

IB-23 Network Card User's Manual

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Preface

Thank you for choosing the award winning Kyocera network printing products. We are sure you will appreciate the high performance and low cost of ownership that are the hallmarks of Kyocera printing products.

The IB-23 is a Kyocera internal network interface card which may be easily installed without removing the printer main board. The IB-23 enables Kyocera Mita printers and digital copiers to communicate over an Ethernet network with many different network operating systems, including Windows, NetWare, Macintosh, and UNIX.

This manual provides full instructions on software configuration instructions allowing an experienced system administrator to get the IB-23 up and running quickly. For more concise instructions, refer to the printed IB-2x Quick Configuration Guide.

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FCC Notice

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

1. this device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

WARNING:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules, and the Canadian Department of Communications Equipment Standards entitled, Digital Apparatus, ICES-003. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from the one which the receiver is connected to.
- Consult the dealer or an experienced radio/TV technician for help.

The user may find the following booklet prepared by the Federal Communications Commission helpful:

The Interference Handbook

This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 004-000-00345-4.

NOTE: In order to maintain compliance with the limits of a Class B digital device, Kyocera Mita requires that you use quality interface cables when connecting to this device. Changes or modifications not expressly approved by Kyocera Mita could void the user's authority to operate this equipment. Refer to the manual for specifications on cabling types.



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IB-23 User's Manual

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Product Specifications

The IB-23 may be used in any Kyocera Mita printer with a compatible slide-in interface (KUIO). Contact your dealer regarding the supported printers and digital copiers.

Visit the following web site for the latest product information.

<http://www.kyoceramita.com/>

This section provides information about the features offered by the IB-23 as well as technical information and a description of IB-23 physical characteristics.

- [What Does the IB-23 Offer?](#)
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What Does the IB-23 Offer?

Automatic IP address configuration	<p>The IB-23 incorporates the DHCP/BOOTP protocol. This enables automatic assignment of TCP/IP parameters in environments running a DHCP or BOOTP server.</p> <p>The IB-23 implements the DHCP protocol in accordance with RFC2131/2132 and is compatible with the Windows NT 4.0/2000/Server2003 DHCP Server.</p> <p>The IB-23 also incorporates the RARP protocol. This enables automatic assignment of an IP address in environments running a RARP server.</p>
Web browser	You can call device and status information at any time using a web browser such as the Internet Explorer or the Netscape Navigator to access the interface card homepage.
Support for a variety of protocols	The IB-23 supports SMTP, POP3, SSL, SNMP, IPv6, and NetBIOS over TCP/IP to assist in printer administration and provide enhanced security.

Technical Specifications

IB-23

Item	IB-23
CPU	32-bit RISC
RAM	8 MBytes+2 MBytes flash
Connectors	10 Base-T/100 Base-TX
Printer interface	Kyocera Mita Universal IO slot (KUIO-LV), 3.3V, DMA
Indicators	See the diagram below.
Operating system	Windows 98/Me, Windows NT 4.0/2000/XP/Server2003, NetWare 3.x./4.x./5.x./6.0, MacOS 8.x/9.x/10.x, UNIX
Network protocols	IPv6 (Phase-1): HTTP, HTTPS, LPD, FTP, IPP, RawPort, ICMPv6 IPv4: HTTP, HTTPS, LPD, FTP, IPP, RawPort, ICMP, DHCP, BOOTP, RARP, SMTP, POP3, SNTP, DNS, WINS, NetBIOS over TCP/IP, SNMPv1/v2c/v3, ThinPrint, Apple Bonjour Compatible Other: IPX/SPX, NetWare (NDS/Bindery), AppleTalk, NetBEUI
Operating conditions	10 to 35°C, 20 to 80 % RH, no condensation
Storage conditions	-10 to 50°C, 20 to 90 % RH, no condensation
EMI conformity	FCC Class B (USA), CE (EU), VCCI Class B (Japan)

NOTE: Specifications may change without notice.

Connector and Indicators

The IB-23 features the following ports and indicators.

1. 10BaseT/100BaseTX Connector
2. 10BaseT Indicator lights when connected to a 10 Mbps network.
3. 100BaseTX Indicator lights when connected to a 100 Mbps network.
4. Status Indicator lights while receiving and transmitting data.

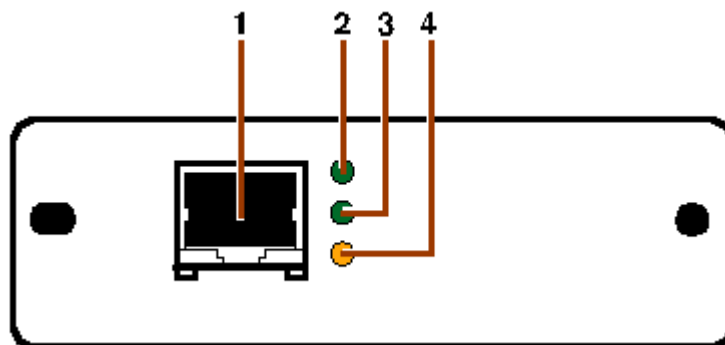


Figure 1. Ports and Indicators



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Installing the IB-23 Interface Card in the Printer

This section guides you through installing the IB-23 network interface card. The IB-23 can easily be installed in the printer.

! Note: IB-23 installation is not necessary for many Kyocera Mita printer models that include a built-in IB-23 interface.

Installing the IB-23 in the Printer

WARNING: Be sure to turn off the printer before installation. Damage to both the printer and the IB-23 may result if the following procedure is followed while the printer power is on.

 **IMPORTANT:** To avoid damaging the IB-23 owing to static electricity, discharge your body before touching the interface card. Hold the IB-23 only by the metal connector plate.

The instructions below describe the installation of the IB-23 into a typical Kyocera Mita printer and are similar to all Kyocera Mita printers and digital copiers that are incorporated with the standard KUJO (Kyocera Universal I/O) slide-in interface.

1. Turn printer power off and unplug the AC power cable from the printer.
2. At the back of the printer, remove the cover by unscrewing the two screws. Retain this cover for future re-use.
3. Insert the IB-23 into the slot aligning both edges of the card with the guides in the slot. Push the IB-23 all the way into the slot and secure it using the screws.

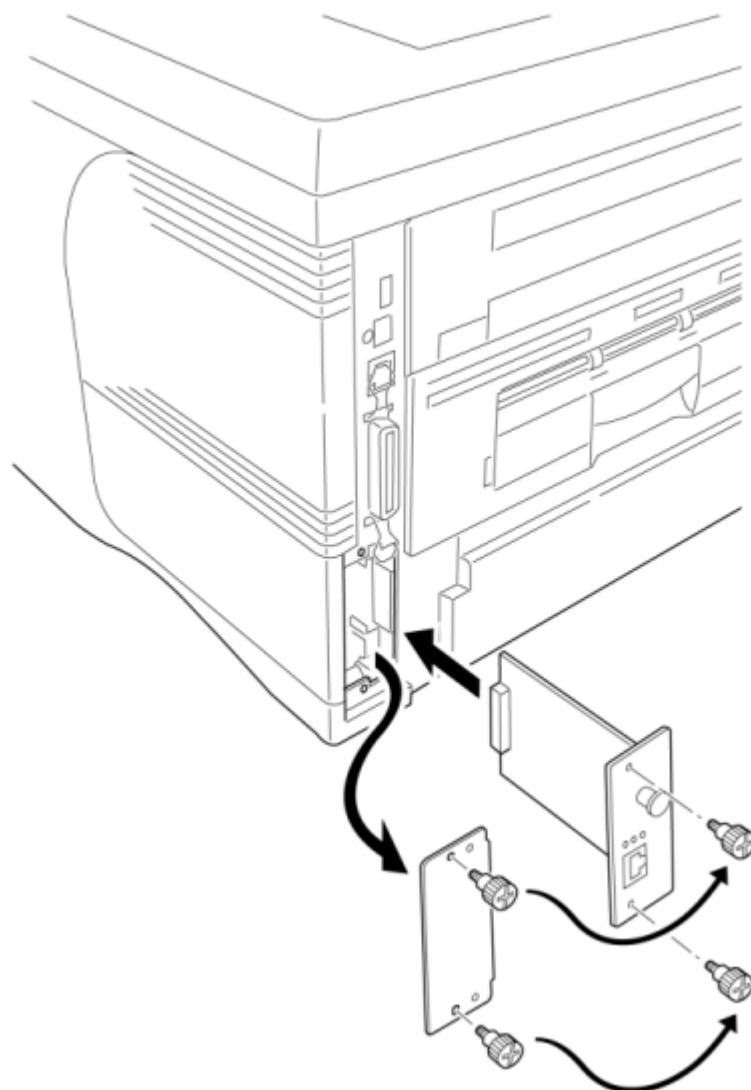


Figure 1. Inserting the IB-23

4. Connect the network cable to the interface card using a twisted pair cable for the 10/100baseT connector.
5. Plug the power cable to the printer inlet. Turn printer power on.

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IP Address Configuration

This section describes several methods for configuring the IP address information for the IB-23.

The method you use will depend on your particular network configuration as well as your personal preferences. For example, if your network includes a DHCP server, then you will likely use DHCP for setting the IB-23 IP addresses.

Following are the possible methods for configuring the IP addresses:

- [Using DHCP](#)
- [Using WINS](#)
- [Using Quick Setup](#)
- [Using RARP or BOOTP](#)
- [Using ARP](#)
- [Using the Printer's Operator Panel](#)

After following the procedures in this section to configure the IP address, it is recommended to verify the IP address settings:

- [Verifying the IP Address Settings](#)

Using DHCP

DHCP (Dynamic Host Configuration Protocol) provides a mechanism for delivering IP configuration parameters, including IP address, subnet mask, etc. to devices on an IP network. DHCP alleviates the administrative burden of managing individual IP addresses.

A DHCP server processes IB-23 DHCP discovery broadcasts and returns an IP address to the IB-23. The DHCP server may be set up to grant an IP address for a limited time (a temporary lease) or for an unlimited (an unlimited lease), or it may be configured with a permanent address reservation for the IB-23.

! Note: *In a non-WINS environment (See WINS Configuration, below.), it is highly recommended to set up the DHCP server to grant the IB-23 an unlimited lease or permanent address reservation.*

Unlimited Lease or Address Reservation in Windows NT 4.0 and Windows 2000

In Windows NT 4.0 and 2000, lease duration is set for a particular scope, or group of addresses. Thus, lease duration should be set to Unlimited for the scope to which the IB-23 belongs. If this is not desired, then the IB-23 should be defined as a *Reserved Client*.

Use the following procedure in Windows DHCP Manager to add a reserved client.

1. Select the scope that the IB-23 will belong to, then select **Add Reservations** from the **Scope** menu. The **Add Reserved Clients** window will open.

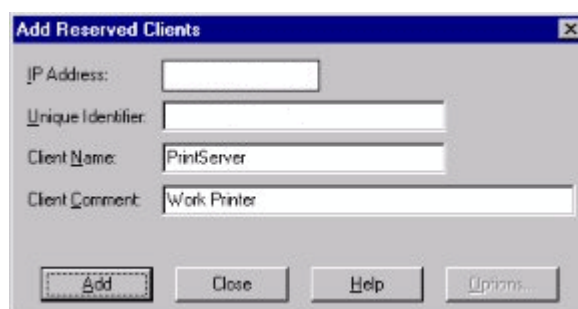


Figure 1. Adding a Reserved Client

- In **Figure 1**, enter the IB-23 MAC address (Do not enter the colons, e.g. '00:c0:ee:14:00:87. '), IP address, and other information. The IB-23 MAC address may be obtained from the IB-23 Network Status Page.
- Click **Add**.
- Turn printer power on. The printer receives the IP address from the DHCP server. You can print the network status page to confirm the IP address.

Verifying the Active Lease Status

You can verify active leases for a particular scope by opening the **Active Leases** windows:

- From the **Scope** menu, select **Active Leases**. Reserved clients will display "Reservation" or "Reservation in use" beside the client name.

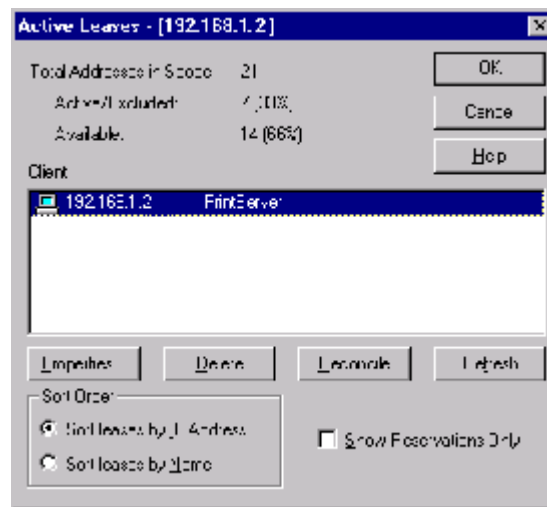


Figure 2. Verifying Lease Status

Disabling DHCP

If IP address assignment with DHCP is not desired, it may be disabled using the IB-23 Quick Setup wizard, the printer front panel, a web browser, or several other methods.

IMPORTANT: Note, however, that DHCP IS AUTOMATICALLY DISABLED when the IP address is set using any other method such as the Quick Setup wizard, printer front panel, etc.

IP Address Persistence

When the printer is turned off and back on will the IB-23 retain its IP address?

- | | |
|------------------|--|
| Temporary | If a temporary lease is obtained from a DHCP server, then the IP address is temporary. That is, when the printer is turned off and back on, the IB-23 does not begin using its IP address until it has negotiated with a DHCP server. Thus, if a DHCP server is not available, the IB-23 will not have an IP address. This is necessary to prevent IP address conflicts in a DHCP environment. |
| Permanent | If an unlimited lease or address reservation is obtained from a DHCP server, or if set by any method other than DHCP, then the IP address is permanent. That is, when the printer is turned off and back on, the IB-23 will begin using its assigned IP address. |

Using WINS

WINS (Windows Internet Naming Service) is used by Windows NT to provide a mechanism for mapping the NetBIOS name, commonly referred to as 'host name,' to an IP address. WINS requires a Windows NT 4.0/2000/Server2003 to be configured as a WINS server.

WINS enables defining a printing configuration which references the printer by its name rather than by its IP address. Thus, even if the printer IP address is changed via DHCP, the printing configuration will still be valid and printing will continue uninterrupted. Another advantage of WINS is that a new IB-23 may seamlessly replace an old IB-23 simply by:

- giving the new IB-23 the same host name as the old IB-23, or
- modifying the Windows LPR port configuration for the old IB-23 with the host name of the new IB-23.

WINS Registration and Naming

The IB-23 must be given the address of the primary WINS server where it will register its host name. It may optionally be given the address of a secondary WINS server. The DHCP server is often setup to provide the IB-23 with its host name and the WINS server addresses. Refer to your DHCP server documentation for the proper setup procedures.

Alternatively, the following web browser procedure may be used to configure the host name and WINS server addresses:

1. Launch a web browser.
 2. In the address bar, enter the IP address assigned to the IB-23.
 3. After the web browser displays the IB-23 COMMAND CENTER, click the Advanced tab.
 4. The webpage for basic TCP/IP settings is displayed.
 5. By **DHCP**, click **ON** to activate address discovery and assignment using DHCP.
 6. Enter the WINS server information. You can usually obtain this information from the network administrator.
- IP address of primary WINS server
 - IP address of secondary WINS server
 - Scope ID

The screenshot shows a web browser window titled "http://192.168.1.2/ - Microsoft Internet Explorer". The address bar shows "http://192.168.1.2/". The page header includes the Kyocera logo and "COMMAND CENTER". In the top right corner, it says "FS-6950" and "Status: O". Below the header is a navigation bar with tabs: "Start", "Basic", "Printer", and "Advanced". The "Advanced" tab is selected. On the left side, there is a sidebar menu with categories: "Advanced", "Protocols", "Management / E-mail", "Security", "Information", and "Contacts". Under "Protocols", "TCP/IP" is selected. The main content area is titled "TCP/IP General" and has sub-tabs: "General", "IP Filters", and "Logical Printers". The "General" sub-tab is active. Below this is a "General Settings" section with two columns of fields. The left column contains: "Host Name" (KM140087), "IP Address" (192.168.1.2), "Subnet Mask" (255.255.255.0), "Default Gateway" (192.168.1.1), "DHCP" (radio buttons for On and Off, with Off selected), "BOOTP" (radio buttons for On and Off, with Off selected), "Bonjour" (radio buttons for On and Off, with On selected), "Bonjour Name" (KM140087), and "RARP" (radio buttons for On and Off, with Off selected). The right column contains: "ThinPrint" (radio buttons for On and Off, with Off selected), "ThinPrint Port Number" (4000), "DNS Server (Primary)" (10.183.48.248), "DNS Server (Secondary)" (10.183.48.252), "Domain Name" (yohga.kyoceramita.co.jp), "WINS Server (Primary)" (10.183.48.248), "WINS Server (Secondary)" (10.183.48.252), and "Scope ID" (empty field). At the bottom of the browser window, there is a "Done" button and an "Internet" icon.

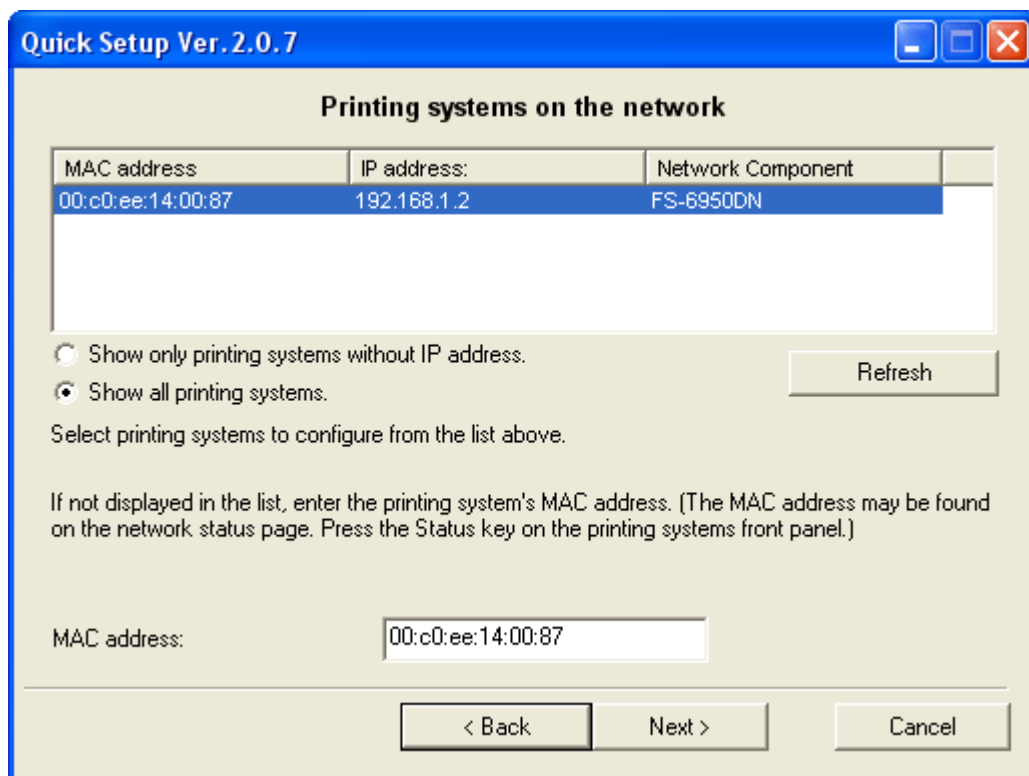
Figure 3. COMMAND CENTER TCP/IP General Settings Page

7. Click Submit. The WINS server information is stored, and the IB-23 restarts.

Using Quick Setup

Follow the steps below to use Quick Setup (bundled with the IB-23) to configure the IP address in the IB-23. Follow these steps to set up a fixed IP address.

1. Launch Quick Setup.
 - For instructions on launching Quick Setup, refer to the section on installing the utilities.
2. From the Quick Setup list screen, select the IB-23 to configure and click **Next**.



Quick Setup Ver. 2.0.7

Printing systems on the network

MAC address	IP address:	Network Component
00:c0:ee:14:00:87	192.168.1.2	FS-6950DN

☐ Show only printing systems without IP address.
☒ Show all printing systems.

Refresh

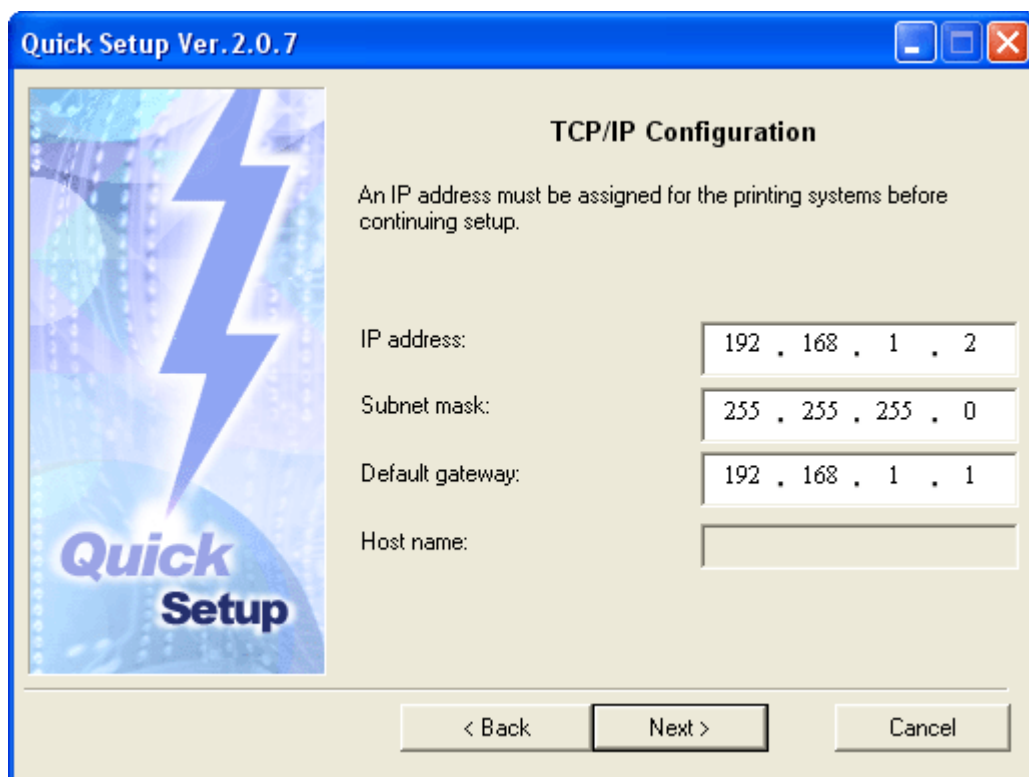
Select printing systems to configure from the list above.

If not displayed in the list, enter the printing system's MAC address. (The MAC address may be found on the network status page. Press the Status key on the printing systems front panel.)

MAC address:

Figure 4. Quick Setup List Screen

3. In **IP Address**, **Subnet mask**, and **Default gateway**, enter the information obtained from the network administrator. Click **Next**.



Quick Setup Ver. 2.0.7

TCP/IP Configuration

An IP address must be assigned for the printing systems before continuing setup.

IP address:
 Subnet mask:
 Default gateway:
 Host name:

Figure 5. Quick Setup TCP/IP Settings Screen

4. A confirmation screen is displayed. Confirm the settings and click **Next**. After the IB-23 automatically restarts, address setting is complete. You can complete the advanced settings on the IB-23 as needed by accessing the IB-23 with a web browser.

