and Print Sharing |
| Description |
| TCP/IP is the protocol you use to connect to the Internet and wide-area networks |
| wide-area networks. |
| |
| |
| OK Cancel |

Figure 75 WIndows 95/98/Me: Network: Configuration

Installing Components

The **Network** window **Configuration** tab displays a list of installed components. You need a network adapter, the TCP/IP protocol and Client for Microsoft Networks.

If you need the adapter:

- 1 In the Network window, click Add.
- 2 Select Adapter and then click Add.
- **3** Select the manufacturer and model of your network adapter and then click **OK**.

If you need TCP/IP:

- 1 In the Network window, click Add.
- 2 Select **Protocol** and then click **Add**.
- **3** Select **Microsoft** from the list of **manufacturers**.
- 4 Select TCP/IP from the list of network protocols and then click OK.

If you need Client for Microsoft Networks:

- 1 Click Add.
- **2** Select **Client** and then click **Add**.
- **3** Select **Microsoft** from the list of manufacturers.
- 4 Select Client for Microsoft Networks from the list of network clients and then click OK.
- **5** Restart your computer so the changes you made take effect.

Configuring

- 1 In the **Network** window **Configuration** tab, select your network adapter's TCP/IP entry and click **Properties**
- 2 Click the **IP** Address tab.
 - If your IP address is dynamic, select Obtain an IP address automatically.
 - If you have a static IP address, select **Specify an IP address** and type your information into the **IP Address** and **Subnet Mask** fields.

Figure 76 Windows 95/98/Me: TCP/IP Properties: IP Address

| | 1 | | | |
|--|--------------|---------------------------------|------------|------------|
| Bindings | | Advanced NetBIC | | |
| NS Configuration | Gateway | Gateway WINS Configuration IP A | | IP Addres: |
| An IP address can If your network do your network admi the space below. | es not autor | natically assign | n IP addre | esses, ask |
| Obtain an IP | address au | tomatically | | |
| C Specify an IF | address: | | | |
| IP Address: | | | | |
| S <u>u</u> bnet Mas | k: | | | |
| Detect conne | ection to ne | twork media | | |
| | | | | |
| | | | 140.00 | |

3 Click the **DNS** Configuration tab.

- If you do not know your DNS information, select **Disable DNS**.
- If you know your DNS information, select **Enable DNS** and type the information in the fields below (you may not need to fill them all in).

| TCP/IP Properties |
|--|
| Bindings Advanced NetBIOS DNS Configuration Gateway WINS Configuration IP Address |
| Disable DNS Enable DNS |
| Host Domain: Domain: DNS Server Search Order Add |
| <u>H</u> emove |
| Domain Suffix Search Order Add Remove |
| |

Figure 77 Windows 95/98/Me: TCP/IP Properties: DNS Configuration

- 4 Click the Gateway tab.
 - If you do not know your gateway's IP address, remove previously installed gateways.
 - If you have a gateway IP address, type it in the New gateway field and click Add.
- 5 Click OK to save and close the TCP/IP Properties window.
- 6 Click OK to close the Network window. Insert the Windows CD if prompted.
- 7 Restart your computer when prompted.

Verifying Settings

- 1 Click **Start** and then **Run**.
- 2 In the **Run** window, type "winipcfg" and then click **OK** to open the **IP Configuration** window.
- **3** Select your network adapter. You should see your computer's IP address, subnet mask and default gateway.