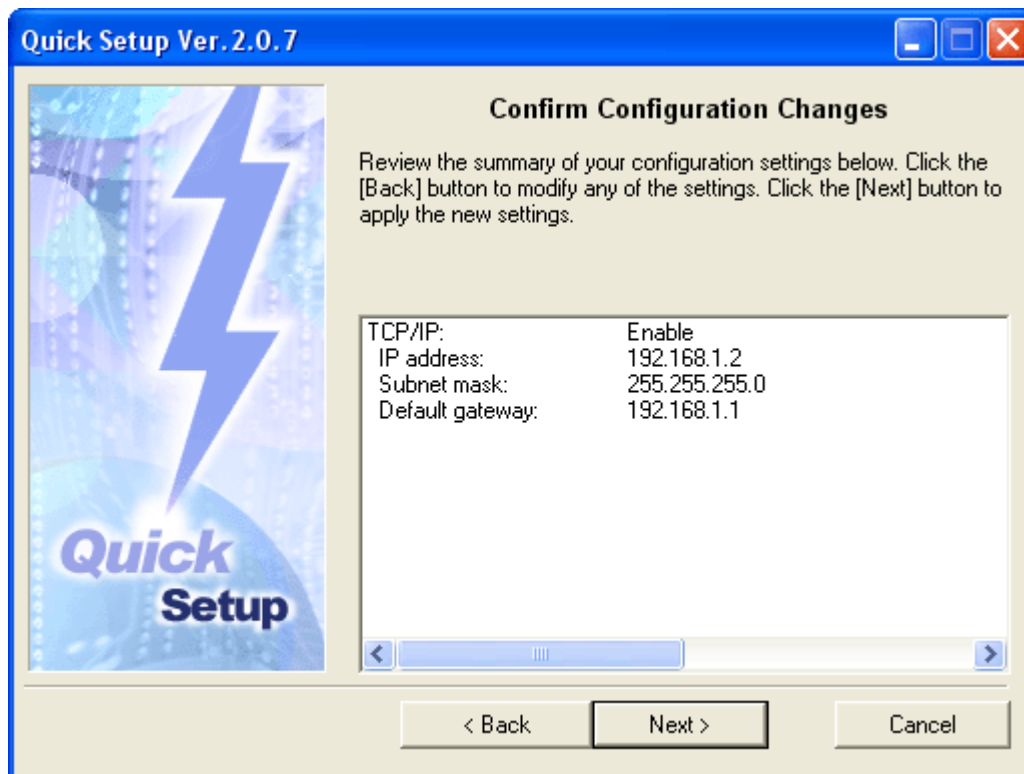


Figure 6. Quick Setup Confirmation Screen

Using RARP or BOOTP

You can resolve the IP address via RARP or BOOTP over the Ethernet connection. The host computer must support either protocol as the boot server. The address information will be stored in a configuration file on the server as, for example, ethers or bootptab file. The interface card issues each time the IB-23 is turned on RARP and BOOTP requests and attempt to receive the configuration information returned by the server.

To prepare a configuration file for BOOTP:

1. Properly connect the IB-23 to the network.
2. Create and store the configuration information in a */etc/bootptab* file.
 - For example, to set '192.168.1.2' for IP address; the hardware address is '00:c0:ee:14:00:87,' enter as follows:

```
ht=ether:\           #Target hardware type
ha=00c0ee140087:\    #Target hardware address
ip=192.168.1.2:\
gw=192.168.1.1:\     #Default gateway address
sm=255.255.255.0:\   #Subnet mask
```

3. In */etc/inetd.conf*, add:

```
bootps dgram, udp wait root /etc/bootpd bootpd
```

4. Reset inetd by:

```
kill -1 1
```

5. Turn IB-23 power off, then on.

- The IB-23 automatically issues BOOTP requests to the server and receives the BOOTP response to obtain the configuration information.

To prepare a configuration file for RARP:

1. Properly connect the IB-23 to the network.
2. Create and store the configuration information in a */etc/ethers* file.
 - For example, to set '192.168.1.2' for IP address; the hardware address is '00:c0:ee:14:00:87,' enter as follows:

```
00:c0:ee:14:00:87 192.168.1.2
```
3. Start RARPD on the workstation. Enter:

```
rarpd -a
```
4. Turn IB-23 power off, then on.
 - The IB-23 automatically issues RARP requests to the server and receives the response to obtain the configuration information.

The RARP information the server returns contains only the IP address. To configure the subnet mask, gateway address, and other information, you must use a web browser.

Using ARP

ARP is available for resolving IP addresses both in Windows and UNIX networks. The IP information can be set by registering it in the ARP table.

! Note: Using this address resolution method requires the IB-23 IP address to be 0.0.0.0.

Using the 'arp' Command and 'ping' command

1. Properly connect the IB-23 to the network and turn the power on.
2. In UNIX, define the interface card in the ARP table by using ARP as the following example:

```
arp -s 192.168.1.2 00:c0:ee:14:00:87 temp
```

In Windows, at the DOS prompt:

```
arp -s 192.168.1.2 00-c0-ee-14-00-87
```

This procedure only 'registers' the IP address in the ARP table and does not 'write' it in the IB-23. Perform the following step.

3. Ping the IB-23 address by commanding at the DOS prompt:

```
ping 192.168.1.2
```

4. If the interface card successfully returns a reply, the setup is complete.

Using the Printer's Operator Panel

You can directly enter the IP address, gateway address, and subnet mask address using the menu system from the operator panel. The following procedure is applicable to virtually all Kyocera Mita printers except those having no operator panel. For digital copier operator panel setting instructions, refer to the operation manual.

To set the IP address information, proceed as follows:

1. Press **MENU (MODE)**.
2. Press the **^ (+)** key until the printer displays:

```
Interface      >
Option
```

If the above does not show 'Option,' press **ENTER**. Press the **^ (+)** key repeatedly until it shows *Option*. Then, press **ENTER** again.

3. Press the **>** key.
4. Press the **^ (+)** key until the printer displays:

```
>TCP/IP      >
On
```

5. Press the **>** key.
6. Press the **^ (+)** key until the printer displays:

```
>>IP Address
000.000.000.000
```

7. To enter the IP address, press **ENTER**. A cursor (**_**) begins to blink at the rightmost 3-digit segment. Use the **^ (+)** key to increase and the **v (-)** key to decrease the figure. When the rightmost segment is done, use the **<** key to move the cursor to the next segment. Again, use the **^ (+)** key to increase and the **v (-)** key to decrease the figure for the segment. Repeat this procedure for all the segments. When all segments are done, press **ENTER**.
8. Press the **^ (+)** key. The printer will display:

```
>>Gateway
000.000.000.000
```

Using the same manner as 7. above, complete the gateway address. Press **ENTER**.

9. Press the **^ (+)** key. The printer will display:

```
>>Subnet mask
000.000.000.000
```

Using the same manner as 7. above, complete the subnet mask address. Press **ENTER**.

10. Press **MENU (MODE)**. Turn the printer off and on. IP address configuration is complete.

Verifying the IP Address Settings

Print a network status page to verify that the IP address information has been properly set.

The network status page will also be useful during diagnostics on network problems.

To print a network status page, refer to the printer's manual.



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Installing the Software Utilities

The IB-23 Library CD-ROM bundled with the IB-23 includes handy utilities. Quick Setup is an administration utility for accessing the IB-23 to configure the network settings. KPrint is a utility for creating a TCP/IP port in Windows. This section gives instructions for using Quick Setup and KPrint.

The CD-ROM is for use in the following environments:

- Windows 98/Me
- Windows NT 4.0/2000/XP/Server2003

About the CD-ROM

Inserting the CD-ROM causes the **Main Menu** to be displayed automatically. If the **Main Menu** is not displayed automatically, double click the *Setup.exe* file in the root directory of the CD-ROM.

The CD-ROM includes the following software utilities and documentation:



Figure 1. CD-ROM Main Menu

Quick Setup Wizard	A setup wizard for easy installation of the IB-23. The wizard runs directly from the CD-ROM, without being installed on the hard disk. Simply follow this wizard for basic installation of the IB-23.
Install KPrint Software	A utility for creating a TCP/IP port in Windows to enable printing via peer-to-peer communication. This utility is installed on the hard disk.
View Operation Guide	Displays the operating guide (this manual) for the IB-23 and the utilities described above.

View Setup Guide

Displays a manual that describes the basic setup when you purchase the IB-23.

Launching Quick Setup

Follow these steps to run Quick Setup.

1. Insert the IB-23 Library CD-ROM in the CD-ROM drive. The CD is played automatically, and the main menu is displayed. See **Figure 1**.
 2. Click **Quick Setup Wizard**.
 3. Follow the wizard instructions to complete the installation.
-

Installing KPrint

Follow these steps to install KPrint.

1. Insert the IB-23 Library CD-ROM in the CD-ROM drive. The CD is played automatically, and the main menu is displayed.
2. Click **Install KPrint Software**.
3. Follow the wizard instructions to complete the installation.

Launching KPrint

To run KPrint, from the Windows **Start menu**, go to **All Programs > Kyocera**. Click **KPrint Add Port**.



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Installing the Printer Drivers

This page explains about the steps to install printer drivers. Printer drivers are installed in Windows so that print jobs are printed using the printer port. Drivers also offer various printer settings. As your printer port, you can choose KPrint Port for direct, "peer-to-peer" printing via TCP/IP.

Printer drivers can be installed from the Software Library CD-ROM bundled with your printer. You can also download and install the latest printer drivers from www.kyoceramita.com.

Installing Printer Drivers

1. Insert the Software Library CD-ROM in the CD-ROM drive.
 - After a while, the Main Menu screen is displayed. Click Exit to close the main menu.
2. From the Windows **Start** menu, go to **Control Panel > Printers and Other Hardware > Printers and Faxes > Add Printer**. The **Add Printer Wizard** is displayed. Click **Next**.

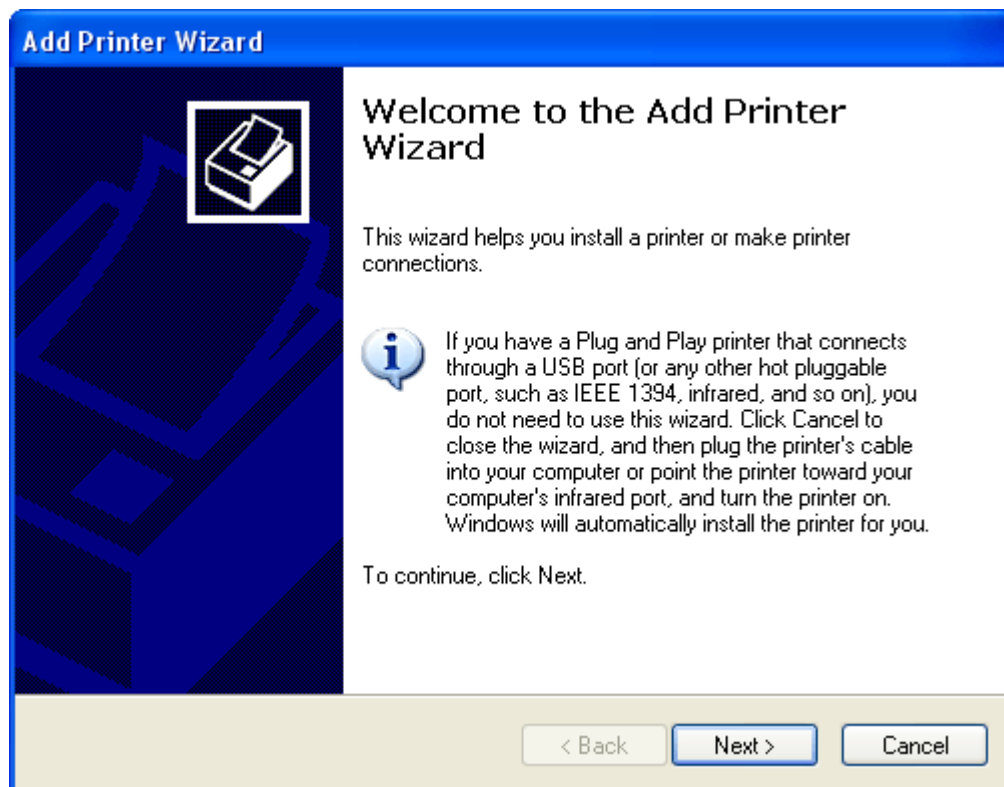


Figure 1. Add Printer Wizard

3. The screen for selection of local or network printer is displayed. Choose **Local printer attached to this computer**. Uncheck **Automatically detect and install my Plug and Play printer** and click **Next**.

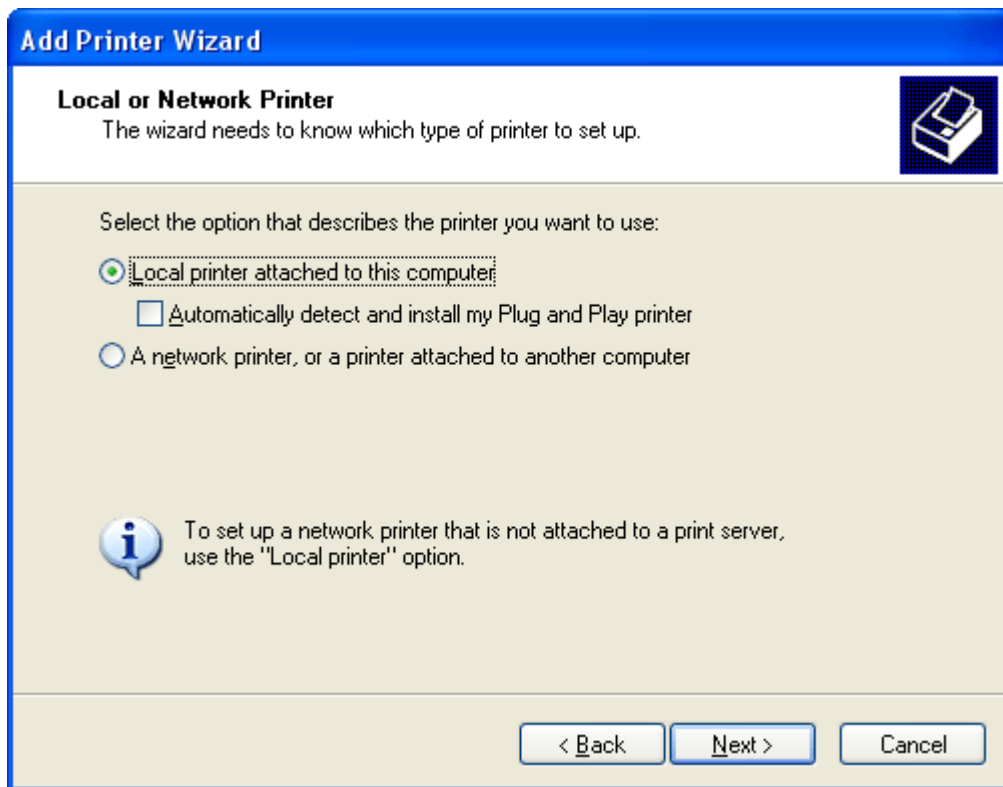


Figure 2. Selection of Local or Network Printer

4. The screen for printer port selection is displayed. Choose **Create a new port**. In **Type of port**, select **KPrint Port** from the dropdown menu and click **Next**.

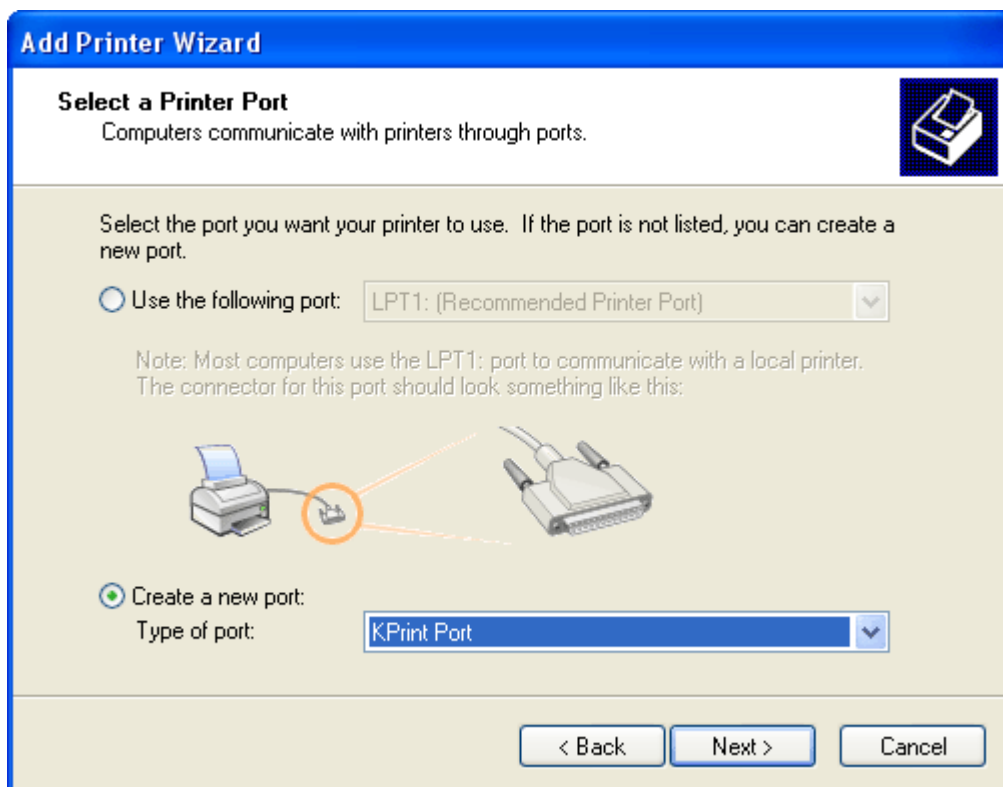


Figure 3. Printer Port Selection

5. The **KPrint Add Port Wizard** is displayed. Select the mode to use and click **Next**. Check with your network administrator regarding which mode you should use.

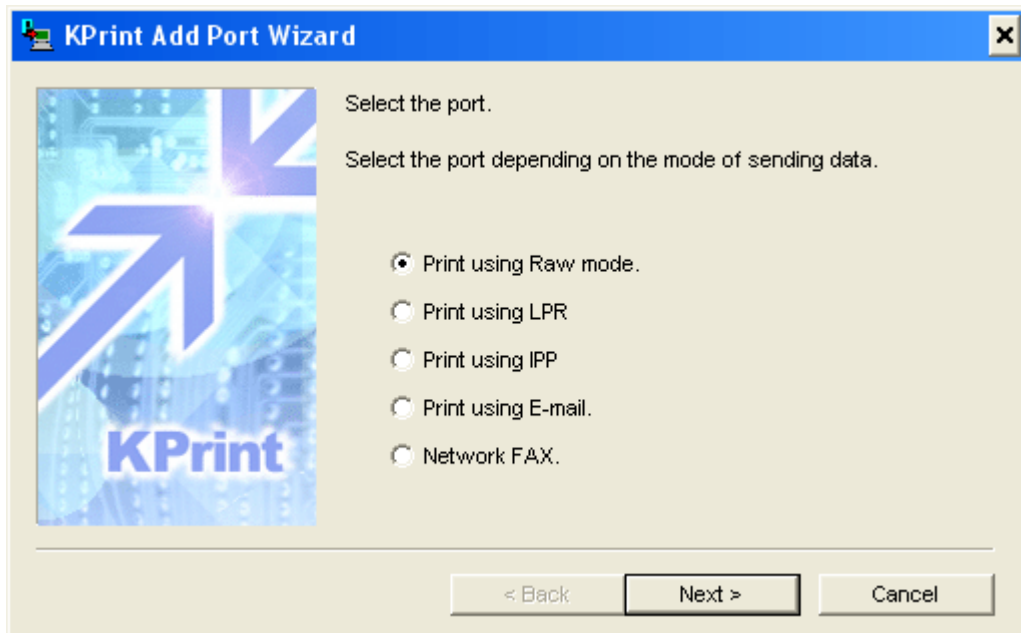


Figure 4. The Mode Selection Screen in the KPrint Add Port Wizard

6. Enter the IP address or host name of the IB-23 in the **IP Address or Host Name** field. Otherwise, you can click **Search** to display a list of the IB-23 on the network and select the IB-23 to connect. Click **Next**.

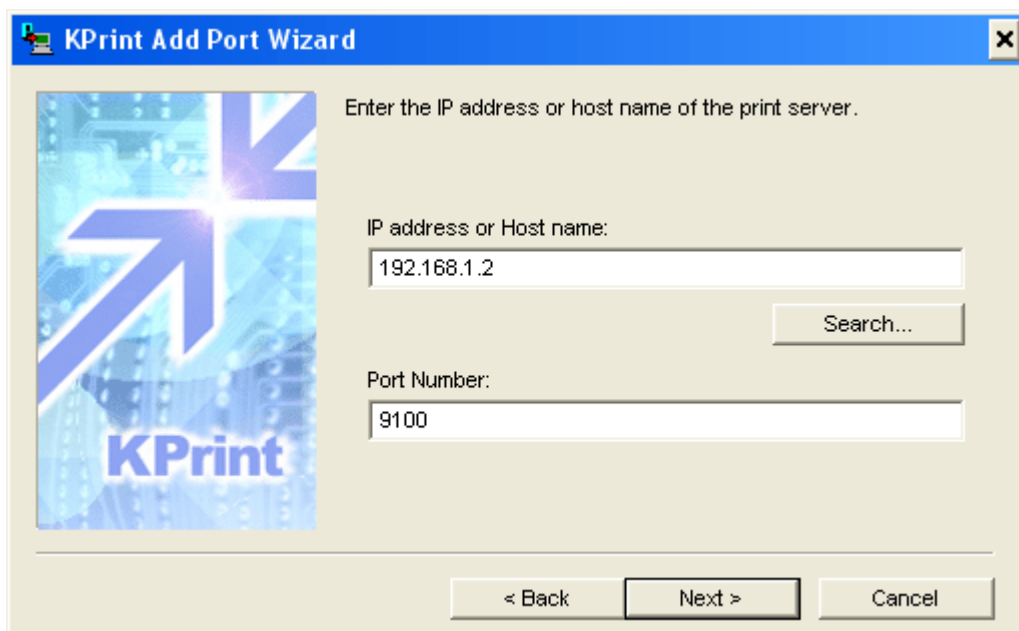


Figure 5. Address Input in the KPrint Add Port Wizard

7. The port name of the destination printer is displayed. Confirm the name and click **Next**.



Figure 6. The Destination Printer Port Screen in the KPrint Add Port Wizard

8. Confirm the information and click **Finish**.

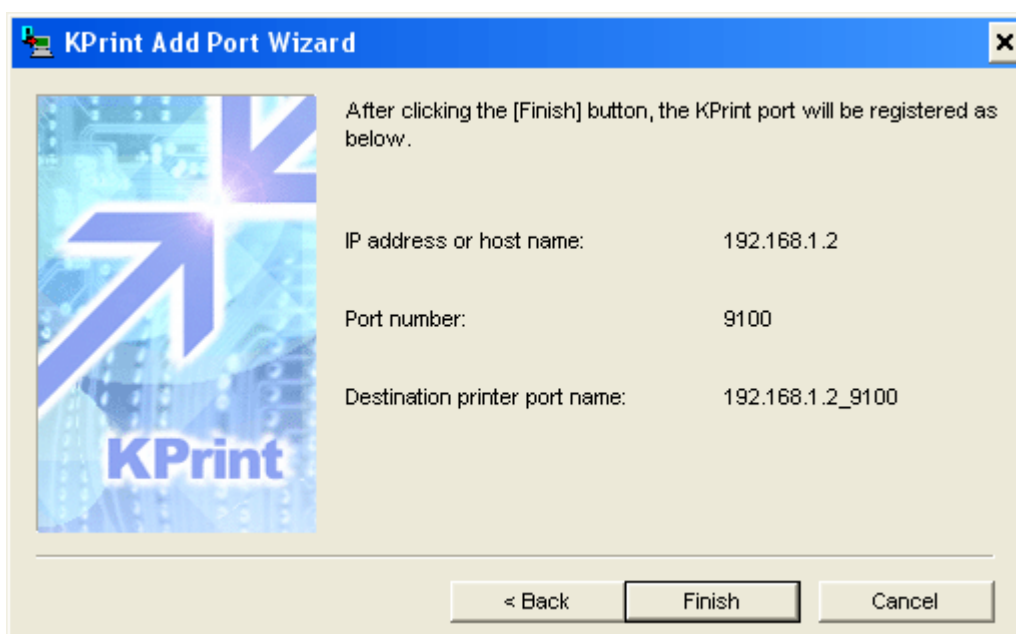


Figure 7. Confirmation Screen in the KPrint Add Port Wizard

9. After the printer software installation screen is displayed, click **Have Disk**. The screen for installation from floppy disk is displayed. Click **Browse**. After the file selection dialog is displayed, navigate to **My Computer > CD-ROM Drive > Drivers > KXDriver > Win2k_XP** and click **OK**.
 - For **Win2K_XP**, choose the folder corresponding to your version of Windows.

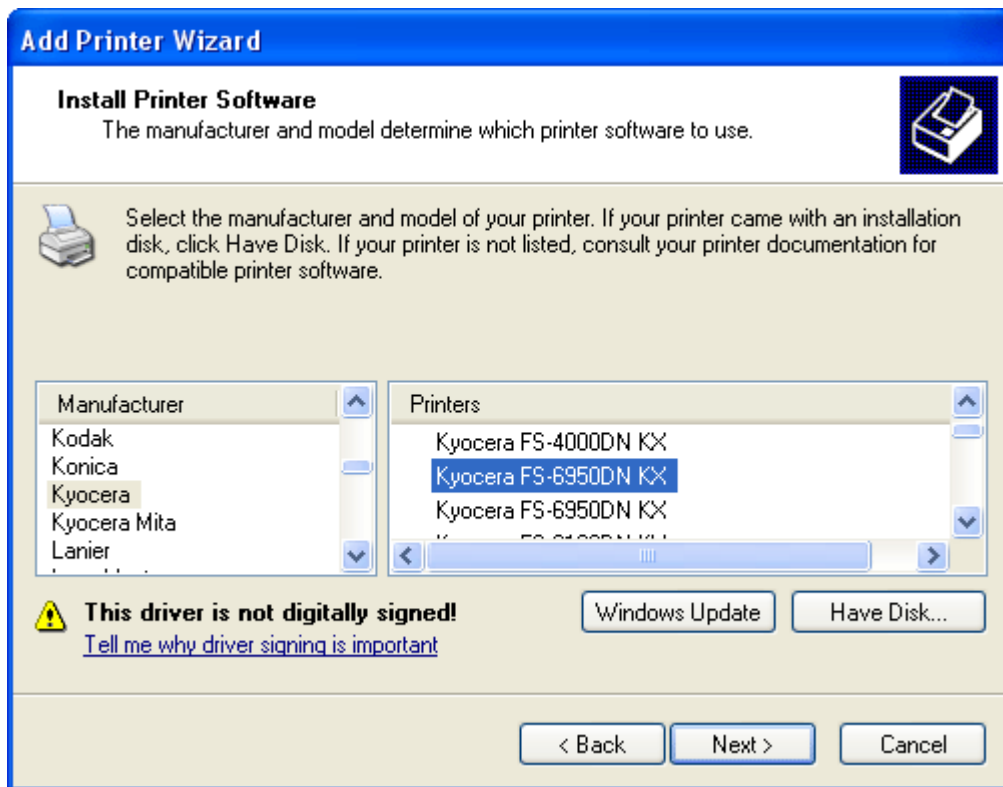


Figure 8. Printer Software Installation Screen

10. After the printer drivers on the CD-ROM are listed, select the model of your printer and click **Next**.
11. In the screen for naming the printer, make sure the model name is displayed in the printer name field and click **Next**.
12. The printer sharing screen is displayed. Select whether or not to share the printer and click **Next**.
13. The Test Page printing screen allows you to print a test page after the driver is installed. Choose **Yes** or **No** and click **Next**.
14. When the final screen of the **Add Printer Wizard** is displayed, confirm the settings and click **Finish**.

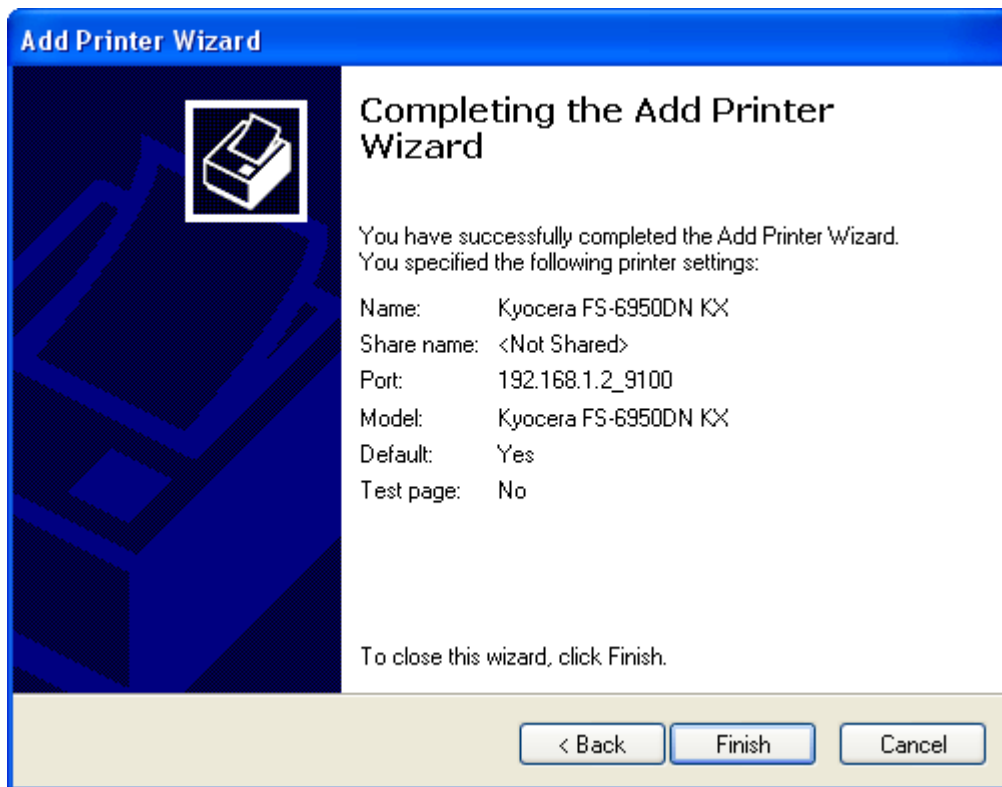


Figure 9. Completing the Add Printer Wizard

- After the printer driver is installed, a message to restart your computer may be displayed depending on the operating system. In this case, follow the instructions and restart your computer.

Windows Printing: TCP/IP

This section explains how to install the IB-23 for the Windows 98/Me environment. This section covers the following topics:

- [Which Print Method to Use?](#)
- [Configuring the PC for TCP/IP](#)
- [Creating a KPrint Port for TCP/IP Printing](#)
- [Installing the Printer in Windows 98/Me](#)

Microsoft Windows encompasses a wide range of client versions; from Windows 98 to Windows XP, and thus a wide range of printing capabilities. The various versions of Windows in combination with the IB-23 offer the network printing capabilities described below.

LPR (Line Printer Remote)	Printing to a Windows LPR spooler over TCP/IP connection.
RAW	Select Print Using RAW Mode if you are using Logical Printer Mode in a TCP/IP environment and you are using a port number other than 9100.
IPP (Internet Printing Protocol)	Printing over the Internet or intranet using the Internet Printing Protocol.
E-mail printing	Sending e-mail to the mail server from which the IB-23 retrieves the e-mails (print jobs).
Novell NetWare	Printing to a NetWare print queue when a NetWare server is present. For details on NetWare printing, see NetWare Printing .
NetBEUI	Peer to peer printing using the NetBEUI protocol. Printers are available in Windows Network Neighborhood. NetBEUI printing is fully detailed in Windows Printing: NetBEUI . For Windows XP, you must install the NetBEUI protocol from the Windows XP installation CD-ROM.
Windows Printer Sharing	Printing to a shared network printer which is configured on another Windows PC.

To prepare the IB-23 for TCP/IP communication, use Quick Setup, the bundled utility. Following the wizard offers an easy way to configure the above network settings. For instructions on launching Quick Setup, refer to the section on [Installing the Software Utilities](#). You can also complete these settings by using a web browser to access the internal webpage of the IB-23. For details, refer to the section on [Using a Web Browser to Manage the IB-23](#).

Which Print Method to Use?

The optimum Windows printing configuration for you depends upon your particular environment including user and administrator experience and preferences.

- Generally, NetWare print services will be utilized when a NetWare server is present.
- In the absence of a NetWare server, LPR printing in combination with printer sharing is often utilized when TCP/IP is already in use.
- Select **Print by using Raw mode** when using a port other than 9100 in the logical printer mode you want use.
- NetBEUI peer-to-peer printing is most often utilized when a centralized NetWare or Windows print server is not present.
- IPP is utilized when printing across the Internet or intranet is required.

Configuring the PC for TCP/IP

To see if your Windows PC has the TCP/IP protocol already installed, proceed as follows:

1. Select Windows **Start**, **Settings**, then **Control Panel**.

2. Double click **Network**.
3. Click the **Configuration** tab and locate **TCP/IP ->**

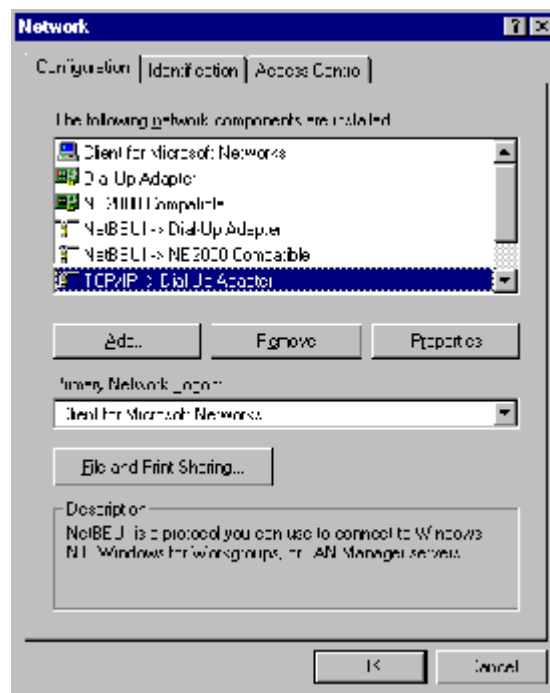


Figure 1. TCP/IP Protocols in Network Protocols

- If **TCP/IP -> (Network adapter name)** is not in the list, click on **Add** to install it. For details on installing network services and protocols in Windows, refer to the Windows documentation or Help.
- You can verify the IP address, subnet mask, and gateway currently set for your PC by selecting **TCP/IP -> (Network adapter name)** and clicking **Properties**.

Creating a KPrint Port for TCP/IP Printing

The KPrint Port is a printer port you create in Windows to print from the printer driver to the network card's IP address. This is why we include KPrint, a dedicated utility for the IB-23. KPrint enables you to create the TCP/IP port.

Once installed, you can use the KPrint utility to create the port in Windows for any IB-23 present in the network. If you have not already done so, install the KPrint utility following the procedure in [Installing the Software Utilities](#).

Using TCP/IP Port:

1. Run the **KPrint Add Port wizard** by selecting Windows **Start**, **All Programs**, and **Kyocera**, and clicking **KPrint Add Port**.
2. Select the mode to use and click **Next**. Check with your network administrator regarding which mode you should use.
3. In **IP address or host name** below, enter the IP address of the IB-23 to connect. If you click **Search**, the **IB-23 Search** window opens. This will search and list all available IB-23 in the network. Select the IB-23 you want to connect the TCP/IP port.
 - If you click **Configure**, you can modify the scope of the search by specifying one or more specific network segment addresses. In the **Search Configuration** window, enter the network segment followed by '255,' e.g. '171.62.186.255.' This causes the search to be conducted only in the '171.62.186.0' segment.

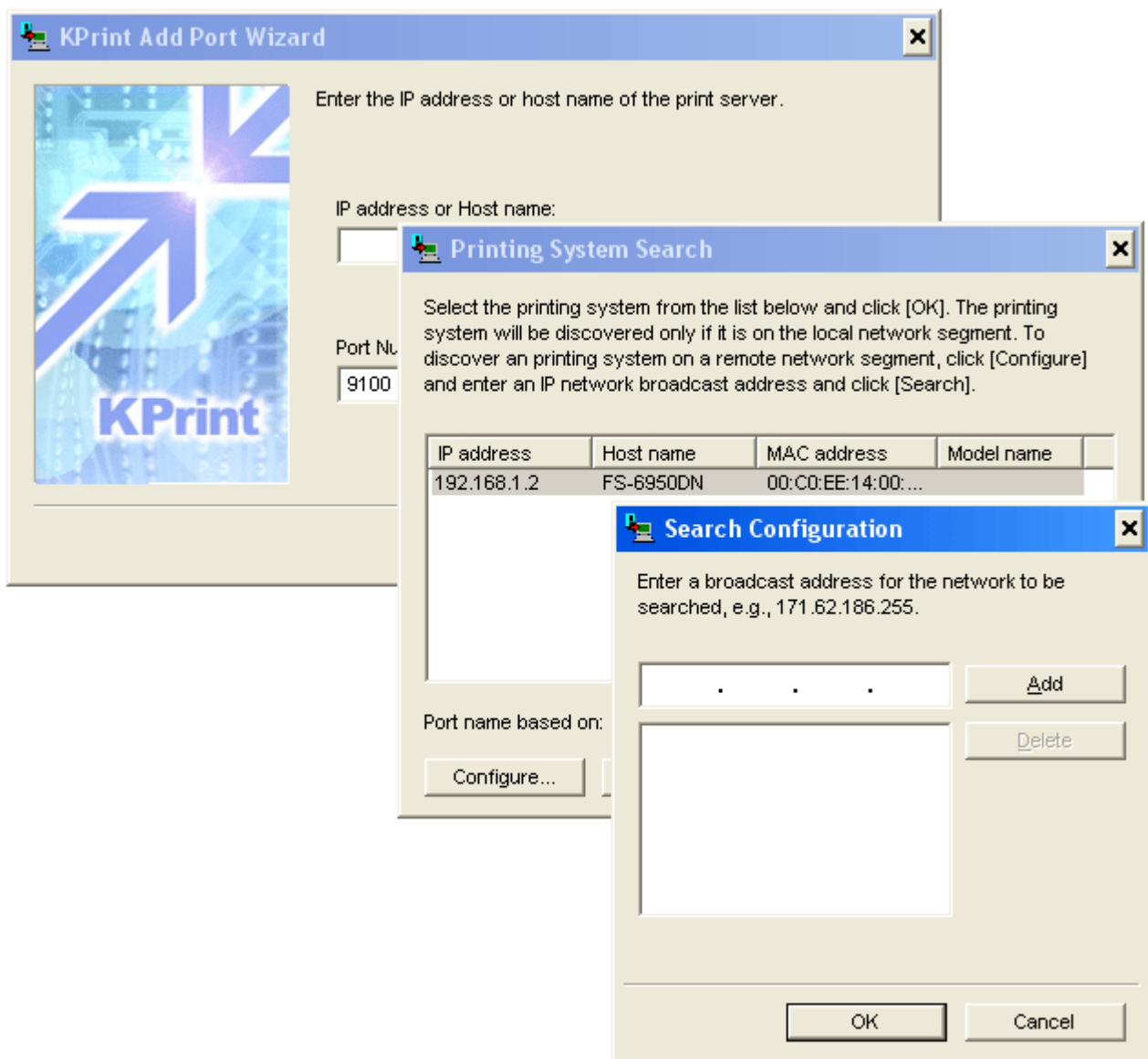


Figure 2. Specifying IP Address for the Port

4. Click **Next**. **Destination printer port name** is displayed.

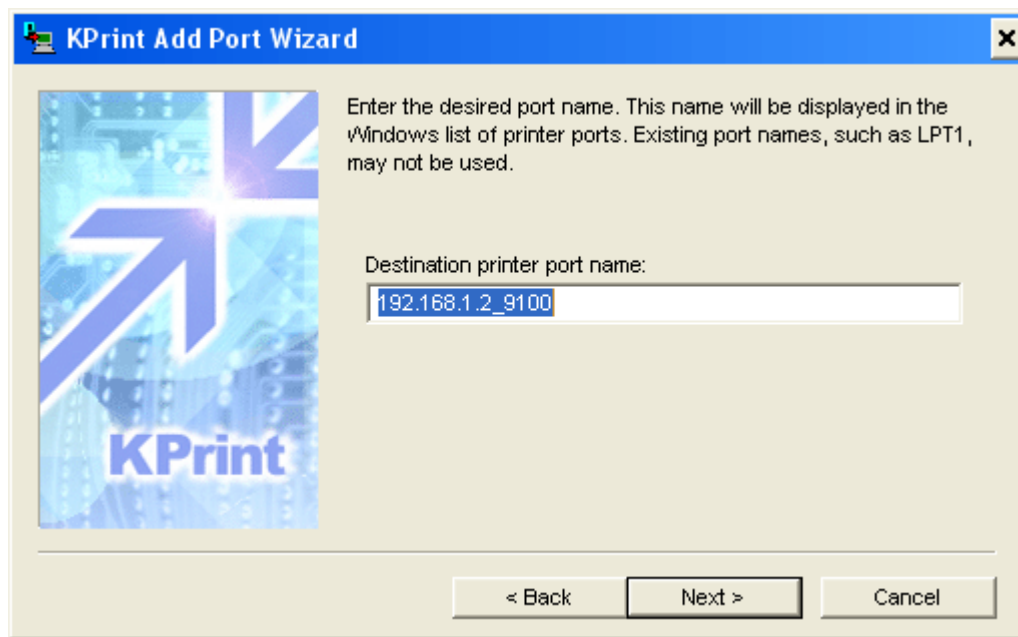


Figure 3. Destination Printer Port Name

5. Change the port name if desired. The default name given as the '*IP address_9100*'.
6. Click **Next**. Confirm the configuration.
7. Click **Finish**. The TCP/IP port is created in Windows and KPrint quits automatically.
8. Proceed to [Installing the Printer in Windows 98/Me](#).

Installing the Printer in Windows 98/Me

After you have successfully created a KPrint port in Windows, you are ready to point the printer driver to print to the port. Before proceeding, make sure that:

- The IB-23 is installed in the printer properly and the printer is powered up. To install the interface card, see [Installing the IB-23 Network Card](#).
 - The appropriate printer driver has been installed. To install the printer driver, see [Installing the Printer Drivers](#).
 - The procedure for creating the KPrint port has been followed properly. Review [Creating a KPrint Port for TCP/IP Printing](#).
1. If you have not already done so, install the printer driver for the printer. For details, see [Installing the Printer Drivers](#).
 2. Select Windows **Start**, **Settings**, and **Printers**.
 3. In the **Printers** folder, right click the printer driver that will be used to print to the TCP/IP port and select **Properties**.
 4. Click the **Details** tab. Click the pull-down menu for **Print to the following port** and select the TCP/IP port you have created above.
 5. Click **OK**.

To print from an application, select the printer driver in the application's **Print** menu. The printer driver allows you to fully utilize the software and hardware features of the printer.

Windows Printing: NetBEUI

This section explains how to install the IB-23 in the Windows NetBEUI environment.

The IB-23 supports *master-browsing* in Windows **Network Neighborhood**. Once the IB-23 is physically installed in the printer and connected to the network, the IB-23 will create a Windows workgroup called *KM-NetPrinters* in Network Neighborhood, or it will join in this workgroup if it already exists.

Note: In order to utilize NetBEUI printing, your PC must be configured with the NetBEUI protocol and the Client for Microsoft Networks service under Network Properties. See [Setting Up the PC for NetBEUI](#) below. For Windows XP, you must install the NetBEUI protocol from the Windows XP installation CD-ROM.

This section also covers the following topics:

- [Setting Up the PC for NetBEUI](#)
 - [Setting Up NetBEUI Printing](#)
 - [Configuring NetBEUI](#)
-

Setting Up the PC for NetBEUI

To configure your Windows PC for NetBEUI printing, verify that all of the following Windows protocols and services are installed on your PC:

- **Client for Microsoft Networks** service
- **NetBEUI** protocol
- **File and printer sharing for Microsoft Networks** service

To verify, proceed as follows:

1. In Windows 98/Me, select **Start, Settings, and Control Panel**; and double click **Network**.

In Windows NT 4.0, select **Start, Settings, Control Panel, Network, and Protocols**.

In Windows 2000, select **Start, Settings, Network and Dial-up Connections, Local Area Connection, and Properties**.

2. If you have added a protocol or service, restart the PC.

Proceed to the following section to configure NetBEUI printing.

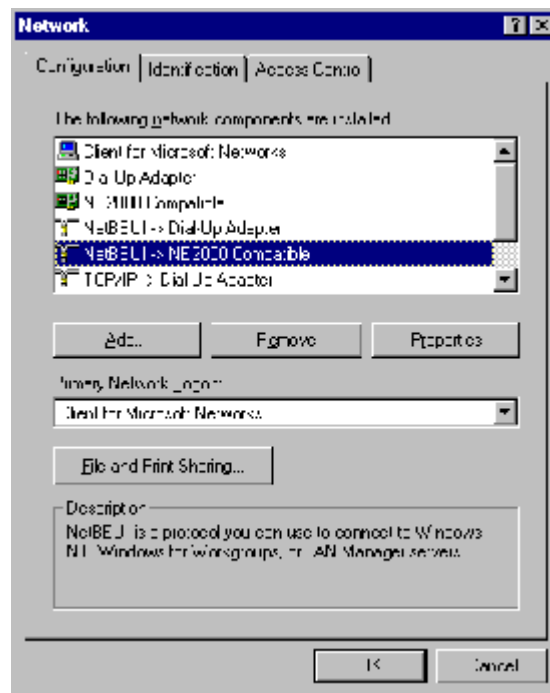


Figure 1. Verifying the NetBEUI Installation

- If any of the above are missing, click **Add** to install the protocol or service. You will have to have the Microsoft Windows installation CD.

Setting Up NetBEUI Printing

Once your PC has been configured to support the NetBEUI protocol, you are ready to connect the PC to the printer. This is done by installing the printer driver for the NetBEUI printer in the manner described below.

1. Double click **Network Neighborhood** (or **My Network Places**) on the Windows desktop.
2. Double click **Entire Network**.