Windows 2000/NT/XP

1 For Windows XP, click start, Control Panel. In Windows 2000/NT, click Start, Settings, Control Panel.

Figure 78 Windows XP: Start Menu



2 For Windows XP, click **Network Connections**. For Windows 2000/NT, click **Network and Dial-up Connections**.

Figure 79 Windows XP: Control Panel



3 Right-click Local Area Connection and then click Properties.



Figure 80 Windows XP: Control Panel: Network Connections: Properties

4 Select **Internet Protocol (TCP/IP)** (under the **General** tab in Win XP) and click **Properties**.

Figure 81 Windows XP: Local Area Connection Properties

| Local | Area Connection Properties |
|---------------|--|
| ieneral | Authentication Advanced |
| Connec | t using: |
| B (B | ccton EN1207D-TX PCI Fast Ethernet Adapter |
| This cor | Configure |
| | File and Printer Sharing for Microsoft Networks QoS Packet Scheduler Internet Protocol (TCP/IP) |
| Descr | |
| Trans wide | mission Control Protocol/Internet Protocol. The default area network protocol that provides communication s diverse interconnected networks. |
| Shou | v icon in notification area when connected |
| | OK Cancel |

- **5** The **Internet Protocol TCP/IP Properties** window opens (the **General** tab in Windows XP).
 - If you have a dynamic IP address click Obtain an IP address automatically.
 - If you have a static IP address click Use the following IP Address and fill in the IP address, Subnet mask, and Default gateway fields. Click Advanced.

| ettings DNS \ | WINS Options | |
|------------------------|--------------|---------------|
| ^D addresses | | |
| IP address | | Subnet mask |
| DHCP Enabled | | |
| | | |
| | Add | Edit Remove |
| | | |
| efault gateways: - | | |
| Gateway | | Advantation . |
| adicinay | | Metric |
| adiendy | | Mettic |
| adoway | | |
| Claiterray | Add | Edit Remove |
| | | |
| Z Automatic metric | | |
| | | |
| Z Automatic metric | | |

Figure 82 Windows XP: Advanced TCP/IP Settings

6 If you do not know your gateway's IP address, remove any previously installed gateways in the IP Settings tab and click OK.

Do one or more of the following if you want to configure additional IP addresses:

- In the IP Settings tab, in IP addresses, click Add.
- In TCP/IP Address, type an IP address in IP address and a subnet mask in Subnet mask, and then click Add.
- Repeat the above two steps for each IP address you want to add.
- Configure additional default gateways in the **IP Settings** tab by clicking **Add** in **Default gateways**.
- In **TCP/IP Gateway Address**, type the IP address of the default gateway in **Gateway**. To manually configure a default metric (the number of transmission hops), clear the **Automatic metric** check box and type a metric in **Metric**.
- Click Add.
- Repeat the previous three steps for each default gateway you want to add.
- Click **OK** when finished.
- 7 In the Internet Protocol TCP/IP Properties window (the General tab in Windows XP):
 - Click **Obtain DNS server address automatically** if you do not know your DNS server IP address(es).
 - If you know your DNS server IP address(es), click Use the following DNS server addresses, and type them in the Preferred DNS server and Alternate DNS server fields.

If you have previously configured DNS servers, click **Advanced** and then the **DNS** tab to order them.

Figure 83 Windows XP: Internet Protocol (TCP/IP) Properties

| eneral Alternate Configuration | n |
|---|---|
| | ed automatically if your network supports need to ask your network administrator for |
| Obtain an IP address auto | omatically |
| OUse the following IP addre | 888: |
| IP address: | |
| Subnet mask: | · · · · |
| Default gateway: | |
| Obtain DNS server addres | ss automatically |
| OUse the following DNS se | rver addresses: |
| Preferred DNS server: | |
| Alternate DNS server: | |
| | Advanced |
| | OK Cance |

- 8 Click OK to close the Internet Protocol (TCP/IP) Properties window.
- 9 Click OK to close the Local Area Connection Properties window.
- **10** Restart your computer (if prompted).

Verifying Settings

- 1 Click Start, All Programs, Accessories and then Command Prompt.
- 2 In the **Command Prompt** window, type "ipconfig" and then press [ENTER]. You can also open **Network Connections**, right-click a network connection, click **Status** and then click the **Support** tab.