You will find computers and workgroups that are available on the network in this window. The printer workgroup, *KM-NetPrinters*, which contains the IB-23 is also seen in this window.

- 'KM-NetPrinters' is the default workgroup name for the IB-23. Unless the workgroup name is changed, all IB-23 on the network will appear in the KM-NetPrinters workgroup. If you want to change the workgroup to which an IB-23 belongs, refer to [Configuring NetBEUI](#).

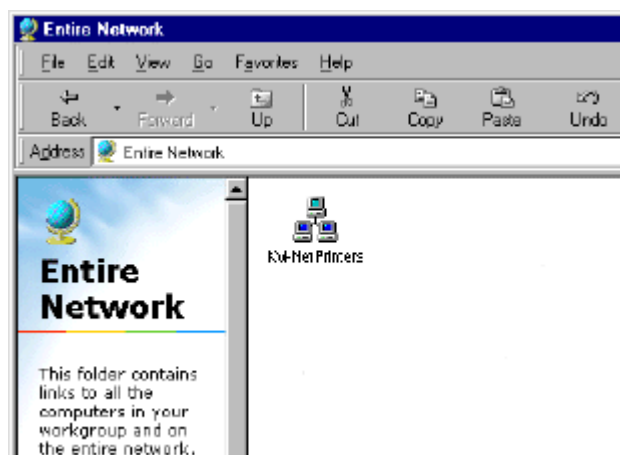


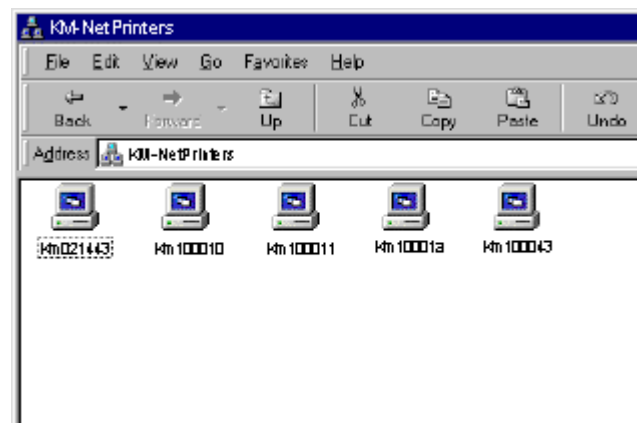
Figure 2. Printer Workgroup Created in Entire Network

3. Double click the KM-NetPrinters workgroup.

You will find the IB-23 running the NetBEUI protocol.

Format for the default NetBEUI printer name is the last six letters of its MAC address prefixed by 'Km.' If several printers are displayed, you may identify your IB-23 that you want to configure by its MAC address (labeled on the back of the network interface card).

- For example, if the MAC address of your IB-23 is '00:c0:ee:10:00:0d,' the default NetBEUI printer name is 'Km10000d.'
- To rename the printer to a more user friendly name, refer to [Configuring NetBEUI](#).

**Figure 3. Contents of the Workgroup**

4. Double click the computer icon you want to configure in the KM-NetPrinters workgroup.

A printer icon for the IB-23 will be shown.

**Figure 4. Contents of a NetBEUI Printer**

5. To install the printer, right click on the printer icon and select **Install**.

This launches the Windows **Add Printer Wizard**. Complete the wizard as you are prompted to enter information. The IB-23 you have configured will be found in the Windows **Printers** folder (**Start**, **Settings**, and **Printers**).

Configuring NetBEUI

You can use a web browser to set up the printer name and workgroup name used by NetBEUI. For details, refer to the section on [Using a Web Browser to Manage the IB-23](#).

1. Launch a web browser.
2. In the address bar, enter the IP address assigned to the IB-23.
3. After the web browser displays the IB-23 COMMAND CENTER, click the **Advanced** tab.

4. In the left menu of the COMMAND CENTER, click **NetBEUI/NetBIOS**.

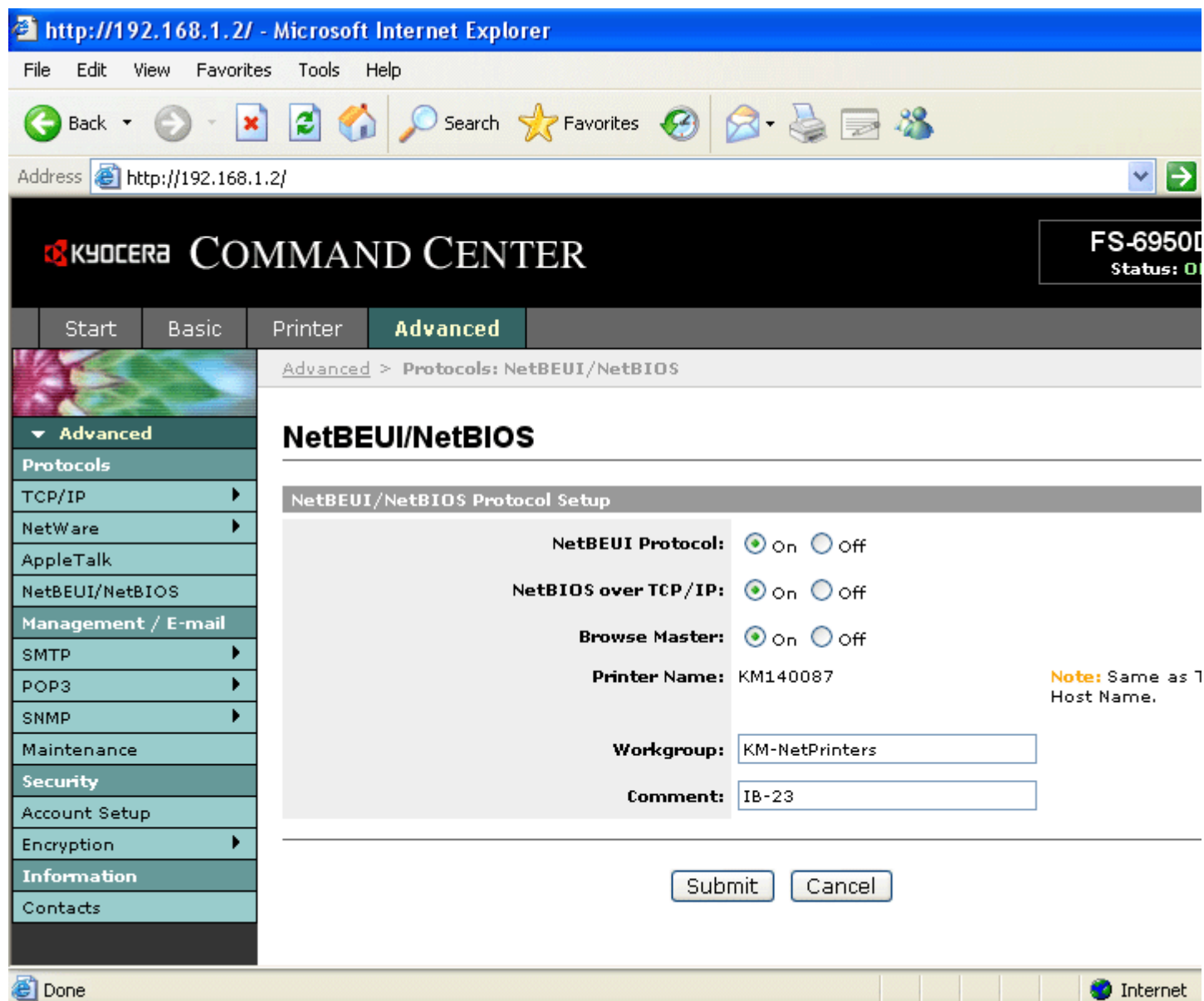


Figure 5. COMMAND CENTER NetBEUI/NetBIOS Settings Page

5. Complete each field. The fields are described below.

Item	Description
NetBEUI Protocol	Choose whether NetBEUI protocol is enabled (On) or disabled (Off).
NetBIOS over TCP/IP	Choose whether NetBIOS over TCP/IP is enabled (On) or disabled (Off).
Browse Master	When this option is selected, the print system changes to browse master, and a workgroup is created in My Network. When the option is not selected, the print system is added to an existing workgroup.
Printer Name	The printer and host names on the TCP/IP General tab (Protocols > TCP/IP > General) are interrelated. If you want to change the NetBEUI printer name, change the TCP/IP host name as well.
Workgroup	The printing workgroup is a workgroup shown in Entire Network in My Network. The default workgroup name is "KM-NetPrinters."
Comment	You can enter a comment as desired. This field can also be left blank.

6. Click **Submit**, and the settings are complete.

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E-mail Printing

The IB-23 offers a new function for e-mail printing. With this function, a print job can be e-mailed to a remote printer, such as over the Internet, using the standard print function in any Windows application. An IB-23 configured for e-mail printing connects to an e-mail server via POP3 and retrieves e-mailed print jobs.

Once the IB-23 is configured to retrieve e-mail, KPrint is used to create a port in Windows which directs print jobs to the printer via e-mail. After creation with KPrint, the port may be selected when adding a new printer with the Windows Add Printer wizard (Local printer is selected for ports created by KPrint). A common implementation is to configure a shared printer to send print jobs to a printer in a remote office via the e-mail port created by KPrint. Users can then easily connect to the shared printer using only the Windows Add Printer wizard and send print jobs to the remote office. This offers an attractive alternative to faxing.

E-mail printing is setup by following the steps below (in the order which follows):

- [Create an E-mail Address for the Printer](#)
- [Activate and Configure POP3](#)
- [Create the E-mail Port in Windows](#)
- [Connect the Printer to the E-mail Port](#)
- [Printing Jobs via the E-mail Port](#)

E-mail may also be sent directly to the printer from within an e-mail application (rather than by printing).

- [Sending E-mail Directly from an E-mail Application](#)

Create an E-mail Address for the Printer

The following information must be configured to allow the printer to retrieve and print e-mail print jobs from the POP3 mail server.

- E-mail address for the printer (e.g. *fs6950@widgets.com*)
- POP3 mail server address (e.g. *130.21.222.56*)
- Account name to login to the mail server (e.g. *widgets.com/pusr/fs6950*)
- Password to login to the mail server

Activate and Configure POP3

By default, POP3 protocol is disabled on the IB-23. Use a web browser to configure various protocol settings on the IB-23's internal webpage.

1. Launch a web browser.
2. In the address bar, enter the IP address assigned to the IB-23.
3. After the browser displays the IB-23 COMMAND CENTER, click the **Advanced** tab.
4. In the left menu of the COMMAND CENTER, click **POP3 > General**.

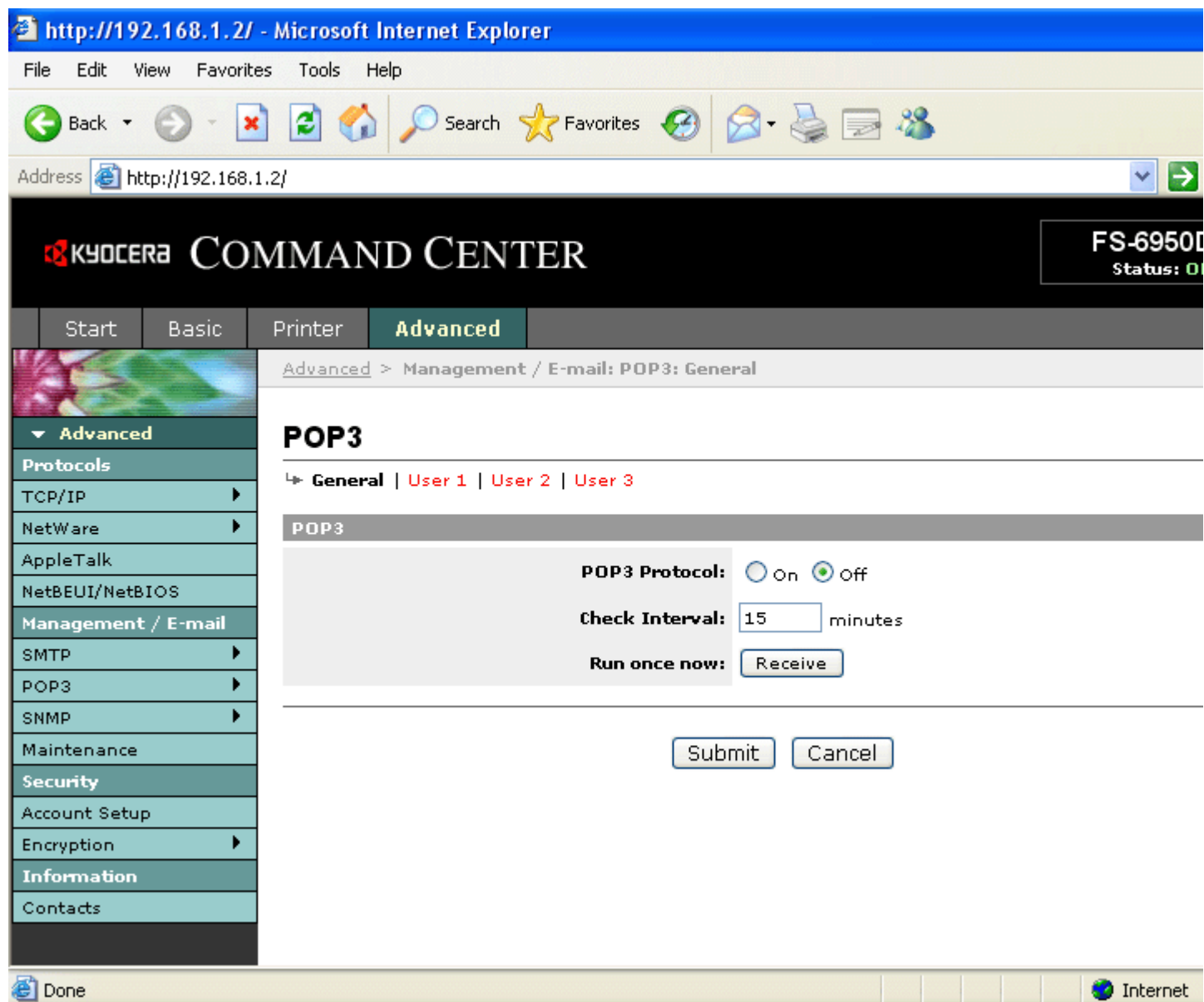


Figure 1. IB-23 POP3 Configuration

5. Complete the General settings as follows.

POP3 Protocol	Click On.
Check Interval	Enter the interval in minutes that the IB-23 will check the mail server for e-mail. The default is 15 minutes. The minimum interval is 3 minutes.

6. Click **User 1** and complete the entry as follows.

User 1	Click On.
E-mail address	Enter the e-mail address for the printer, e.g. <i>fs6950@widgets.com</i> .
POP3 Server Name	Enter the IP address or the host name for the mail server.
POP3 Port Number	Enter the POP port number, normally <i>110</i> , for the mail server.

Login User Name	Enter the account name to login to the POP3 server, e.g. widgets.com/pusr/fs6950. (Some mail servers, such as Exchange, use the format domain_name/user_account/mailbox for the POP3 login name).	
Login Password	Enter the password to login to the POP3 server.	
Use APOP	Click On if the mail server supports the APOP protocol.	
Delete e-mail After Retrieval	Determine whether to delete e-mail from the server after it is printed.	
E-mail Size Limit	Specify the maximum size for e-mail that the printer can retrieve. E-mails greater than this limit are left unretrieved on the server. The mail administrator will need to delete the unretrieved mail from the server.	
Filter Setting	You can specify up to four strings for filtering e-mails:	
	S:string	Subject:
	T:string	To:
	C:string	Cc:
	F:string	From:
		Match on any (OR)
	&	Match on all (AND)
	For example, to print only the e-mails with a subject of Service or Technical, specify: S:Service S:Technical	
Cover Page	On or Off printing a cover page with each e-mail print job.	

7. Use the same procedure to make entries for additional user profiles, if desired.
8. When all entries have been made, click **Submit**. The browser shows *The IB-23 is restarting* for several seconds and the POP3 protocol is activated for the IB-23.

Create the E-mail Port in Windows

Windows clients that want to send print jobs via e-mail use the KPrint utility to create the e-mail printer port.

If you have already installed KPrint in Windows:

1. Run the KPrint Add Port wizard by selecting Windows **Start>All Programs>Kyocera**, then click **KPrint Add Port**. Go to step 3 below.

If you have not installed KPrint:

Follow these steps to install KPrint.

1. Insert the IB-23 Library CD-ROM in the CD-ROM drive. The CD is played automatically, and the main menu is displayed.
2. Click **Install KPrint Software**.
3. Follow the wizard instructions to complete the installation. Run the KPrint Add Port wizard by selecting Windows **Start>All Programs>Kyocera**, then click **KPrint Add Port**.

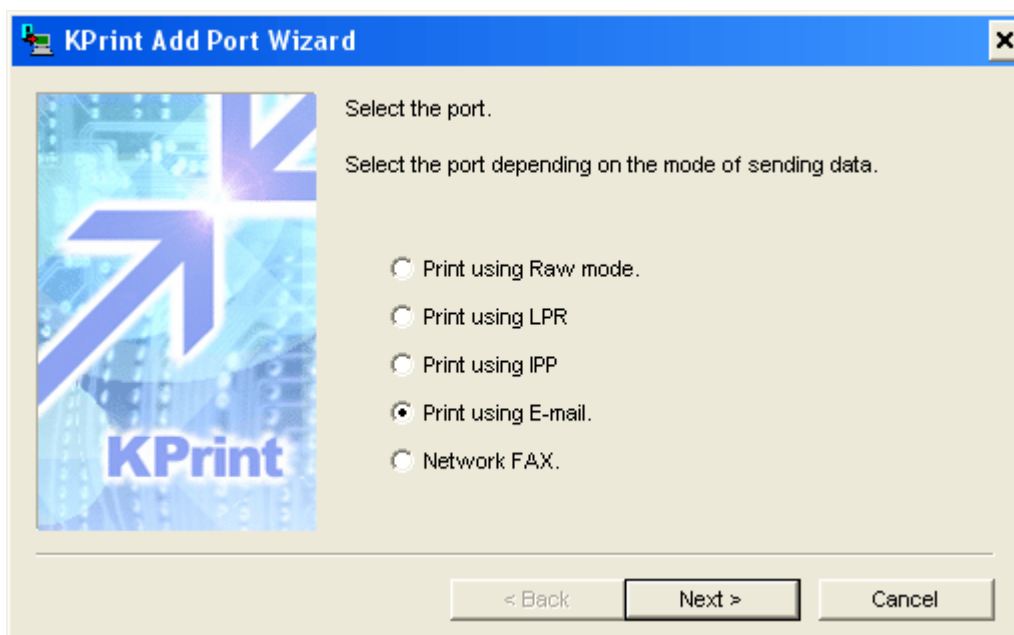


Figure 2. Selecting E-Mail as the Print Method

4. Select **Print using E-mail** and click **Next**.
5. A description of the e-mail printing function is displayed. Click **Next**. A screen for setting the sender information is displayed.

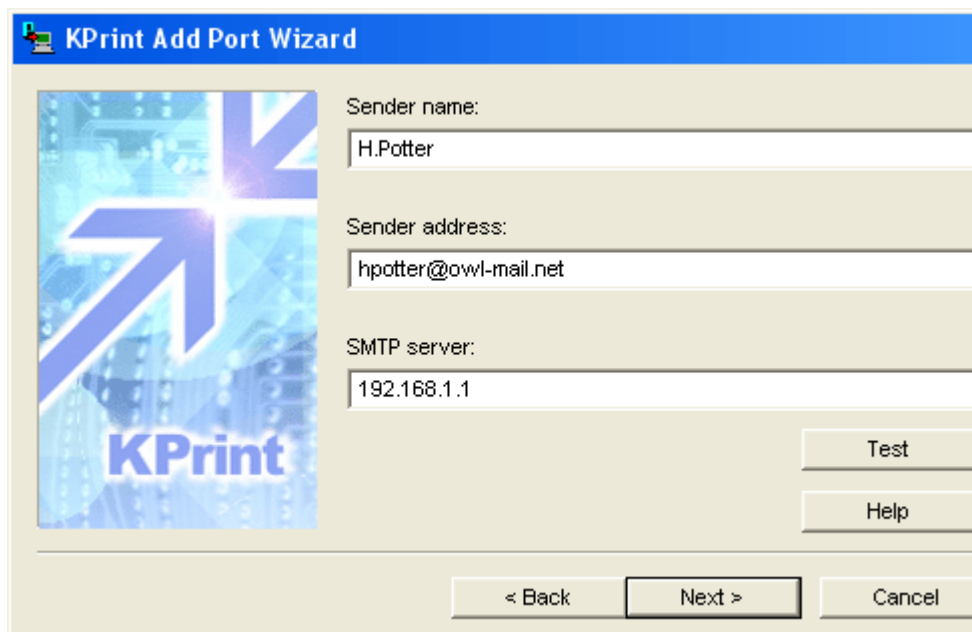
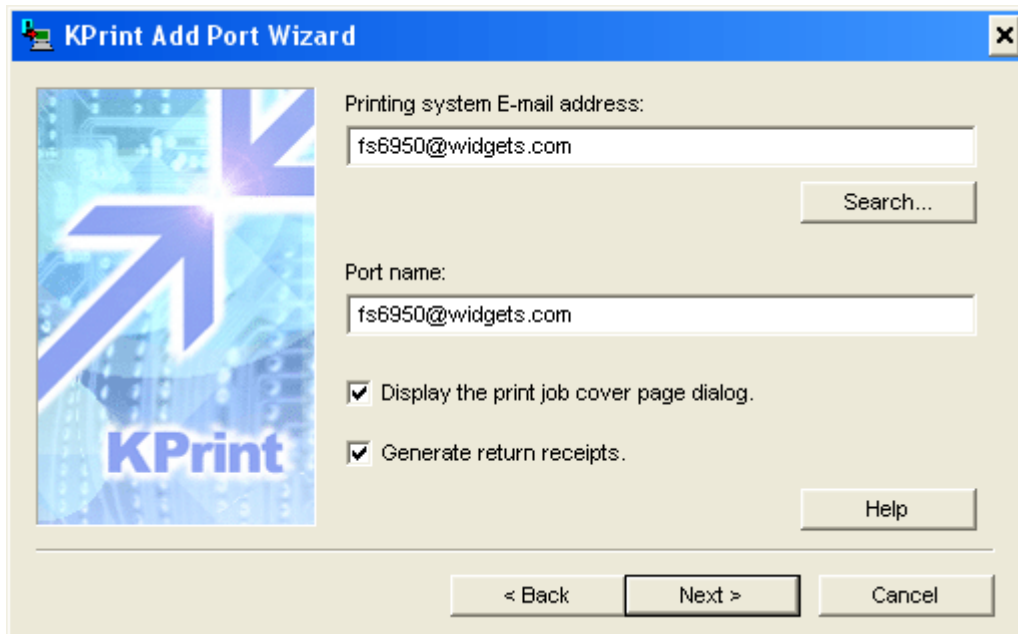


Figure 3. Entering Sender Name and Address

6. Complete the following information...

Sender Name	Enter the name of the person that will be sending print jobs. The Sender Name will appear on the print job cover page.
Sender Address	Enter the e-mail address of the person that will be sending print jobs.
SMTP Server	Enter the IP address or the host name for the SMTP Server . You can verify access to the SMTP Server by clicking on the Test button.

...and click **Next**.