Macintosh OS 8/9

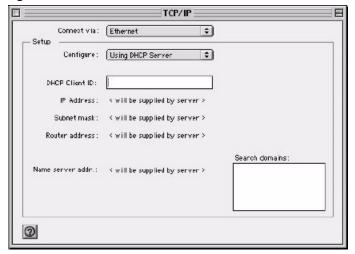
1 Click the Apple menu, Control Panel and double-click TCP/IP to open the TCP/IP Control Panel.

| gule 64 Macintosin 03 0/3 | • • |
|---------------------------|-------------------------|
| 🚊 File Edit View Window | Special Help |
| About This Computer | |
| 🔬 Apple System Profiler | |
| Calculator | |
| Chooser | ADSL Control and Status |
| 📓 Control Panels 🔹 🕨 | Appearance |
| 👔, Favorites 🕨 | Apple Menu Options |
| Key Caps | AppleTalk |
| Rey Caps | ColorSync |
| | Control Strip |
| Recent Applications | Date & Time |
| Recent Documents | DialAssist |
| 💣 Remote Access Status | Energy Saver |
| Scrapbook | Extensions Manager |
| sherlock 2 | File Exchange |
| 👸 Speakable Items 🕨 🕨 | File Sharing |
| 😺 Stickies | General Controls |
| | Internet |
| | Keyboard |
| | Keychain Access |
| | Launcher |
| | Location Manager |
| | Memory |
| | Modem |
| | Monitors |
| | Mouse Multiple Users |
| | Numbers |
| | QuickTime™ Settings |
| | Remote Access |
| | Software Update |
| | Sound |
| | Speech |
| | Startup Disk |
| | TCP/IP |
| | Text 🕅 |
| | USB Printer Sharing |
| | |

Figure 84 Macintosh OS 8/9: Apple Menu

2 Select Ethernet built-in from the Connect via list.

Figure 85 Macintosh OS 8/9: TCP/IP



- **3** For dynamically assigned settings, select **Using DHCP Server** from the **Configure:** list.
- **4** For statically assigned settings, do the following:

- From the Configure box, select Manually.
- Type your IP address in the IP Address box.
- Type your subnet mask in the **Subnet mask** box.
- Type the IP address of your gateway in the Router address box if you have one.
- **5** Close the **TCP/IP Control Panel**.
- 6 Click Save if prompted, to save changes to your configuration.
- 7 Restart your computer (if prompted).

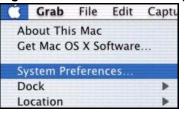
Verifying Settings

Check your TCP/IP properties in the TCP/IP Control Panel window.

Macintosh OS X

1 Click the Apple menu, and click System Preferences to open the System Preferences window.

Figure 86 Macintosh OS X: Apple Menu



- 2 Click Network in the icon bar.
 - Select Automatic from the Location list.
 - Select Built-in Ethernet from the Show list.
 - Click the TCP/IP tab.
- **3** For dynamically assigned settings, select Using DHCP from the Configure list.

| 00 | Networ | k | | e |
|-----------------------|--|--------|-----------------|----------------|
| 5how All Displays Net | work Startup Disk | | | |
| | Location: Automatic | | + | |
| Show: Built-in Ethe | rnet 🗘 | | | |
| | TCP/IP PPPoE App | leTalk | Proxies | |
| Configure | : Using DHCP | | + | |
| | | Doma | ain Name Serv | ers (Optional) |
| IP Address | : 192.168.11.12 (Provided by DHCP Server) | 168.9 | 95.1.1 | |
| Subnet Mask | : 255.255.254.0 | | | |
| Router | : 192.168.10.11 | Searc | h Domains | (Optional) |
| DHCP Client ID | : (Optional) | | | |
| Ethernet Address | : 00:05:02:43:93:ff | Examp | ole: apple.com, | earthlink.net |
| | | | | |
| Click the lock to | prevent further changes. | | | (Apply Now) |
| | | | | |

Figure 87 Macintosh OS X: Network

- **4** For statically assigned settings, do the following:
 - From the **Configure** box, select **Manually**.
 - Type your IP address in the **IP Address** box.
 - Type your subnet mask in the **Subnet mask** box.
 - Type the IP address of your gateway in the Router address box if you have one.
- 5 Click Apply Now and close the window.
- 6 Restart your computer (if prompted).

Verifying Settings

Check your TCP/IP properties in the Network window.

С

Pop-up Windows, JavaScripts and Java Permissions

In order to use the web configurator you need to allow:

- Web browser pop-up windows from your device.
- JavaScripts (enabled by default).
- Java permissions (enabled by default).



Internet Explorer 6 screens are used here. Screens for other Internet Explorer versions may vary.

Internet Explorer Pop-up Blockers

You may have to disable pop-up blocking to log into your device.

Either disable pop-up blocking (enabled by default in Windows XP SP (Service Pack) 2) or allow pop-up blocking and create an exception for your device's IP address.

Disable pop-up Blockers

1 In Internet Explorer, select Tools, Pop-up Blocker and then select Turn Off Pop-up Blocker.

Figure 88 Pop-up Blocker

| ools | | |
|-------------------|-----|-------------------------|
| Mail and News | • | |
| Pop-up Blocker | Þ | Turn Off Pop-up Blocker |
| Manage Add-ons. | | Pop-up Blocker Settings |
| Synchronize | 1 | |
| Windows Update | | |
| Windows Messen | ger | |
| Internet Options. | | |
| | | |

You can also check if pop-up blocking is disabled in the **Pop-up Blocker** section in the **Privacy** tab.

- 1 In Internet Explorer, select Tools, Internet Options, Privacy.
- 2 Clear the **Block pop-ups** check box in the **Pop-up Blocker** section of the screen. This disables any web pop-up blockers you may have enabled.

Figure 89 Internet Options

| Internet Options |
|--|
| General Security Privacy Content Connections Programs Advanced Settings Move the slider to select a privacy setting for the Internet zone. Setting for the Internet Setting for the Interne Setting for the Internet |
| Medium Blocks third-party cookies that do not have a compact privacy policy Blocks third-party cookies that use personally identifiable information without your implicit consent Restricts first-party cookies that use personally identifiable information without implicit consent |
| Sites Import Advanced Default Pop-up Blocker Prevent most pop-up windows from appearing. Block pop-ups Settings |
| OK Cancel Apply |

3 Click **Apply** to save this setting.

Enable pop-up Blockers with Exceptions

Alternatively, if you only want to allow pop-up windows from your device, see the following steps.

- 1 In Internet Explorer, select Tools, Internet Options and then the Privacy tab.
- 2 Select Settings...to open the Pop-up Blocker Settings screen.

| | | • | | | |
|---------------------------------------|---|---------------------------------------|---|-----------------|-------------|
| nternet Options | | | | | <u>?</u> [X |
| General Security | Privacy | Content | Connections | Programs | Advanced |
| Settings Move the zone. | ne slider to | o select a j | privacy setting I | for the Intern | net |
| Blo Blo - Blo - Blo - Blo | acy policy ocks third-p mation wit stricts first | oarty cook hout your -party coo | ies that do not ies that use pe implicit consent kies that use p it consent | rsonally iden | tifiable |
| Sites | | nport | Advanced. | | ault |
| <u>O</u> ! | t most pop :k pop-up: | | ws from appea | ring. Settir | ngs |
| | | ОК | Ca | ncel | Apply |

Figure 90 Internet Options

- **3** Type the IP address of your device (the web page that you do not want to have blocked) with the prefix "http://". For example, http://192.168.1.1.
- 4 Click Add to move the IP address to the list of Allowed sites.

Figure 91 Pop-up Blocker Settings

| Pop-ups are currently blocked. You can all Web sites by adding the site to the list below | |
|---|-----------|
| Address of Web site to allow: | |
| http://192.168.1.1 | Add |
| Allowed sites: | |
| | Remove |
| | Remove Al |
| | |
| | |
| | |
| | |
| | |
| | |
| Notifications and Filter Level | |
| Play a sound when a pop-up is blocked. | |
| Play a sound when a pop-up is blocked. Show Information Bar when a pop-up is blocked. | |
| Iotifications and Filter Level Play a sound when a pop-up is blocked. Show Information Bar when a pop-up is blocked. Filter Level: Medium: Block most automatic pop-ups | |

- **5** Click **Close** to return to the **Privacy** screen.
- 6 Click Apply to save this setting.