The image shows the 'KPrint Add Port Wizard' dialog box. It has a blue title bar with the text 'KPrint Add Port Wizard' and a close button. On the left is a graphic with a large blue arrow pointing up and to the right, and the word 'KPrint' in blue. The main area is light beige and contains the following fields and controls:

- Printing system E-mail address:** A text box containing 'fs6950@widgets.com' and a 'Search...' button to its right.
- Port name:** A text box containing 'fs6950@widgets.com'.
- Two checked checkboxes:
 - ☒ Display the print job cover page dialog.
 - ☒ Generate return receipts.
- A 'Help' button.
- Navigation buttons at the bottom: '< Back', 'Next >', and 'Cancel'.

Figure 4. Return to Address and Port Name

7. Complete the following information...

Printing System E-mail Address	The Printing System E-mail Address may be obtained by searching the network as described in the steps above or can be typed in directly.
Port Name	By default, the Printing System E-mail Address is automatically entered, but it may be modified as desired. The Port Name is displayed in the Windows port list.
Cover Page	Select the Display the print job cover page dialog checkbox to enable the cover page dialog. ! Note: The cover page dialog also allows changing the destination printer or sending the job to multiple printers. ! Note: If the cover page has been disabled on the POP3 configuration page , then a cover page will not be printed, even when the KPrint cover page dialog is displayed.
Return Receipt	Selecting the Generate return receipts checkbox causes the printer to send e-mail confirmation for every print job. The SMTP protocol for the IB-23 must be enabled in order for this function to work. To activate SMTP, follow the procedure for configuring SMTP .

...and click **Next**.

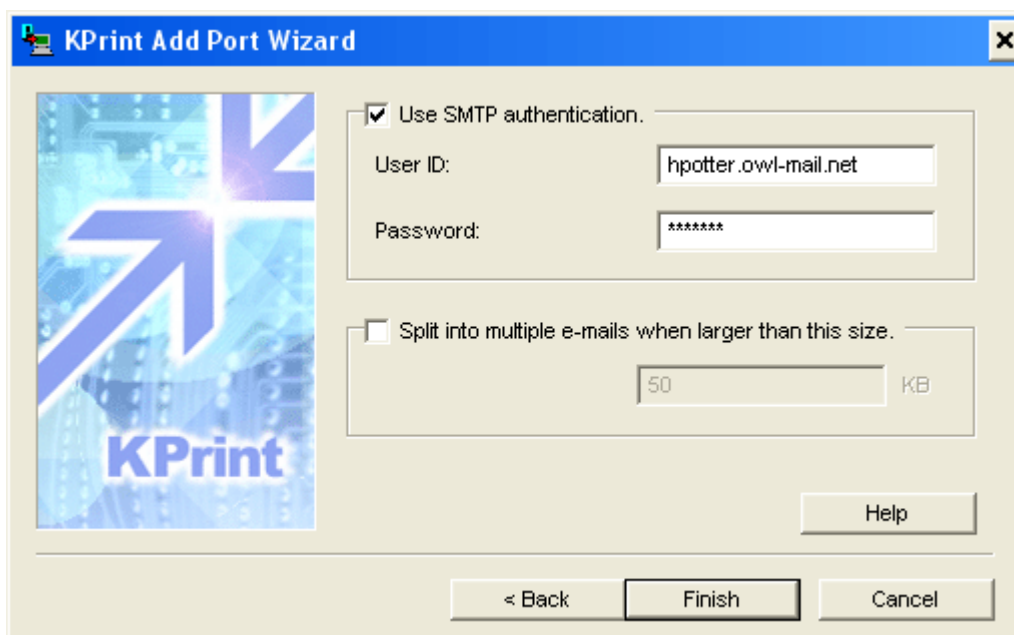


Figure 5. SMTP Authentication

8. Complete the following information...

SMTP Authentication	If the mail server requires SMTP Authentication for sending email, select Use SMTP Authentication and enter an authorized user name and password.
Split into multiple e-mails when larger than this value	Splitting into multiple e-mails may be necessary on some systems which limit the size of individual e-mails.

...and click **Finish** to create the e-mail port.

9. Click **OK** when the confirmation screen is displayed.

Connect the Printer to the E-mail Port

In the following section, it is assumed that you have already installed the printer driver for the IB-23 printer and the printer is already created in the Windows **Printers and Faxes** folder from the **Start** menu. If you have not done so, install the printer driver from the CD-ROM supplied with the printer. For details, refer to [Installing the Printer Drivers](#).

To connect the printer to the e-mail port:

1. Open the Windows **Printers and Faxes** folder from the **Start** menu.

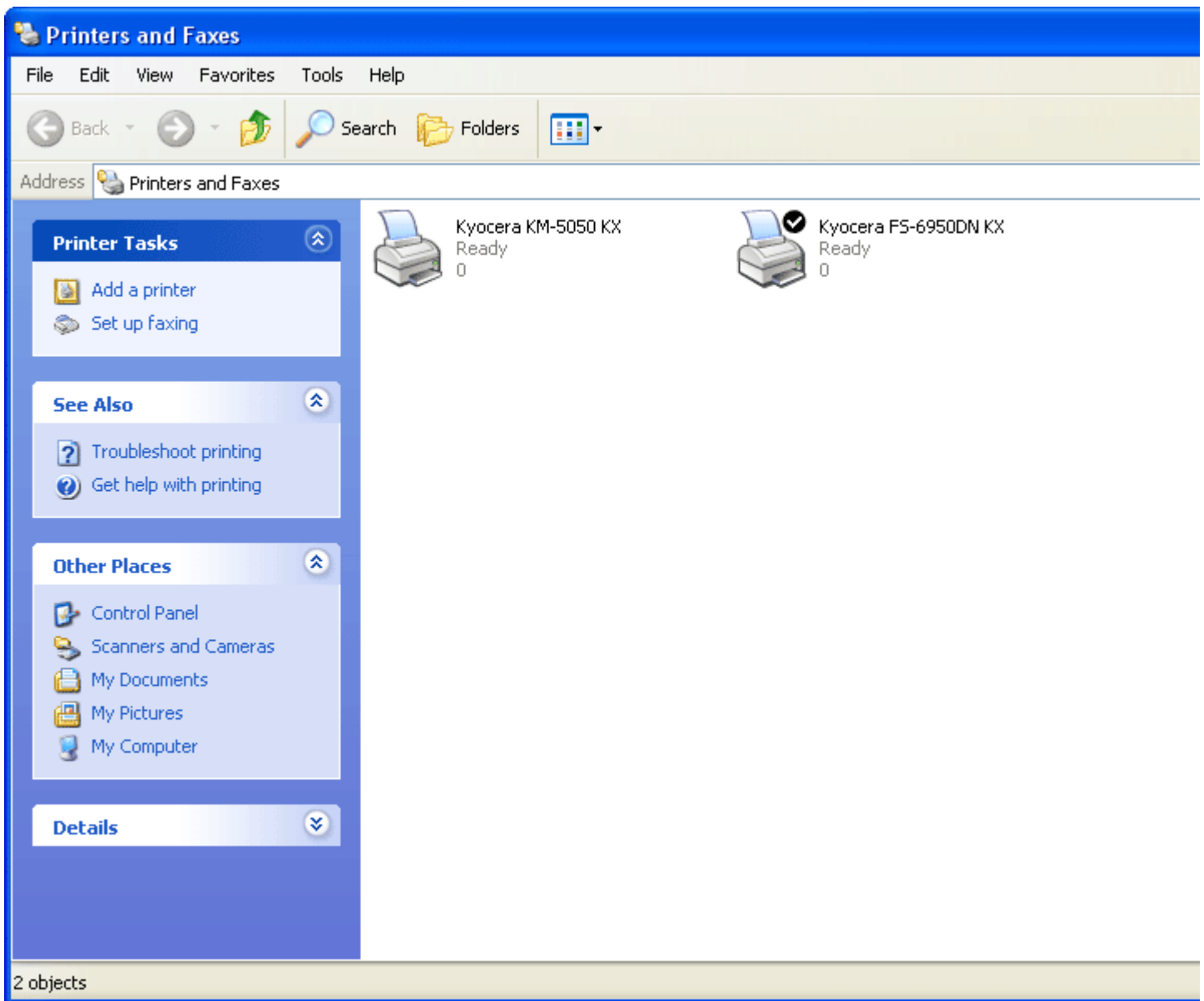


Figure 6. Windows Printers folder

2. Right click the printer and select **Properties** from the pull down menu. The **Properties** dialog will open. In the **Port** tab, select the e-mail port. An e-mail port can be identified by the label **[KPrint E-Mail Port]**.

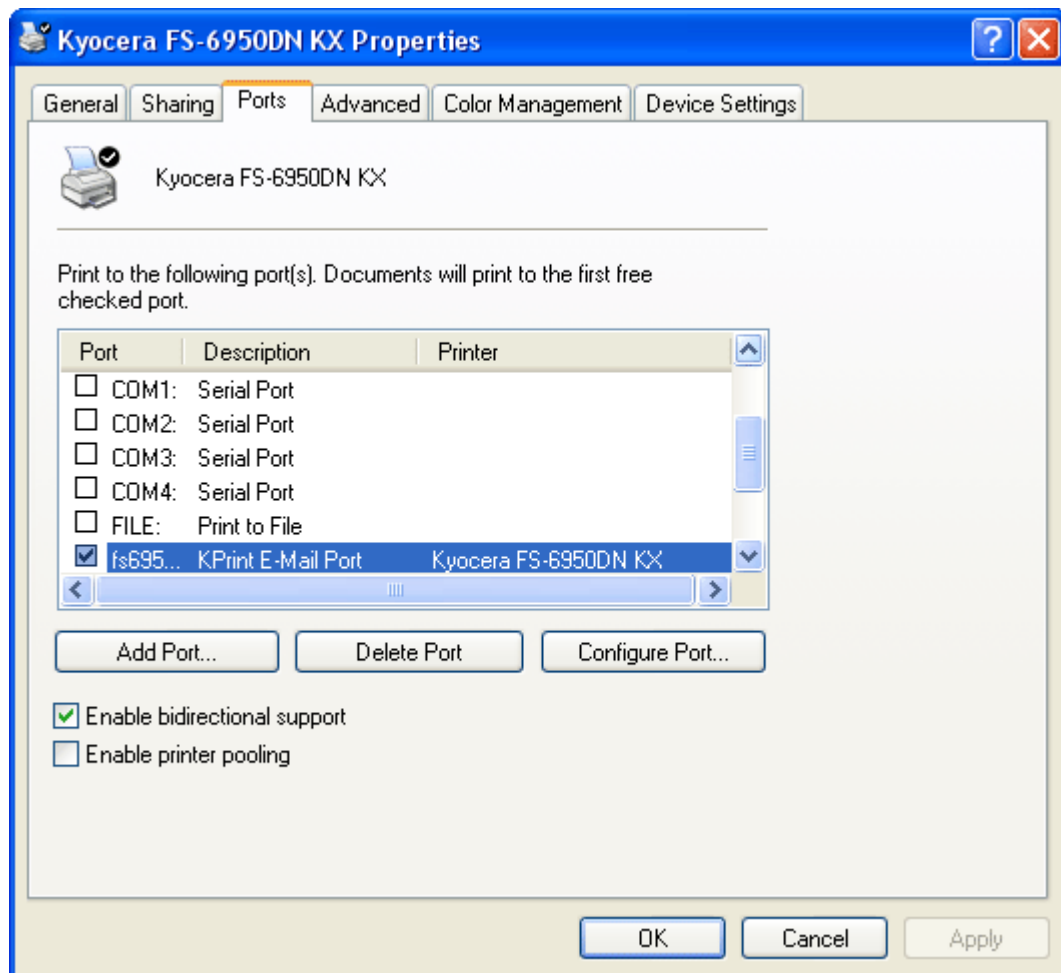


Figure 7. Printer Properties dialog

3. Click on **Configure Port** to open the KPrint Port configuration dialog.

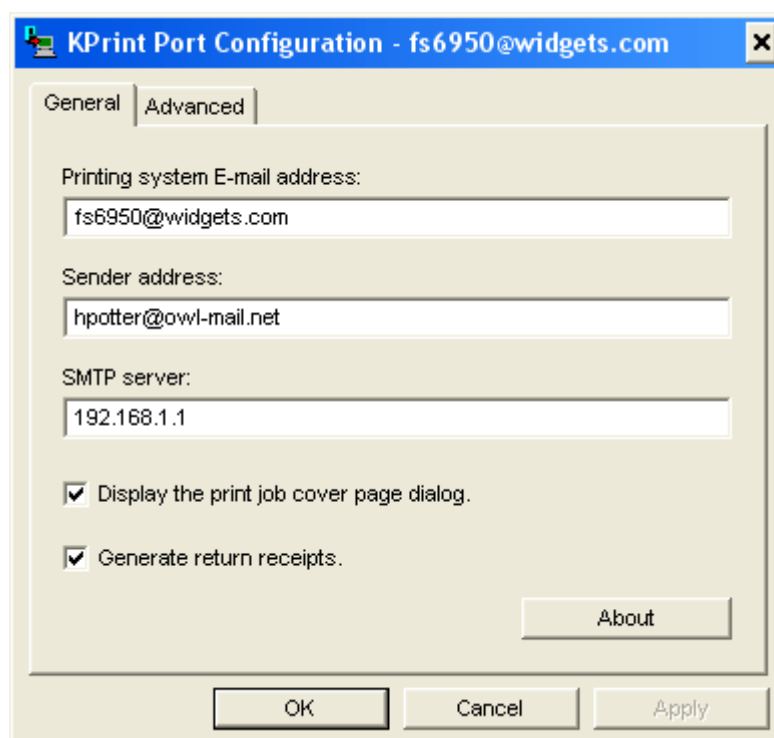


Figure 8. Port Configuration

4. Confirm the **Printing System E-mail Address**, the **Sender Address**, the **SMTP Server**, and the **Cover Page** and **Return Receipts** check boxes.
5. Click on the **Advanced** tab.

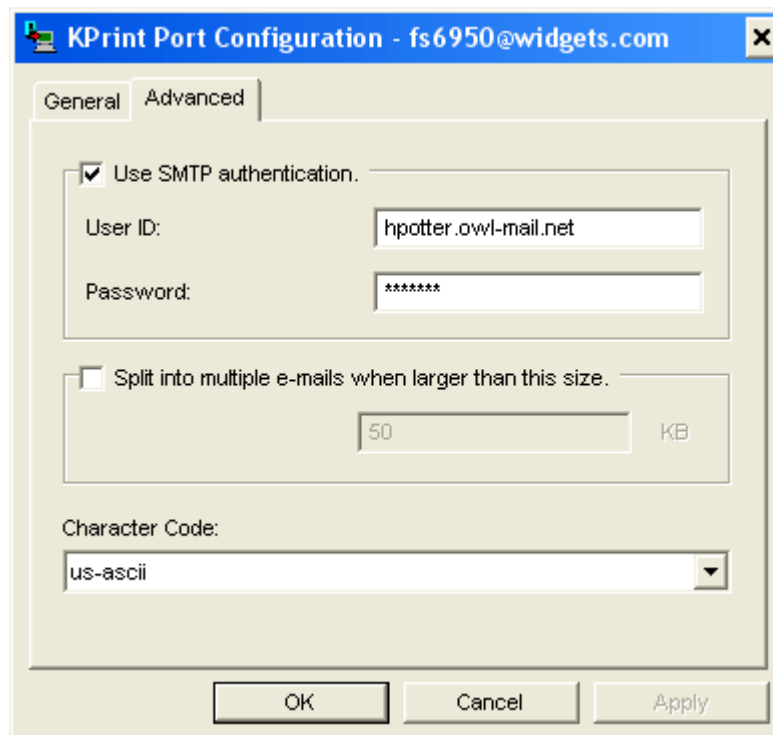


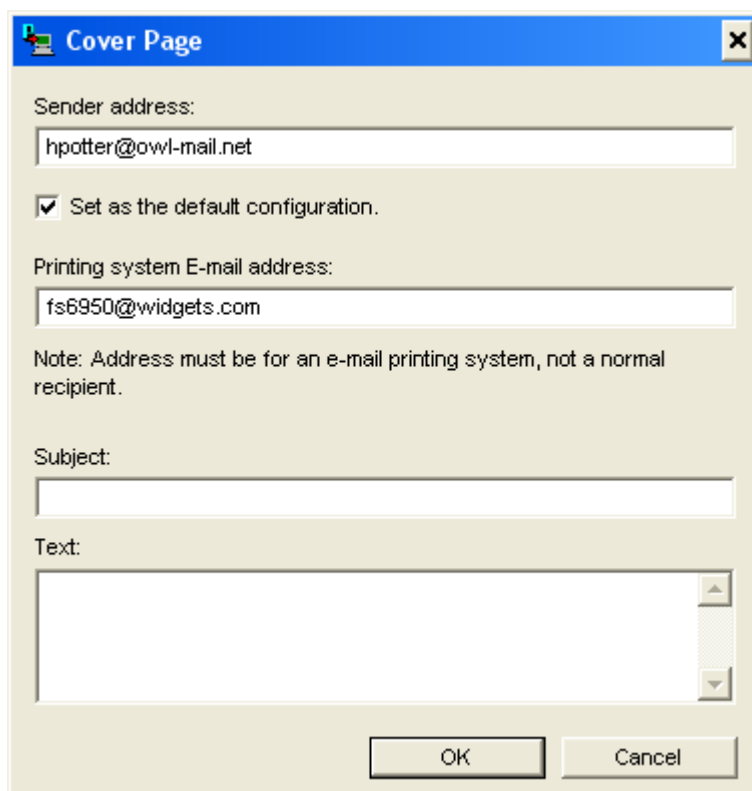
Figure 9. Advanced Port Configuration

6. Adjust the **SMTP Authentication**, **Split into multiple e-mails when larger than this value**, and **Character Code** settings as necessary. Click **OK**. The printer is connected to the e-mail port and ready to accept print jobs.

Printing Jobs via the E-mail Port

To send an e-mail print job, simply print as you normally would, i.e. File, Print.

If **Display print job cover page dialog** is checked for this KPrint port (see [Figure 8](#)), then the Cover Page dialog will appear when creating a print job.



The image shows a Windows-style dialog box titled "Cover Page". It contains the following fields and options:

- Sender address:** A text box containing "hpotter@owl-mail.net".
- Set as the default configuration:** A checked checkbox.
- Printing system E-mail address:** A text box containing "fs6950@widgets.com".
- Note:** Address must be for an e-mail printing system, not a normal recipient.
- Subject:** An empty text box.
- Text:** A large empty text area with a vertical scrollbar on the right.
- Buttons:** "OK" and "Cancel" buttons at the bottom right.

Figure 10. Cover Page Dialog

1. Complete the following information:

Sender Address	An error notification is delivered to the Sender Address when an e-mail print job has failed. The Sender Address is also printed on the cover page.
Save the configuration changed	If Set as default configuration is checked, then the changes to the Cover Page dialog will be saved and used for subsequent print jobs.
Printing System E-mail Address	The Printing System E-mail Address may be modified to send the print job to a different printer. Enter multiple Printing System E-mail Addresses separated by a semicolon(;) to send the print job to multiple printers.
Subject and Text	Enter the Subject and Text that will be printed on the cover page.

! Note: A cover page will be printed only if **Cover Page** is **Enabled** on the POP3 page.

2. Click **OK**. The job will be posted to the mail server and retrieved by the IB-23 at the interval defined during POP3 setup. (See [Check Interval](#)). If Generate return receipts is on (See [Figure 8](#)), the printer will send e-mail confirmation for every print job.

```
Date : Fri 23 Aug 2002 17:21:01
From : Harry Potter hpotter@owl-mail.net
To : fs9100@widgets.com; km6330@widgets.com
Subject : Quidditch Rules
```

```
=====
Please Deliver to Harry Potter, Griffindor House
```

```
-----
file name:"~KPN021.PRN" type:application/octet-stream  BASE64
-----
```

Figure 11. Sample Cover Page

Sending E-mail Directly from an E-mail Application

You can directly send e-mail to the printer e-mail address and print its message and attachments. The file types allowed for attachments are plain text (.txt), printable (.prn), PostScript (.ps), and PDF (.pdf). Attachments of other file types are ignored and discarded.

Note:

If the printer you are using does not support KPDLE emulation, you cannot print PostScript (.ps) or PDF (.pdf) files.

Note that sending e-mail directly from an e-mail application does not require creating an e-mail port with KPrint.

To send an e-mail to the printer e-mail address:

1. Enter the printer e-mail address (e.g. *fs6950@widgets.com*) as the recipient (**To:**).
2. Enter the subject and the message that will appear on the cover page. A cover page will be printed only if **Cover Page** is **Enabled** on the POP3 page (see [Figure 1](#)).
3. Attach the file to print as an attachment (must be .txt, .ps, .prn, or .pdf).
4. Click Send.

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NetWare Printing

This page explains about the steps to use a web browser to set up NetWare server mode on the IB-23. The instructions are designed assuming that the NetWare print queue already exists. To create the print queue, use a NetWare utility such as NWAdmin.

- [Accessing the IB-23 with a Web Browser](#)
 - [Setting Up Print Server Mode](#)
 - [Setting Up Remote Printer Mode](#)
 - [Sending Jobs to the Print Queue](#)
-

Accessing the IB-23 with a Web Browser

You can use a web browser to configure the parameters used in NetWare server mode. For details, refer to the section on [Using a Web Browser to Manage the IB-23](#).

1. Launch a web browser.
2. In the address bar, enter the IP address assigned to the IB-23.
3. After the web browser displays the IB-23 COMMAND CENTER, click the **Advanced** tab.
4. In the left menu of the COMMAND CENTER, click **NetWare > General**.

http://192.168.1.2/ - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail New Window

Address http://192.168.1.2/

KYOCERA COMMAND CENTER FS-6950 Status: OK

Start Basic Printer **Advanced**

Advanced > Protocols: NetWare: General

NetWare

General | Bindery Services

Basic

NetWare Protocol: ☒ On ☐ Off

Bindery Mode: ☒ On ☐ Off

Frame Type: Auto

NDS Tree:

NDS Context:

Print Server Mode

Print Server Mode: ☒ On ☐ Off

Print Server Name: KM140087

Queue Polling Interval: 4 seconds

Figure 1. COMMAND CENTER Basic NetWare Settings Page

5. Complete each field for the NetWare mode you will use. The parameters that apply to both print server mode and remote printer mode are as follows.

NetWare Protocol	Choose whether NetWare protocol is enabled (On) or disabled (Off).
Bindery Mode	Choose whether bindery mode is enabled (On) or disabled (Off).
Frame Type	Choose from four supported four frame types: 802.2, SNAP, ETHERNET-II, and 802.3. You can also choose auto-detect.
NDS Tree	Designate the name of the NDS tree for the connection.
NDS Context	Designate the NDS context for connections in print server mode.

6. Click Submit, when the settings are complete.

Setting Up Print Server Mode

By using the IB-23 in print server mode for operation as a print server makes the IB-23 constantly monitor for jobs that are

ready in the print queue by polling. In this mode, a NetWare print server can service queues on up to eight file servers. To operate the IB-23 in print server mode, access the basic settings page for NetWare from the COMMAND CENTER and select **Print Server Mode**. No other computer is required as a print server. This mode uses a NetWare logon slot (that is, one user license).

The setting parameters used in print server mode are as follows.

Print Server Mode	Choose whether print server mode is enabled (On) or disabled (Off).
Print Server Name	Shows the print server name.
Queue Polling Interval	The polling interval can be designated.
Banner Page Requests	Banner printing is an option in print server mode.
Password (Optional)	A password can be designated as desired. Login requires that the password here matches the print server password set by the NetWare utility.

Setting Up Remote Printer Mode

In remote printer mode, the IB-23 connects to an active print server on the network. This print server starts PSERVER.NLM on the NetWare file server. Remote printer mode does not require a NetWare logon slot and does not conduct queue polling. However, print jobs are not received as efficiently in remote printer mode. To operate the IB-23 in remote printer mode, access NetWare: General from the COMMAND CENTER and select Remote Printer Mode.

The setting parameters used in remote printer mode are as follows.

Remote Printer Mode	Choose whether remote printer mode is used (On) or not (Off).
Remote Printer Name	Shows the print server name.
Job Timeout	Set the timeout to complete jobs in remote printer mode in a range of 4-255 seconds.

Sending Jobs to the Print Queue

The created print queue is selected as the destination printer port of the printer driver. If no printer driver is installed, follow these steps to install one.

1. On the Windows desktop, double-click on **My Network Places**.
2. Double-click on **Entire Network**.
3. Double-click on the **Novell Directory Services** folder to open it.
4. Proceed to the context that created the queue and right-click on the printer to view the drop down list.
5. In this menu, click **Install**.

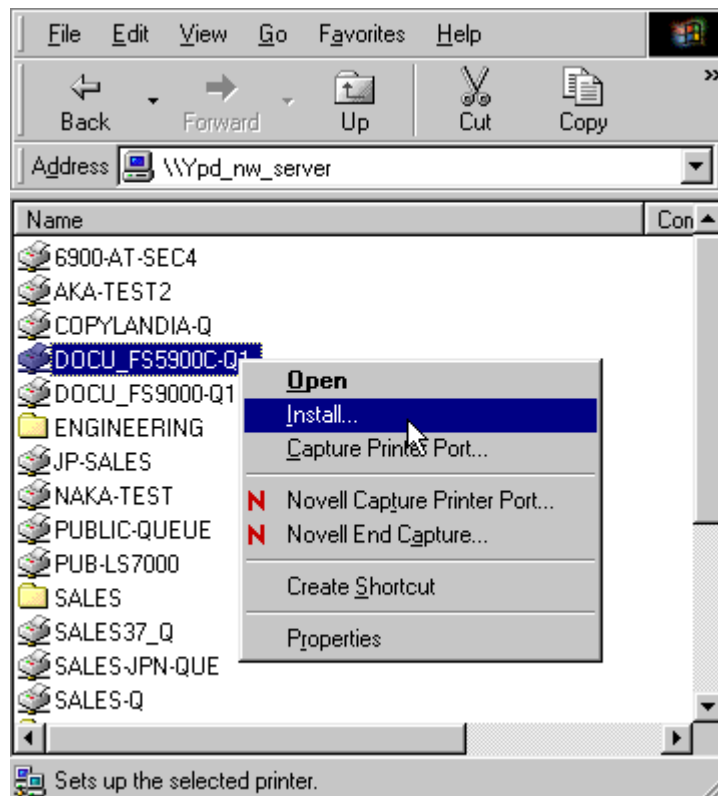


Figure 2. Installing Printer Drivers

6. After the Windows **Add Printer Wizard** is displayed, follow the instructions to install the printer driver.
7. After the printer driver is installed, click **Finish**.

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Macintosh Printing

This page explains about the steps to set up the IB-23 for use in a Macintosh environment. The IB-23 supports Mac OS 8.x and 10.x and is compatible with LaserWriter printer driver version 8.x.

- [Setting KPD L \(PostScript\) Emulation](#)
 - [Activating AppleTalk](#)
 - [Configuring Printers](#)
-

Setting KPD L (PostScript) Emulation

Macintosh environments use the PostScript language, so printers must be set up for KPD L emulation. KPD L is standard on most Kyocera printers, but some models require additional memory (available as an option), and a few do not support KPD L. Models that do not support KPD L cannot be used for Macintosh printing. For details, contact your dealer.

Printers with KPD L as a standard feature either emulate KPD L or auto-detect KPD L by default. If the emulation setting is not KPD L or Auto-KPD L, switch the emulation mode on the printer panel.

Activating AppleTalk

You can use a web browser to set up the printer name and zone name used by AppleTalk. For details, refer to the section on [Using a Web Browser to Manage the IB-23](#).

1. Launch a web browser.
2. In the address bar, enter the IP address assigned to the IB-23.
3. After the web browser displays the IB-23 COMMAND CENTER, click the **Advanced** tab.
4. In the left menu of the COMMAND CENTER, click AppleTalk.

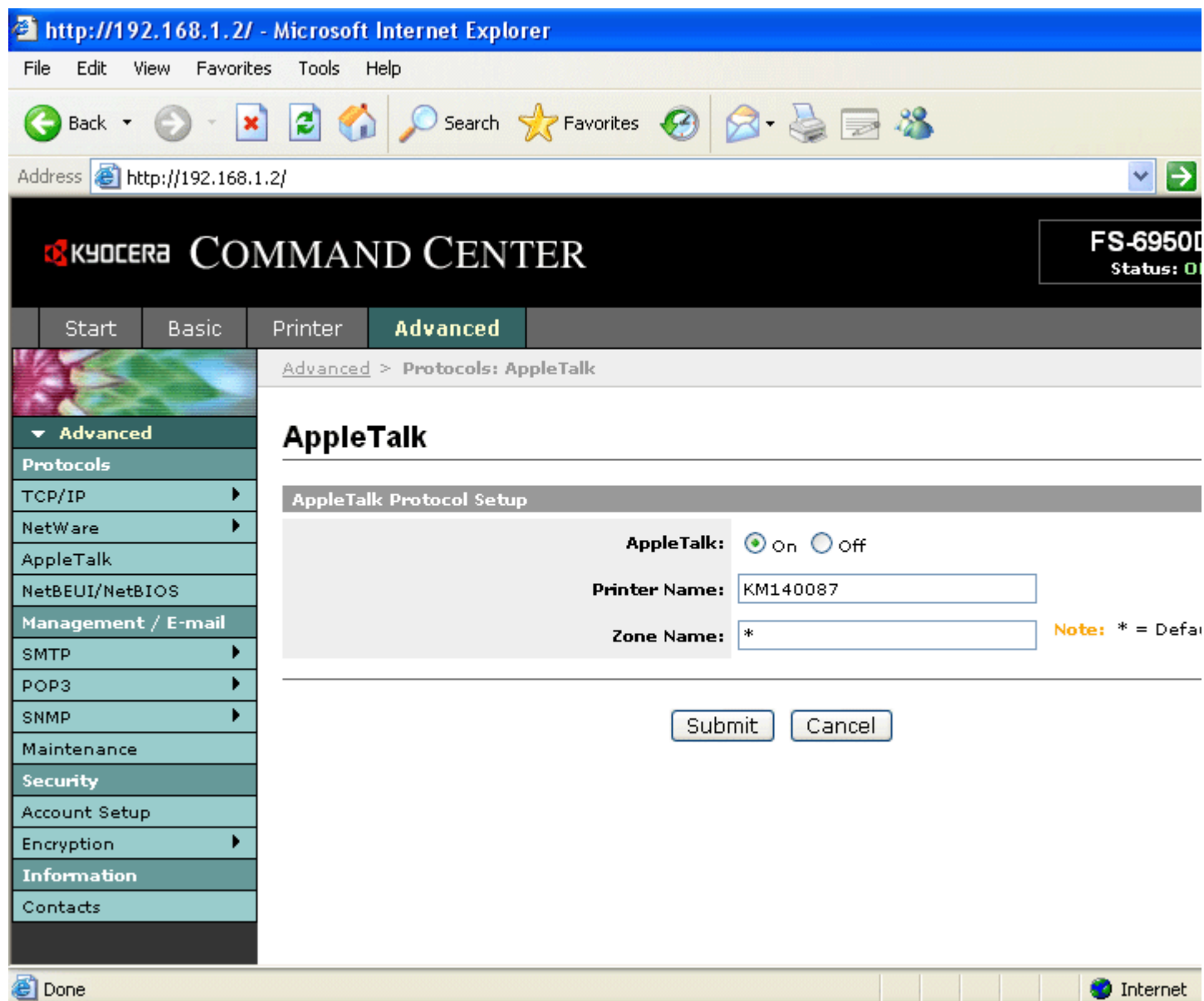


Figure 1. COMMAND CENTER AppleTalk Settings Page

5. Complete each field. The fields are described below.

AppleTalk	Choose whether AppleTalk protocol is enabled (On) or disabled (Off).
Printer Name	Identifies printers in the AppleTalk network.
Zone Name	Identifies the AppleTalk zone (network). An asterisk (*) here indicates the default zone.

6. Click **Submit**, when the settings are complete.

Configuring Printers

To configure a printer in a Macintosh environment, in the method described above, associate the standard Mac OS LaserWriter 8 driver for the printer installed on an AppleTalk network with the corresponding PPD file, which includes the functions and information for that particular printer.

- Follow these steps in Mac OS 8.

1. Insert the CD-ROM bundled with the printer in the CD drive.
2. Double-click on FS-Series Installer. The PPD file will be copied to the Printer Descriptions folder in the Mac OS Extensions folder.
3. From the desktop icon, select Chooser and double-click to open it.

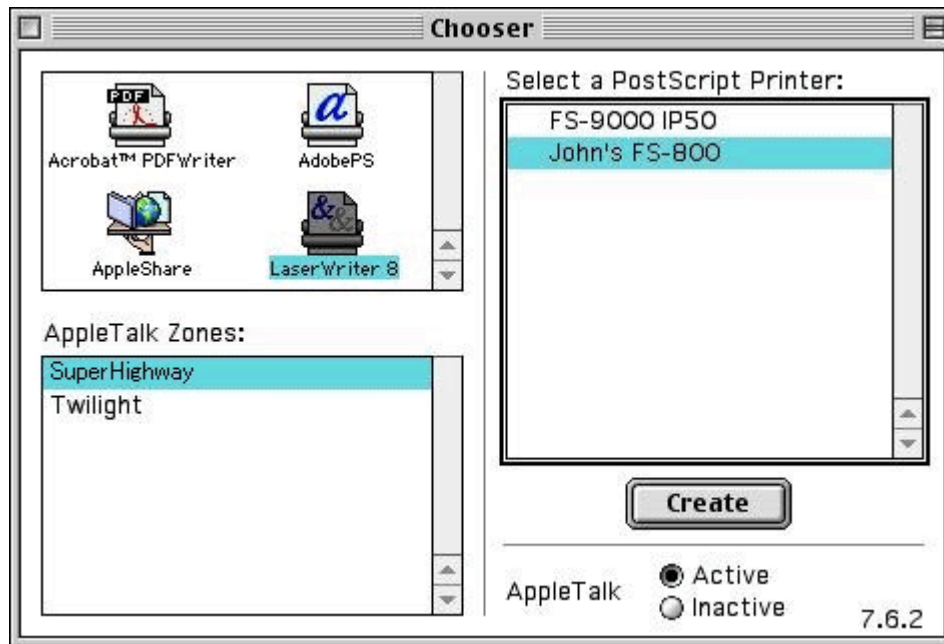


Figure 2. Chooser Settings

4. Click the LaserWriter 8 driver.
5. Select the printer's AppleTalk zone. The AppleTalk printers of the zone are listed in the window at right.
6. Click the installed printer.
7. Click **Create**. The PPD file is selected automatically, and a settings window for options opens.
8. Complete the settings for printer functions and options.
9. Click OK when you are finished.

A desktop printer will be created.

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UNIX Printing

The following sections describe configuration and printing for various UNIX systems.

- [Configuring the hosts File](#)
 - [Solaris 2.6 Setup](#)
 - [Solaris 2.3x - 2.5x Setup](#)
 - [HP-UX 9.x and 10.x Setup](#)
 - [IBM AIX 4.x.x Setup](#)
 - [BSD UNIX Setup](#)
 - [Printing, Canceling a Job, and Checking Status](#)
 - [ftp \(File Transfer Protocol\) Printing](#)
-

Configuring the *hosts* File

An entry in the *hosts* file provides the name to IP address mapping which allows the use of the printer name rather than the IP address. If your network uses DNS for name resolution, then you may not need to edit the *hosts* file.

Use the following procedure to add the IB-23 name and IP address entry to the */etc/hosts* file.

1. Login as root.

```
# login root
```

2. Add the IB-23 IP address and host name to the */etc/hosts* file using an editor such as *vi*.

The following example shows entries in a *hosts* file for two servers and a printer with IP address 192.168.10.100 and host name *sales820ptr*.

```
192.168.10.98 sales1 #Sales Server 1
192.168.10.99 sales2 #Sales Server 2
192.168.10.100 sales820ptr #Kyocera Mita FS-2000D Printer
```

3. Using the *ping* command, confirm the name resolution.

```
# ping sales820ptr
```

If there is no response, try pinging the IP address to verify the network connection. If the IP address can be pinged but not the name, then there is a problem with the name resolution configuration.

Solaris 2.6 Setup

The commands and paths listed in the following procedures may vary slightly depending upon the OS version.

- A Remote Printer cannot be configured in OpenWindows using the Admintool. It should be setup using the following procedure:

Configuring the Print System

1. Login as root.

```
# login root
```

2. Add the print server name.

The following example uses *sales820ptr* as the print server name and *sales820q* as the print queue name:

```
# lpadmin -p sales820q -m netstandard -o protocol=bsd -o dest=sales820ptr:lp1 -v /dev/null
```

3. Enable the printer queue.

```
##/usr/sbin/accept sales820q
##/usr/bin/enable sales820q
```

Printing, Canceling a Print Job, and Checking Queue Status

The commands for these functions are explained in the [Printing, Canceling a Job, and Checking Status](#) section.

Controlling the Banner Page

A banner page is printed by default. If a banner page is not desired, add "-o nobanner" when printing, e.g.:

```
# lp -d sales820q -o nobanner file name
or
# lpadmin -p sales820q -o nobanner
```

The banner page default may also be changed by editing the interface file in */etc/lp/interfaces*. Open the interface file using an editor such as *vi* and change "nobanner=no" to "nobanner=yes".

```
# vi /etc/lp/interfaces/sales820q
```

Solaris 2.3x - 2.5x Setup

This section explains how to setup printing in Solaris 2.5x and earlier versions. The instructions below are for Solaris 2.4. The commands and paths listed in the following procedures may vary slightly depending upon the OS version.

A Remote Printer cannot be configured in OpenWindows using the Admintool. It should be setup using the following procedure:

Configuring the Print System

1. Login as root.

```
# login root
```

2. Stop the print scheduler.

```
# /usr/sbin/lpshut
```

3. Add the print server.

The following example uses *sales820ptr* as the print server name:

```
# /usr/sbin/lpsystem -R0 -t bsd sales820ptr
```

4. Create the print queue.

The following example uses *sales820q* as the print queue name:

```
##/usr/sbin/lpadmin -p sales820q -s sales820ptr:lp1
```

If you use `csch`, use `"\|"`.

5. Start the print scheduler.

```
#!/usr/bin/sh /etc/init.d/lp start
```

6. Enable the print queue.

```
#!/usr/sbin/accept sales820q
#!/usr/bin/enable sales820q
```

Printing, Canceling a Print Job, and Checking Queue Status

The commands for these functions are explained in the [Printing, Canceling a Job, and Checking Status](#) section.

HP-UX 9.x and 10.x Setup

The instructions below are for HP-UX 9.03. The commands and paths listed in the following procedures may vary slightly depending upon the OS version.

Setting up the Remote Spooler

1. Login as root.

```
# login root
```

2. Disable the print spooler.

```
#!/usr/lib/lpshut
```

3. Add the following line to the `/etc/inetd.conf` file.

```
printer stream tcp nowait root /usr/lib/rpdaemon -i
```

4. Restart `inetd`.

```
#!/etc/inetd -c
```

Configuring the Print Queue

1. Create the print queue.

The following example uses `sales820ptr` as the print server name and `sales820q` as the print queue name:

```
#!/usr/lib/lpadmin -psales820q -mrmodel -ormsales820ptr -orlp1 -ocmrcmodel -osmrmodel -ob3 -v/dev/null
```

2. Enable the print queue.

```
#!/usr/lib/accept sales820q
#!/usr/bin/enable sales820q
```

3. Start the print scheduler.

```
#!/usr/lib/lpsched
```

Printing, Canceling a Print Job, and Checking Queue Status

The commands for these functions are explained in the [Printing, Canceling a Job, and Checking Status](#) section.

IBM AIX 4.x.x Setup

The instructions below are for AIX 4.1.5. The commands and paths listed in the following procedures may vary slightly depending upon the OS version.

Configuring the Print System

1. Login as root.

```
# login root
```

2. Add the print server.

Following is an example using *sales820ptr* as the print server name:

```
# ruser -a -p sales820ptr
```

3. Start remote printer daemon.

```
# startsrc -s lpd
# mkitab 'lpd:2:once:startsrc -s lpd'
```

Creating the Print Queue

1. Execute *smit* and select "Add Print Queues".

```
#smit mkrque
```

2. From the list, select "remote" (printer connected to remote host).
3. Select "Standard processing" from the list.
4. Setup the following items on the "Add a Standard Remote Print Queue" screen. (For items other than the ones below, modify as necessary according to your environment.)

The following example uses *sales820ptr* as the print server name (IB-23 host name) and *sales820q* as the print queue name:

Item	Entry
Name of QUEUE to add	sales820q
HOSTNAME of remote server	sales820ptr
Name of QUEUE on remote server	lp1
TYPE of print spooler on remote server	BSD
DESCRIPTION of printer on remote server	[comments]

Printing, Canceling a Print Job, and Checking Queue Status

The commands for these functions are explained in the [Printing, Canceling a Job, and Checking Status](#) section.

BSD UNIX Setup

The instructions below are for SunOS 4.1.3. The commands and paths listed in the following procedures may vary slightly depending upon the OS version.

Configuring the Print System

1. Login as root.

```
# login root
```

2. Register the IB-23 in the */etc/printcap* file.

The following example uses *sales820ptr* as the print server name and *sales820q* as the print queue name (spool directory). The *etc/printcap* file entries are followed by explanations of the parameters in *italics*:

```
sales820ptr:\nPrint server name
```

```
:lp=:rm=sales820ptr:rp=lp1:\nlp= print device; this is blank when a remote printer is specified.\nrm= remote printer host name as entered in the /etc/hosts file.\nrp= remote printer; use the IB-23 logical port name of lp1.
```

```
:sd=/usr/spool/sales820q:\nsd= spool directory and path
```

```
:lf=/usr/spool/sales820q/sales820q_errs:\nlf= error log file and path
```

3. Create the Error Log File and Spool Directory as specified in the *etc/printcap* file.

The following example uses *sales820q* as the spool directory and *sales820q_errs* as the error log file name.

```
# mkdir /usr/spool/sales820q\ncreates the spool directory
```

```
# touch /usr/spool/sales820q/sales820q_errs\ncreates the error log file
```

```
# chown -R daemon /usr/spool/sales820q\nchanges the owner to daemon
```

```
# chgrp -R daemon /usr/spool/sales820q\nchanges the group to daemon
```

4. Check the lpd (printer demon) function.

```
# ps aux | grep lpd
```

If lpd is not functioning, use the following command when logged in as root.

```
# /usr/lib/lpd&
```

5. Validate the new print queue.


```
# lpc restart sales820q
```

Printing

To send a print file to the queue defined above, enter:

```
# lpr -P sales820q file name
```

Canceling a Print Job

To cancel a print job currently in the queue, enter:

```
# lprm -P sales820q job id
```

Checking the Queue Status

To check the queue status, enter:

```
# lpq -P sales820q      (Short format)  
or  
# lpq -l -P sales820q   (Long format)
```

The status results may not be correctly displayed depending on the UNIX version.

Printing, Canceling a Job, and Checking Status

The commands for these functions are common to all the versions of UNIX covered in this manual except BSD UNIX. The [BSD UNIX](#) section covers these topics separately.

Printing

The *lp* command is used for printing. For details on *lp* command options, please refer to your UNIX manual. The following example prints the specified file name to the queue named *sales820q*.

```
# lp -d sales820q filename
```

Canceling a Print Job

A print job may be canceled with the *cancel* command. The following example cancels the specified job id from the queue named *sales820q*.

```
# cancel sales820q -job id
```

Note that *cancel* may not work properly depending on the UNIX version and the cancel timing.

Checking Queue Status

The *lpstat* command allows checking the queue status. The following example checks the status of the queue named *sales820q*.

```
# lpstat -p sales820q
```

ftp (File Transfer Protocol) Printing

This section explains printing via ftp. For additional details on ftp commands, please refer to your UNIX manual.

Printing via ftp

1. Login to the IB-23.

IB-23 support for anonymous ftp allows logging in without entering a user name or password. The following example uses 192.168.30.161 as the IB-23 IP address.

```
#ftp 192.168.30.161
Connected to 192.168.30.161
220 IB-23 Ver1.0.0 FTP Server.
User (192.168.110.40:(none)):
331 Password required.
Password:
230 User Logged in.
ftp>
```

2. Select the IB-23 logical directory.

Always use lp1 as the logical directory unless printing Kanji text. The following example selects lp1 as the logical directory, then confirms the current directory.

```
ftp>cd /lp1
250 Command Ok.
ftp>pwd
257 "/lp1" is current directory.
ftp>
```

3. Select ASCII or BINARY transfer mode.

BINARY mode should be used to transfer print files generated by a printer driver. ASCII mode is used to transfer text based files and automatically converts LF (linefeed) codes to CR+LF (carriage return, linefeed) codes. If no transfer mode is specified, then ASCII mode is used as the default.

The following example sets BINARY as the transfer mode and confirms the current transfer mode.

```
ftp>type binary
200 Type set to I.
ftp>type
Using binary mode to transfer files.
ftp>
```

4. Transfer the file using the *put* command.

The following example illustrates the transfer of the *finance.prn* file to the IB-23.

```
ftp>put finance.prn
200 PORT command Ok.
150 Open data connection.
226 Data connection closed.
ftp: 122285 bytes sent in 0.07 Seconds 1746.93 Kbytes/sec.
ftp>
```

It is also possible to enter the full path to the file name and/or explicitly specify the logical directory (/lp1) as in the following *put* examples.

```
ftp>put /users/export/finance.prn
ftp>put finance.prn /lp1
ftp>put /users/export/finance.prn /lp1
```

5. Close the ftp session.

```
ftp>quit
```

Confirming ftp Connection Status

The *quote* command may be used to confirm the IB-23 IP address, connected user name, and transfer mode, as shown in the following example.

```
ftp>quote stat
211-FTP server status:
Connected to: 192.168.30.161
User logged in: guest
Transfer type: BINARY
Data connection:Closed.
211 End of status.
ftp>
```



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Security

This section covers the following topics related to printer and networking security.

- [Administrator Account](#)
 - [IP Filters](#)
 - [Encryption](#)
 - [Firmware Updates](#)
-

Administrator Account

The Administrator (Admin) account is the master access account. It controls access to the printer and networking configuration from all setup and management utilities including the HTML web pages.

! Note: The factory default for the IB-23 is no password. Setting the Admin password is highly recommended to prevent unauthorized changes to the printer and networking configuration.

WARNING: If you forget the administrator password, following the instructions given in [Resetting to Factory Defaults](#) to restore the factory default settings and clear the password.