JavaScripts

If pages of the web configurator do not display properly in Internet Explorer, check that JavaScripts are allowed.

1 In Internet Explorer, click Tools, Internet Options and then the Security tab.

Figure 92 Internet Options

| Internet Options |
|---|
| General Security Privacy Content Connections Programs Advanced |
| Select a Web content zone to specify its security settings. |
| |
| |
| Internet Local intranet Trusted sites Restricted sites |
| Internet |
| This zone contains all Web sites you Sites |
| Mavent placed in other zones |
| Security level for this zone |
| Move the slider to set the security level for this zone. |
| Medium |
| Safe browsing and still functional Safe browsing and still functional Prompts before downloading potentially unsafe content |
| Unsigned ActiveX controls will not be downloaded |
| Appropriate for most Internet sites |
| |
| Custom Level Default Level |
| |
| OK Cancel Apply |

- 2 Click the Custom Level... button.
- **3** Scroll down to **Scripting**.
- 4 Under Active scripting make sure that Enable is selected (the default).
- 5 Under Scripting of Java applets make sure that Enable is selected (the default).
- 6 Click **OK** to close the window.

| ecurity Settings | | <u>? ×</u> |
|------------------------------|--------|------------|
| Settings: | | |
| 🔊 Scripting | | |
| Active scripting | | |
| O Disable | | |
| O Enable | | |
| O Prompt | | |
| Allow paste operations via | script | |
| O Disable | | |
| Enable | | |
| O Prompt | | |
| Scripting of Java applets | | |
| O Disable | | |
| Enable | | |
| O Prompt | | - |
| | | |
| L | | |
| Reset custom settings | | |
| Reset to: Medium | | Reset |
| Feser (or Integration | | 110500 |
| | | |
| | ОК | Cancel |

Figure 93 Security Settings - Java Scripting

Java Permissions

- 1 From Internet Explorer, click Tools, Internet Options and then the Security tab.
- 2 Click the Custom Level... button.
- **3** Scroll down to **Microsoft VM**.
- 4 Under Java permissions make sure that a safety level is selected.
- **5** Click **OK** to close the window.

Figure 94 Security Settings - Java

| <u>?</u> × |
|------------------|
| |
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| |
| |
| _ |
| |
| _ |
| |
| |
| |
| |
| |
| |
| - |
| |
| |
| ▼ R <u>e</u> set |
| |
| OK Cancel |
| |

JAVA (Sun)

- **1** From Internet Explorer, click **Tools**, **Internet Options** and then the **Advanced** tab.
- 2 make sure that Use Java 2 for <applet> under Java (Sun) is selected.
- **3** Click **OK** to close the window.

Figure 95 Java (Sun)

| Internet Options |
|--|
| General Security Privacy Content Connections Programs Advanced |
| <u>S</u> ettings: |
| Use inline AutoComplete Use Passive FTP (for firewall and DSL modern compatibility) ✓ Use smooth scrolling ✓ HTTP 1.1 settings ✓ Use HTTP 1.1 Use HTTP 1.1 through proxy connections ✓ Java (Sup) ✓ Use Java 2 v1.4.1_07 for <applet> (requires restart)</applet> |
| Microsoft VM Java console enabled (requires restart) Java logging enabled JIT compiler for virtual machine enabled (requires restart) Multimedia |
| Always show Internet Explorer (5.0 or later) Radio toolbar Don't display online media content in the media bar ✓ Enable Automatic Image Resizing |
| <u>R</u> estore Defaults |
| OK Cancel Apply |

D

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- "+" is the (prefix) number you dial to make an international telephone call.

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