1. In the web browser address bar, enter the printer's IP address to display the printer webpage.
2. Click the **Basic** tab and then click **Security** in the menu on the left. Alternatively, click the **Advanced** tab and then click **Account Setup** in the menu on the left.
3. Enter a password in the administrator account section and click **Submit**.

http://192.168.1.2/ - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail

Address http://192.168.1.2/

KYOCERA COMMAND CENTER FS-6950 Status: OK

Start **Basic** Printer Advanced

Basic > Security

Account Setup

Administrator Account

Old Password:

New Password:

Confirm New Password:

Note:
The Administrator password controls access to the device configuration.

Firmware Update

Allow firmware updates via the update utility (IBVERUP): ☒ On ☐ Off

Submit Cancel

Done Internet

Figure 1. Account Settings Page

IP Filters

The IB-23 offers the capability to filter IP traffic by source address, allowing only authorized addresses access to specific protocols. For example, an IP filter could be set for HTTP so only specific addresses could access the printer's HTML web pages.

You can enter valid IP address ranges up to 16 access lists. The following protocols can be designated for individual IP address ranges.

- FTP (port 21)
- HTTP (port 80)
- HTTPS (port 443)
- SNMP (port 161)
- LPR / LPD (port 515)
- IPP (port 631)
- RAW Port (ports 9100 - 9103)

The IP filter can be configured from the internal webpage in the IB-23. Follow these steps to configure it with a web browser.

1. In the web browser address bar, enter the printer's IP address to display the printer webpage.
2. Click the **Advanced** tab. The webpage for TCP/IP General setting is displayed.
Click **IP Filters**.
3. Enter the IP address ranges and choose the protocols that are allowed for access.
4. Click **Submit** to register the new settings.

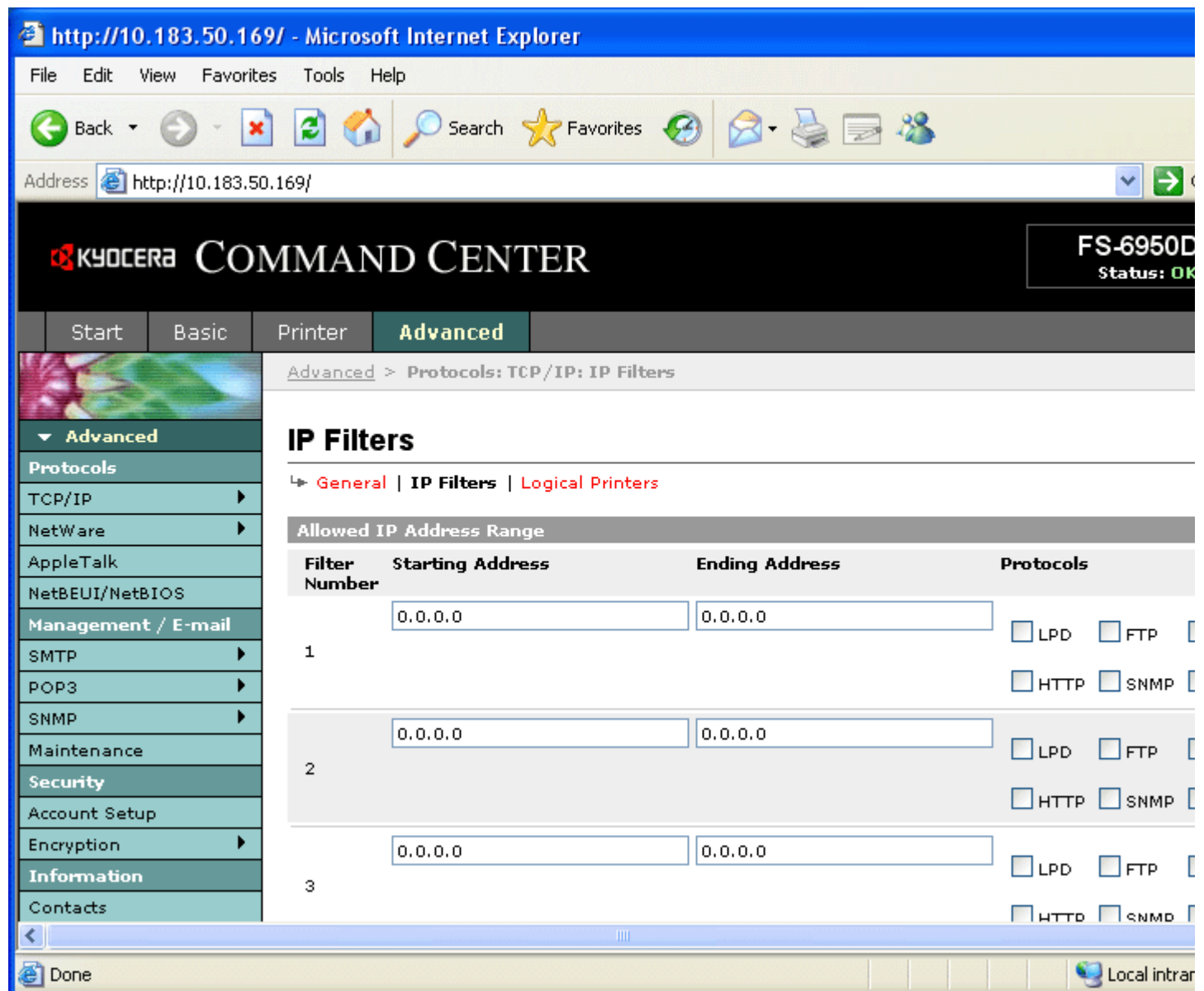


Figure 2. IP Filters Page

Encryption

The IB-23 provides encryption functionality using SSL (Secure Sockets Layer). This makes it possible to encrypt the transmission and reception of print data between the computer and IB-23, and to encrypt access to the IB-23 using a web browser.

Encryption is turned off in the factory default settings. Encryption can be turned on using the built-in IB-23 web pages.

A certificate for use with the encryption can also be created using the built-in IB-23 web pages. This can be used in applications where there is a limit on the printer usage, because the certificate can be given an expiration date. The certificate is a print server certificate, and does not place any restrictions on clients.

Use the following procedure to turn encrypted authentication on or off and to create a certificate.

1. Enter the IP address of the printer into a web browser to display the printer web page.
2. Click the **Advanced** tab.
3. Click **Encryption** in the menu on the left side of the Command Center, then click **General**.
4. Click **On** in the **Authentication** field, and select the encryption scheme to use in the **Privacy Mode** field.
5. Click **Submit**.

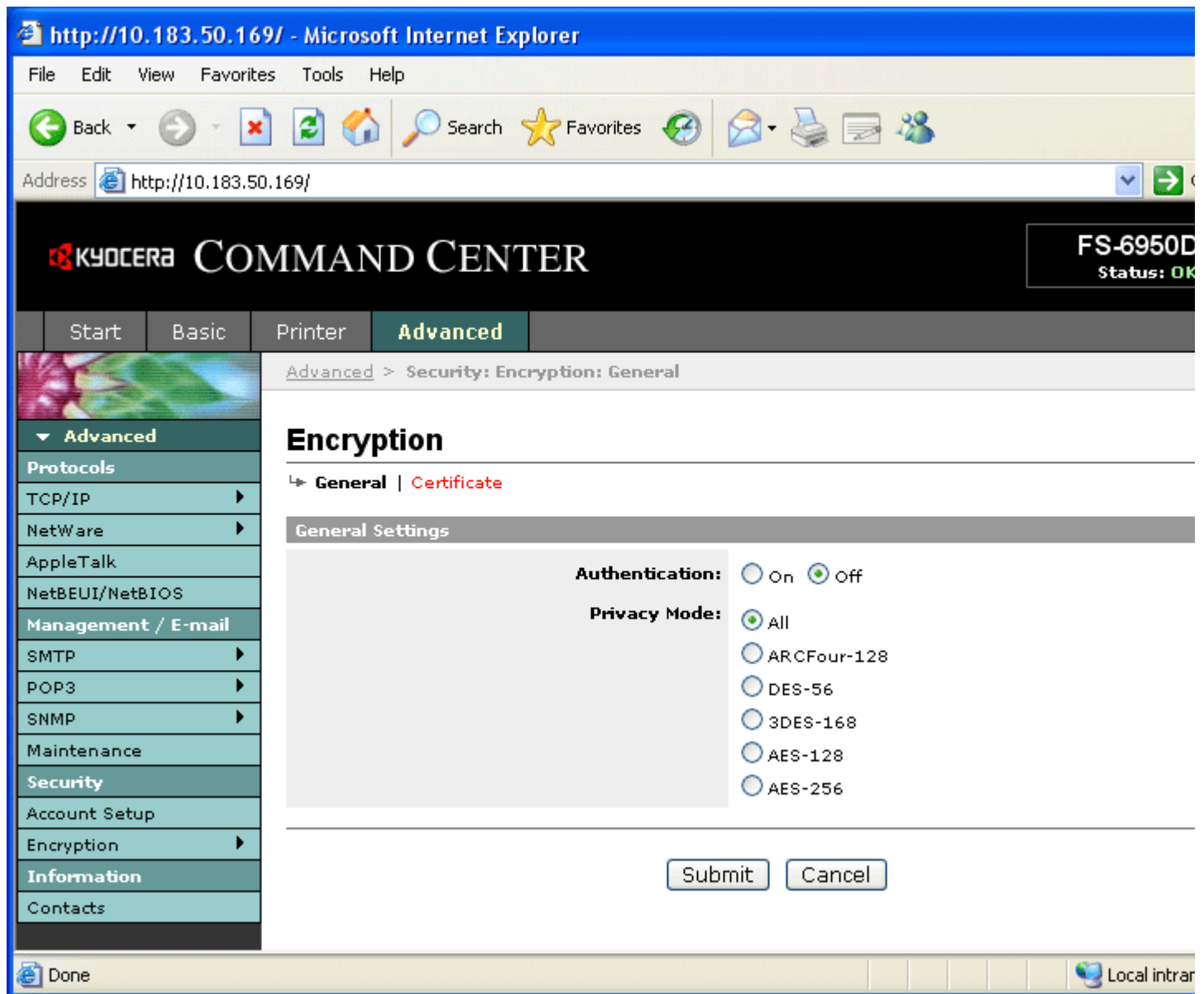


Figure 3. The encryption settings page

6. Click **Certificate**.
7. Enter the location and name of the printer into the certificate data fields that are displayed. The **E-mail Address** field may be left blank.
8. Specify the expiration date of the SSL certificate using the **Expiration Date** field. Once the specified expiration date has passed, the IB-23 cannot be used until a new expiration date is specified.
9. Click **Submit** to save the new settings. The security warnings that appear when connecting to the printer are no longer displayed once the certificate has been configured.

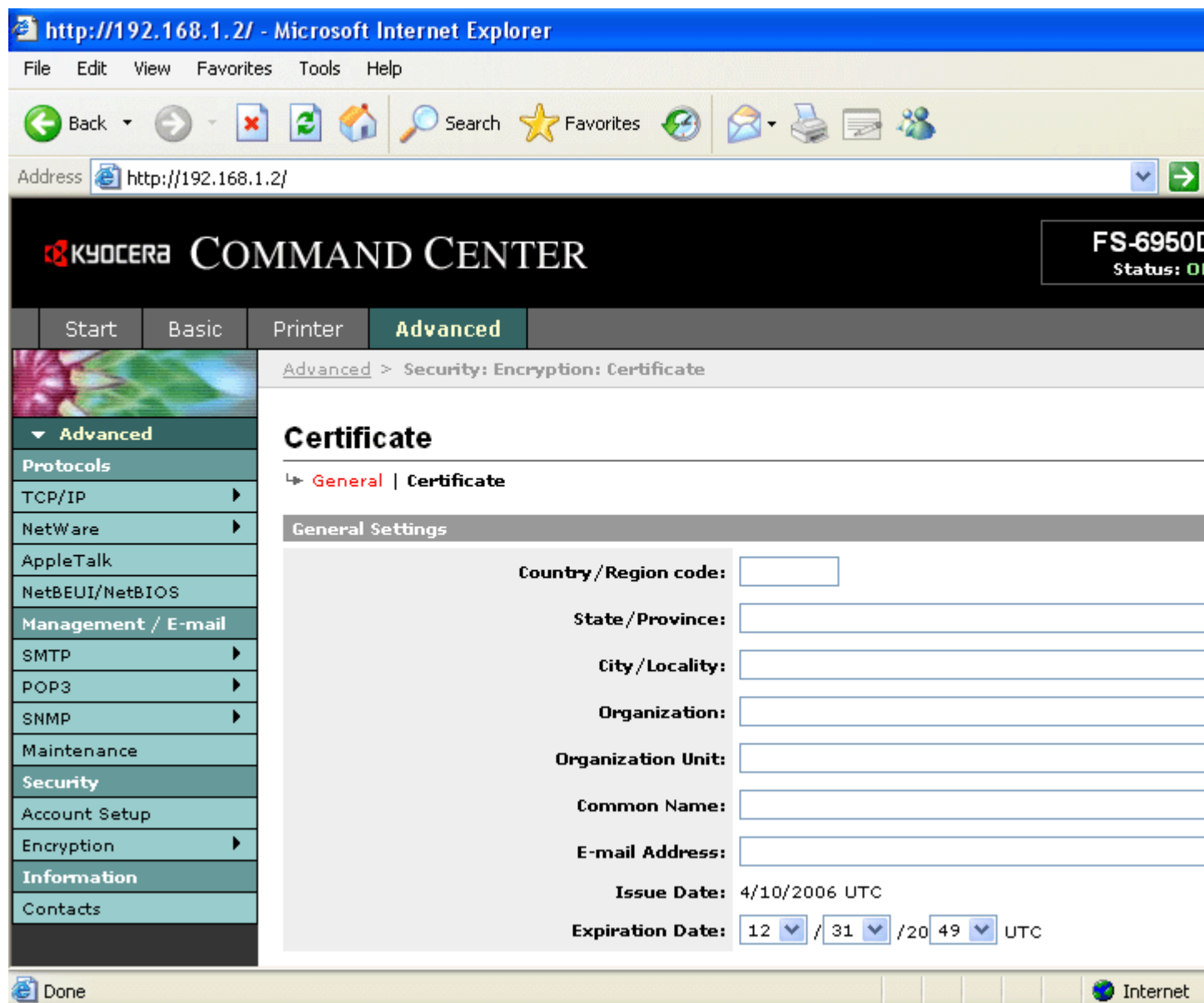


Figure 4. The certificate settings page

Secure Network Printing Settings in Windows

On Windows 2000/XP/Server 2003, the path to the printer that the IB-23 is installed in can be configured using the IPP client that is included with Windows. This allows the print data to be encrypted before being sent to the printer.

1. From the Windows **Start** menu, select **Control Panel > Printers and Other Hardware > Printers and Faxes > Add a Printer**.
2. The Add Printer Wizard is displayed. Click **Next**.
3. Select **A network printer, or a printer attached to another computer**, and click **Next**.

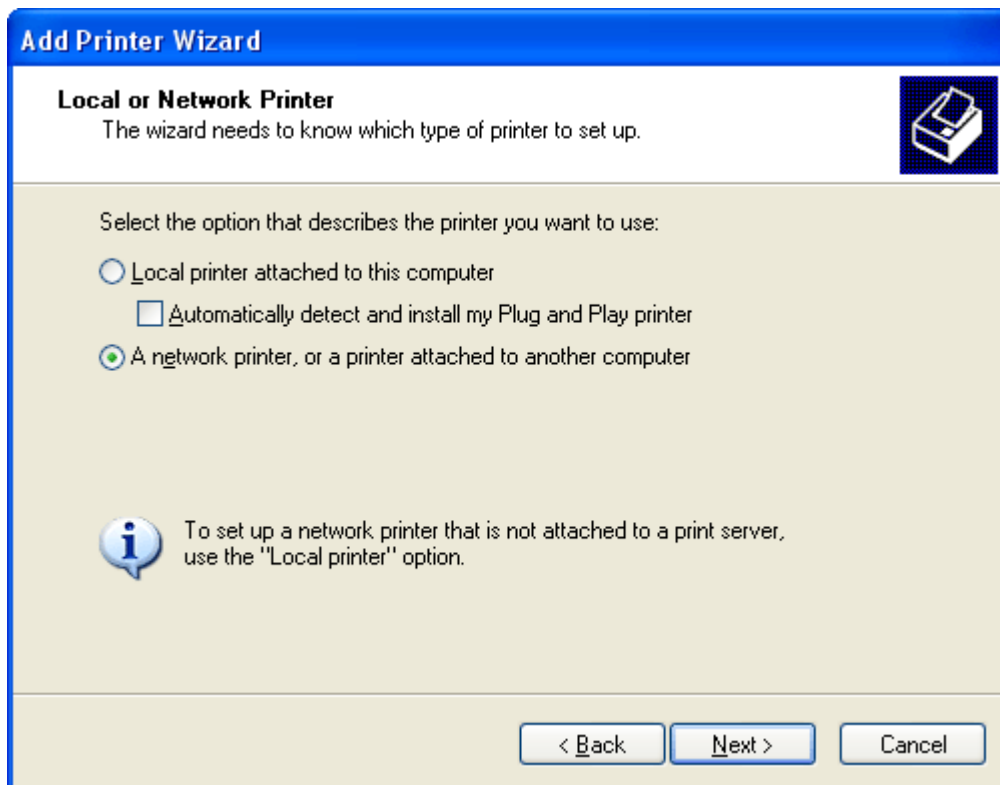


Figure 5. Local or Network Printer Selection Screen

4. Select **Connect to a printer on the Internet or on a home or office network** and then enter the URL of the printer in the format `https://(Printer IP Address)/ipp/lp`.

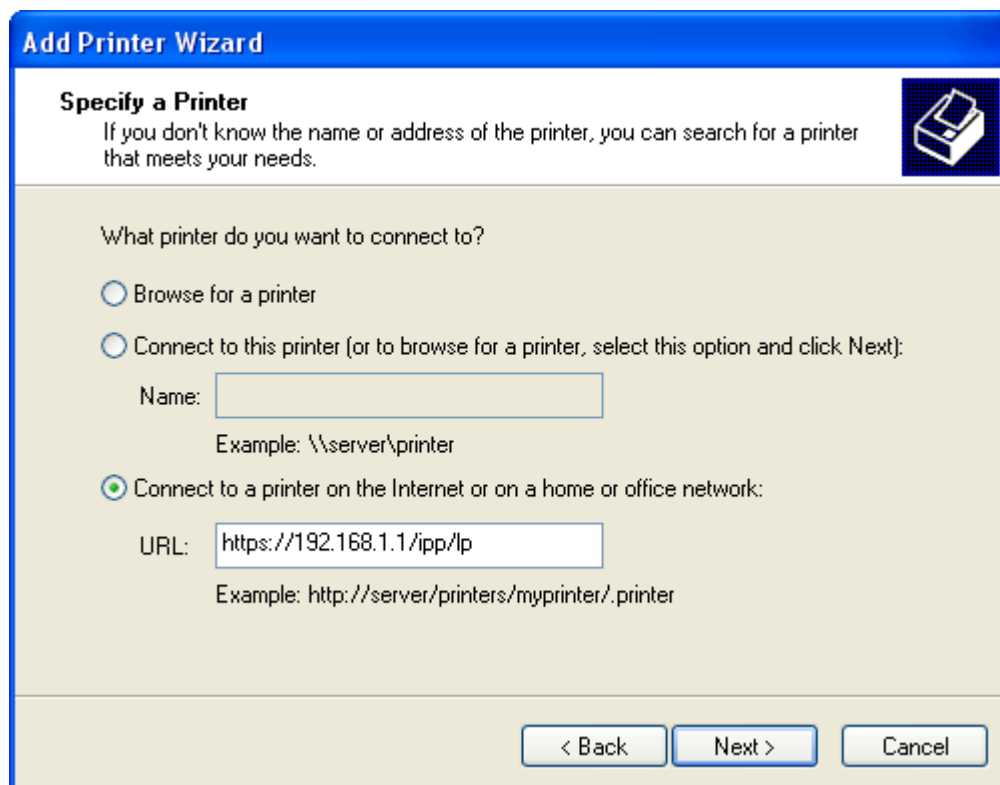


Figure 6. The Specify a Printer Screen

5. Click **Next**.
6. The screen to search for and install the printer driver is displayed. Follow the on-screen directions to install the

printer driver.

Secure Connections from a Web Browser

To use a secure connection to access the built-in web pages in the IB-23, enter **https://192.168.1.1/** into the address bar of the web browser (if 192.168.1.1 is the IP address of the IB-23).

Firmware Updates

Unauthorized firmware updates present a potentially serious security threat. Someone could unintentionally or maliciously render the networking inoperable by updating the network component with modified or incorrect firmware. The IB-23 is designed with security measures to prevent unauthorized firmware updates.

IBVERUP

IBVERUP is a standalone utility specifically for updating firmware. It is usually distributed with the updated firmware. To prevent accidental or malicious updates with IBVERUP, you can configure the printer webpage to reject IBVERUP updates.

Use the web browser to disable IBVERUP updates by choosing the **Off** radio button of the **Allow firmware updates via the update utility (IBVERUP)** on the [account settings page](#).



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Using a Web Browser to Manage the IB-23

This section describes how to manage the IB-23 using a web browser.

- [1.COMMAND CENTER Overview](#)
 - [2.Start Page](#)
 - [3.Basic Page](#)
 - [4.Printer Page](#)
 - [5.Advanced Page](#)
 - [6.Troubleshooting](#)
-

1. COMMAND CENTER Overview

Configure and monitor the IB-23 from the unit's internal webpage, through the COMMAND CENTER. The COMMAND CENTER is your web interface for managing the IB-23 from your computer. The computer and IB-23 are linked via TCP/IP.

Note:

Confirm the following points before accessing the COMMAND CENTER.

- Your computer must support TCP/IP.
- The IB-23's IP address must be configured.

1-1. Compatible Systems

The COMMAND CENTER can be used with these operating systems.

- Microsoft Windows 98SE/Me/2000/XP/Server2003, and Microsoft Windows NT 4.0
- Apple Macintosh OS X 10.x

1-2. Compatible Web Browsers

The following web browsers have been verified for the COMMAND CENTER.

OS	Web Browser
Windows	Microsoft Internet Explorer 5.5 and 6.0
	Netscape 6.2 and 7.1
	Opera 7
	Mozilla 1.5
Mac OS	Microsoft Internet Explorer 5.2 [SSL not supported]
	Netscape 7.1
	Safari 1.0 (OS X 10.2 or later) [2.0 needed for SSL]

1-3. Accessing COMMAND CENTER

1. Launch a web browser.
2. In the address bar, enter the IP address assigned to the IB-23 as the URL. The home page gives basic information about the IB-23 and shows the current status and control panel display.
3. To view or configure settings, choose a category from the navigation bar on the left.

Note:

If an administrator password has been set for the COMMAND CENTER, you will be prompted to enter a user name and password when accessing pages other than the Start page. The administrator password can be designated on the Basic Page of the COMMAND CENTER.

1-4. COMMAND CENTER Screen

The COMMAND CENTER is made up of 4 pages.

Page	Description
Start	For checking the IB-23 status and current settings.
Basic	For configuring settings applicable to all aspects of IB-23 operation, such as the default, security, and basic network settings.
Printer	This section describes settings applicable to the printer's printing functions, as well as settings for sending print data to the printer.
Advanced	For configuring advanced settings applicable to all aspects of the print system. Used mainly for configuring advanced network settings.

2. Start Page

You can do the following from the Start page.

- Check the operating status of the print system
- Change the display language of the COMMAND CENTER
- Check the IB-23 network settings
- Access the Kyocera Mita website

2-1. Home Page

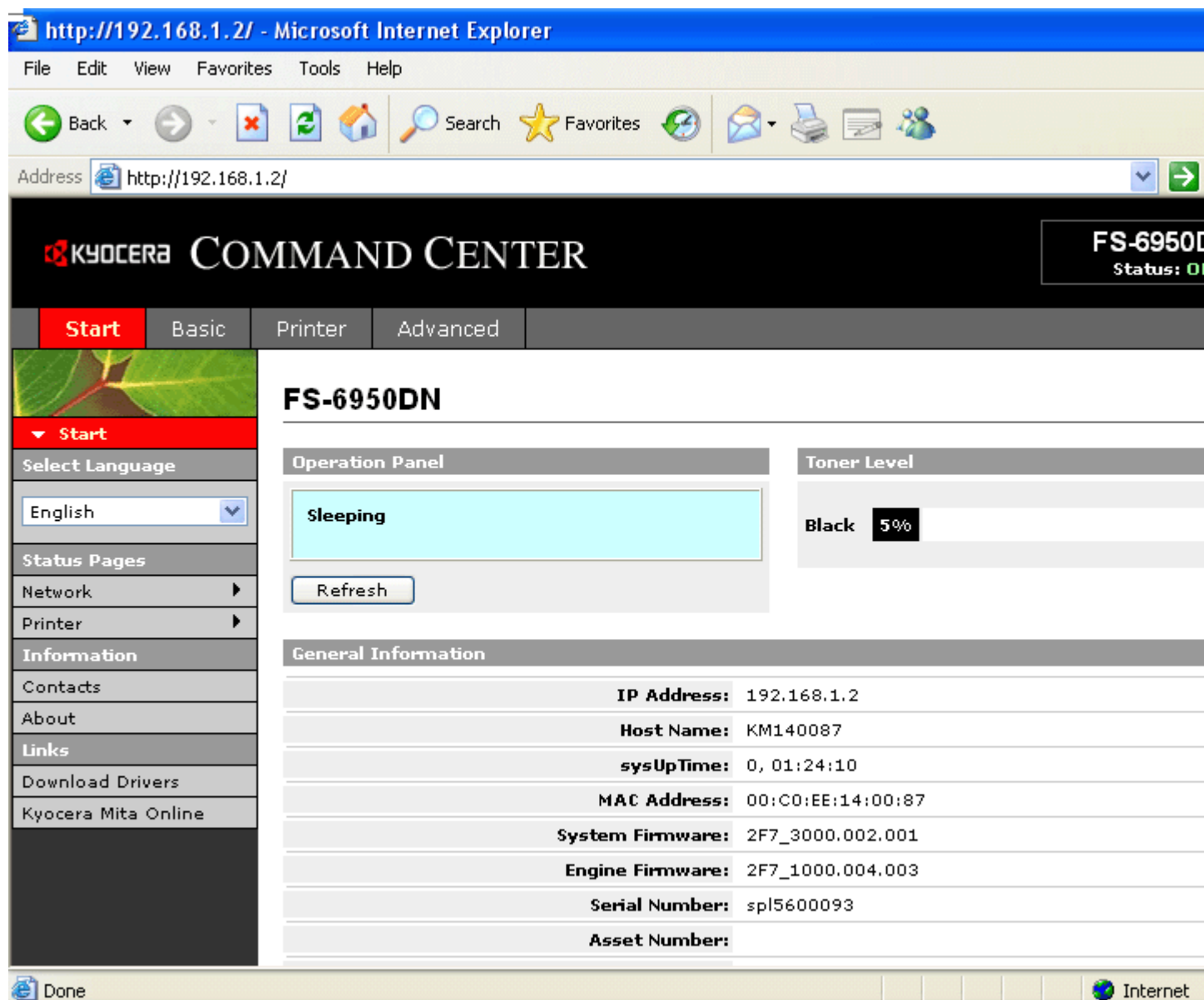


Figure 1. COMMAND CENTER Start Page

This is the first screen displayed after the COMMAND CENTER is launched. You can check the status of the IB-23 from this page.

Item	Description
Language	Displayed for multilingual versions of the COMMAND CENTER. Choose the desired language from the drop down list.
Operation Panel	Displays the printer status on the operation panel. To update the information, click the Refresh button.
Toner Level	Shows roughly how much toner is left.
General Information	For checking the IP address, host name, sysUpTime, MAC address, system and engine firmware, serial number, asset number, and number of pages to print.
Media Input	For checking the paper setting of the cassette and multi-purpose tray that supply paper. You can also check whether paper is loaded or not.

Note:

If the COMMAND CENTER display language does not match the display language of the operation panel, some characters may not be displayed correctly.

2-2. Status Page

On the Status page, you can check the settings for a range of operations executed using the control panel or COMMAND CENTER, such as printing and network settings.

Page	Description
Start > Status Pages > Network > General	For checking TCP/IP, IPv6, AppleTalk, and NetBEUI/NetBIOS settings. For TCP/IP or IPv6 details, access the Advanced Page and go to Protocols > TCP/IP > General. For AppleTalk details, access the Advanced Page and go to Protocols > AppleTalk. For NetBEUI/NetBIOS details, access the Advanced Page and go to Protocols > NetBEUI/NetBIOS.
Start > Status Pages > Network > IP Filters	For checking the range of IP addresses from which the IB-23 can be accessed. If no IP address is designated, no addresses have access rights to the IB-23. For details, access the Advanced Page and go to Protocols > TCP/IP > IP Filters.
Start > Status Pages > Network > POP3/SMTP	For checking e-mail-related settings. For details, access the advanced settings page and go to Management/E-mail > SMTP > General or to Management/E-mail > POP3 > General.
Start > Status Pages > Network > Logical Printers	For checking the logical printer settings. For details, access the Advanced Page and go to Protocols > TCP/IP > Logical Printers.
Start > Status Pages > Network > NetWare	For checking the NetWare page settings and status. For details, access the Advanced Page and go to Protocols > NetWare > General.
Start > Status Pages > Network > SNMP	For checking the SNMP settings. For details, access the Advanced Page and go to Management/E-mail > SNMP > General.
Start > Status Pages > Network > Security	For checking the security settings. For details, access the Advanced Page and go to Security > Encryption.
Start > Status Pages > Printer > General	For checking basic printer settings. For details, access the Basic Page and the Printer Page.
Start > Status Pages > Printer > I/F Independent	For checking settings that are common to all of the printer interfaces. For details, access the Basic Page and the Printer Page.
Start > Status Pages > Printer > I/F Dependent	For checking settings that are specific to each of the printer interfaces. For details, access the Printer Page.

2-3. Information Page

You can check Contact Information settings, as well as the model name and firmware version of the IB-23.

Page	Description
Start > Information pages> Contacts	This page can be customized to display contact information for the dealer or service center, for example. For details, access the Advanced Page and go to Information > Contacts.
Start > Information pages> About	For checking the IB-23 model name and firmware version.

2-4. Links Page

Offers links to the following websites.

Item	Description
Download Drivers	Click this link to access the website for driver downloads.
Kyocera Mita Online	Click this link to access the Kyocera Mita website.

3. Basic Page

From this page, you can configure settings applicable to all aspects of IB-23 operation, such as Security and Network settings. You can restrict access to this page by setting an administrator password. Refer to Security for details.

http://192.168.1.2/ - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail New Tab

Address http://192.168.1.2/

KYOCERA COMMAND CENTER FS-6950D Status: OK

Start **Basic** Printer Advanced

Basic > Security

Account Setup

Administrator Account

Old Password:

New Password:

Confirm New Password:

Note:
The Administrator password controls access to the device configuration.

Firmware Update

Allow firmware updates via the update utility (IBVERUP): ☒ On ☐ Off

Submit Cancel

Done Internet

Figure 2. COMMAND CENTER Basic Page

3-1. Device Defaults

From this page, you can set up or change the operation panel display language, operation panel key restrictions, and the printer's sleep timing.

Item	Description
Operation Panel Language	Choose the language for the operation panel display.
Lock Operation Panel	For locking operation panel keys, preventing use. <ul style="list-style-type: none"> ■ Lock: Locks all keys. Use is prohibited. ■ Partial Lock: Restricts use of the printer's MENU key. ■ Unlock: All keys may be used.
Sleep Timer	Choose the time until the printer switches into sleep mode. The supported range is 5-240 minutes. The default setting varies depending on the printer.
Sleep Mode (Advanced)	The sleep mode can be switched on and off. By default, it is on. To disable sleep mode, follow these steps. <ol style="list-style-type: none"> 1. On the right of Sleep Timer, click Advanced. 2. Disable sleep mode. 3. Click Submit on the bottom of the page.
Buzzer	The buzzer can be switched on and off. By default, it is on.
RAM Disk Mode	Turns the RAM Disk feature of the printer on and off.
RAM Disk Size	Sets the capacity of the RAM Disk in the printer.

3-2. Security

You can restrict access from the COMMAND CENTER to various pages (except the Start page) by setting an administrator password.

Note:

- By default, no administrator password is set. We recommend setting an administrator password to prevent unauthorized changes to the IB-23 settings.
- The password can be up to 16 characters long.
- Make a note of the password in case you forget.
- The administrator password can also be set using Advanced > Security > Account Setup.

Item	Description
Old Password	Enter the password that you are currently using.
New Password	Enter the new password.
Confirm New Password	Enter the new password again for confirmation.
Allow firmware updates via the update utility (IBVERUP)	Enables (On) or disables (Off) updates using IBVERUP.

Follow these steps to set up or change the password.

1. Enter the current password in the old password field. (No input required when setting the password for the first time.)

2. Enter the desired password in the new password field.
3. Re-enter the same password in the confirmation field.
4. Click **Submit** at the bottom of the page.

3-3. Network

From the Network page, you can configure settings required for network printing.

For more advanced settings, refer to the Advanced Page and go to Protocols > TCP/IP > General.

Item	Description
Host Name	For designating the name of IB-23.
IP Address	For assigning the IB-23's IP address. ex.: 192.168.110.171
Subnet Mask	For designating the subnet mask. If the IP address entered manually starts with 192 to 254, use 255.255.255.0 as the subnet mask.
Default Gateway	For designating the IP address of the default gateway.
DHCP	DHCP can be switched on and off. Activate DHCP to have the IB-23's IP address automatically assigned by the DHCP server.
BOOTP	BOOTP can be switched on and off. Activate BOOTP to have the IB-23's IP address automatically assigned by the BOOTP server.
Bonjour	Bonjour can be switched on and off. Activate Bonjour if you want to be able to add printers through Print Center in Mac OS X. Printers must support KPD L for printing.
Bonjour Name	For designating a name to be used with Bonjour.
10/100 Connection	Selects the speed of the connection to the network.

3-4. Time

The IB-23 obtains the current time from a time server on the network. The time is used in various reports sent from the IB-23 via e-mail.

Item	Description
Current Local Time	Shows the time as obtained from the time server.
Time Zone	For designating the offset from UTC.
Time Protocol	For designating the server to obtain for the time. The available servers are as follows. <ul style="list-style-type: none"> ■ None: Do not obtain the time from a server. ■ NetWare: Obtain the time from a NetWare server. ■ SNTP Server: Obtain the time from a SNTP server. Designate the server name or IP address.

3-5. Reset

To enable the changes you have made to IB-23 network settings, you must restart the network interface. You can also restore the default settings as needed.

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Item	Description
Restart Network Interface	Click the Restart button to restart the network interface.
Set all Network Settings to Factory Default	Click the Reset button to restore the default network interface settings.

4. Printer Page

This page includes settings applicable to the printer's printing functions, as well as settings for sending print data to the printer. You can restrict access to this page by setting an administrator password. Refer to **Security** on the basic settings page for details.

http://192.168.1.2/ - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Mail Print Send To People

Address http://192.168.1.2/

KYOCERA COMMAND CENTER FS-6950D Status: OK

Start Basic **Printer** Advanced

Printer > Defaults: System

System

Emulation		Page Control	
Parallel:	PCL 6	Duplex Mode:	Off
USB:	PCL 6	Copies:	1
Network:	PCL 6	Page Orientation:	<input checked="" type="radio"/> Portrait <input type="radio"/> Land
Option:	PCL 6		

Print Quality	
KIR Mode:	<input checked="" type="radio"/> On <input type="radio"/> Off
EcoPrint Mode:	<input type="radio"/> On <input checked="" type="radio"/> Off
Resolution:	Fast1200

Submit Cancel

Done Internet

Figure 3. COMMAND CENTER Printer Page

4-1. Defaults > System

The main items displayed on the System page are as follows.

Item	Description
Emulation	Sets emulation for each interface.
KIR Mode	Smoothing from Kyocera Image Refinement (KIR) can be switched on and off.
EcoPrint Mode	EcoPrint can be used to conserve toner and reduce printing costs. This feature can be switched on and off. By default, it is off.
Resolution	For designating the printing resolution.
Duplex Mode	Switched duplex printing on and off.
Copies	For designating the number of copies.
Page Orientation	For switching between printing in landscape and portrait mode.

4-2. Defaults > Media Input

On the Media Input page, you can assign paper sizes and paper types to each cassette or tray for paper supply.

Item	Description
Default	Determines the cassette for the default settings used in supplying paper.
Tray	Shows the available cassettes. Any optional cassettes the printer is equipped with are also displayed.
Size	Shows the paper size for the selected cassette.
Type	Shows the paper type designated for the cassette or multi-purpose tray for paper supply. You can change paper type from the dropdown list.

4-3. Defaults > Document Output

The Document Output Page is used to select the output tray.

Item	Description
Default	Selects the tray that will output the paper.
Paper Output	Shows the available output trays.
Output Orientation	Shows the orientation of the paper when it is ejected from the printer. The Face up setting ejects the paper with the printed surface facing up, and the Face down setting ejects the paper with the printed surface facing down.

4-4. Defaults > FRPO Parameters > I/F Independent

The FRPO Parameters are a variety of printer settings that are stored in the internal memory of the printer. The I/F Independent Page of the FRPO Parameters is used to change the FRPO parameters that are common to all of the interfaces. Refer to the instruction manual of the printer for details on each of the parameters.

4-5. Defaults > FRPO Parameters > I/F Dependent

The I/F Dependent Page of the FRPO Parameters is used to change interface-specific FRPO parameters for each of the interfaces. Refer to the instruction manual of the printer for details on each of the parameters.

4-6. Send Data > Printable Data

This sends files directly to the IB-23 for printing. The following files can be printed. You can also print text that you enter through the COMMAND CENTER.

Item	Description
File	Click the Browse button to select a file. Files with the extensions *.ps, *.prn, *.pdf, and *.txt are supported. For PostScript and PDF files, set the printer emulation to KPDL or KPDL (AUTO).
Text	Enter the text for printing in the input field. Up to 255 characters can be entered.

5. Advanced Page

This page includes advanced settings applicable to all aspects of IB-23 operation. You can restrict access to this page by setting an administrator password. Refer to 3-2. [Security](#) for details.

Figure 4. COMMAND CENTER Advanced Page

5-1. Protocols > TCP/IP > General

This table gives an overview of the items displayed on this page.

Item	Description
Host Name	For designating the name of IB-23.
IP Address	For assigning the IB-23's IP address. Example: 192.168.110.171
Subnet Mask	For designating the subnet mask. If the IP address entered manually starts with 192 to 254, use 255.255.255.0 as the subnet mask.
Default Gateway	For designating the IP address of the default gateway.
DHCP, BOOTP, RARP, ARP/PING	The IB-23's IP address can be automatically assigned by DHCP, BOOTP, RARP, and ARP/PING.
Bonjour	Bonjour can be switched on and off. Activate Bonjour if you want to be able to add printers through Print Center in Mac OS X. Printers must support KPDLL for printing.
Bonjour Name	For designating a name to be used with Bonjour.
ThinPrint	Enables (On) or disables (Off) ThinPrint. ThinPrint is a technology that distributes the network load due to printing through compression and bandwidth control of the print data. To use ThinPrint, .printServerEngine is required on the server, and .printClient is required on the client (printer). When the ThinPrint feature of the IB-23 is turned on, the IB-23 operates as a ThinPrint client.
ThinPrint Port Number	Specifies the port that is used for communication with .printServerEngine. The default value is 4000.
DNS Server (Primary, Secondary)	For designating the primary and secondary IP addresses of the DNS (Domain Name System) server.
Domain Name	For designating the DNS name of the domain to which the IB-23 belongs. Do not designate the host name.
WINS Server (Primary, Secondary)	For designating the primary and secondary IP addresses of the WINS server.
Scope ID	For determining the scope of IP addresses the Windows server can assign or lease.
FTP Status Check	Checking the status of the FTP connection that can be turned on and off.
IPv6	Switches IPv6 on and off. When this setting is on, the IB-23 supports IPv6. In order to use IPv6, however, all of the devices on a network need to support IPv6.

5-2. Protocols > TCP/IP > IP Filters

IP Filters can be used to designate what hosts or host networks can use the IB-23. For entry, designate the host IP address. You can designate up to 16 access list entries.

If there are no entries, access is accepted from all hosts. To enable access from all hosts on network 192, for example, enter 192.0.0.0 as the start address and 192.255.255.255 as the end address. To allow only the host 192.168.1.2, enter 192.168.1.2 for both the start and end address.

Apply a check mark to protocols to select them.

Protocols left unselected can be used for access from all hosts. To deny access from all hosts, enter 0.0.0.0 as the start and end address and select the protocols.

5-3. Protocols > TCP/IP > Logical Printers

The IB-23 can be used as a virtual printer that adds or replaces strings (commands) at the start or end of job data. You can configure up to four logical printers.

Logical printers use FTP, LPR, or IPP as the communication protocol. Printouts to nonexistent ports are all sent to Logical Printer 1.

Item	Description
TCP/IP Port Number	You can designate the port number for logical printers just as you can designate the

	physical port number for TCP (such as 9100). Data sent to the designated physical port is converted in a way corresponding to the designated logical printer. If you designate the same port number as a port that was previously designated (such as for FTP or LPD), the port designation is invalid.
Bi-directional Printing	You can enable (On) or disable (OFF) bi-directional printing that uses the physical port for TCP/IP communication. If this setting is off, all data received from the printer is disregarded. When printing with PostScript, PjL, or other commands, bi-directional printing must be on to return data to the client that was received from the printer.
Start of Job String	You can designate a string to be sent to the printer before direct output to the output port (lp port). If you need to send a control code before printing, designate that string.
End of Job String	You can designate a string to be sent to the printer after direct output to the output port (lp port). If you need to send a control code after printing, designate that string.
Banner Page	Banner page printing can be enabled (On) or disabled (Off) when printing via FTP or LPD.

5-4. Protocols > NetWare > General

This print system supports both NDS and bindery printing in either printer server mode or remote printer mode.

To set up NetWare, client software must be installed and you must be logged on with administrator rights. Consult your network administrator for assistance.

Printing with NetWare is supported with Novell or Microsoft NetWare Client as the client.

Network operations such as creating the queue require admin, supervisor, or equivalent rights.

Item	Description
NetWare Protocol	Choose whether NetWare protocol is enabled (On) or disabled (Off).
Bindery Mode	Choose whether bindery mode is enabled (On) or disabled (Off).
Frame Type	Choose from four supported four frame types: 802.2, SNAP, ETHERNET-II, and 802.3. You can also choose auto-detect.
NDS Tree	Designate the name of the NDS tree for the connection.
NDS Context	Designate the NDS context for connections in print server mode.
Print Server Mode	Choose whether print server mode is enabled (On) or disabled (Off).
Print Server Name	Shows the print server name.
Queue Polling Interval	The polling interval can be designated.
Banner Page Requests	Choose whether to print banner page when printing in print server mode.
Password	A password can be designated as desired. Login requires that the password here match the print server password set by the NetWare utility.
Remote Printer Mode	Choose whether remote printer mode is enabled (On) or disabled (Off).
Printer Name	Shows the print server name.
Job Timeout	Set the timeout value to complete jobs in remote printer mode in a range of 4 to 255 seconds.

5-5. Protocols > NetWare > Bindery Services

You can register the file server in print server mode and the print server in remote printer mode that are connected by the print system. If none are registered, network discovery is performed at startup, and the first servers (up to eight) are automatically connected.

After system startup, the system conducts polling at regular intervals to connect to servers automatically even when registered file servers are running.

Item	Description
Print Server Mode	Up to eight file servers can be registered. If there are nine or more file servers, register the priority file server names. If none are registered, up to eight servers are automatically connected at startup. However, print server names in the file server must match IB-23 print server names.
Remote Printer Mode	Up to eight print servers can be registered. If there are nine or more print servers, register the priority print server names. If none are registered, up to eight servers are automatically connected at startup. However, printer names (printer port names) in the print server must match IB-23 remote printer names (printer port names). Even if registered file servers are started after the IB-23, the IB-23 regularly conducts polling so they will be automatically connected.

5-6. Protocols > AppleTalk

This print system supports Mac OS. (See 1-1. [Compatible Systems](#)) and is compatible with LaserWriter driver version 8.x. To print in AppleTalk networks, activate AppleTalk protocol.

Item	Description
AppleTalk	Choose whether AppleTalk protocol is enabled (On) or disabled (Off).
Printer Name	Identifies printers in the AppleTalk network.
Zone Name	Identifies the AppleTalk zone (network). An asterisk (*) here indicates the default zone.

5-7. Protocols > NetBEUI/NetBIOS

Print systems connected via NetBEUI are registered in Windows in My Network.

Item	Description
NetBEUI Protocol	Choose whether NetBEUI protocol is enabled (On) or disabled (Off).
NetBIOS over TCP/IP	Enables (On) or disables (Off) NetBIOS over TCP/IP. When this setting is on, NetBIOS can be used in a TCP/IP network environment.
Browse Master	When this option is selected, the print system changes to browse master, and a workgroup is created in My Network. When the option is not selected, the print system is added to an existing workgroup.
Printer Name	The printer and host names on the TCP/IP General tab (Protocols > TCP/IP > General) are interrelated. If you want to change the NetBEUI printer name, change the TCP/IP host name as well.
Workgroup	The printing workgroup is a workgroup shown in Entire Network in My Network. The default workgroup name is "KM-NetPrinters."
Comment	You can enter a comment as desired. This field can also be left blank.

5-8. Management/E-mail > SMTP > General

The IB-23 can notify registered users by e-mail when the toner is running out, or send other information. SMTP is used for this feature. You must configure the SMTP protocol settings before the IB-23 can connect to an SMTP server.

Item	Description
SMTP Protocol	Choose whether SMTP protocol is used (On) or not (Off).
SMTP Port Number	For designating the SMTP port number. Use port number 25 . Click the Test button to check the connection.
SMTP Server Name	Enter the SMTP server name or IP address.
Authentication Protocol	Choose whether SMTP authentication protocol is used (On) or not (Off).
Authenticate as	Select one of the POP3 users (1-3) for SMTP authentication using the selected

	POP3 account. If you select Other , your designated login user name and login password will be used.
Login User Name	If you select Other for POP3 user authentication, the account name you designate here is used for SMTP authentication. Up to 64 characters can be entered.
Login Password	If you select Other for POP3 account authentication, the password you designate here is used for SMTP authentication.
Sender Address	For designating the address of the printer administrator or other print system manager so that replies or non-delivery reports reach the administrator.
Subject	For designating the subject name of e-mail messages with reports sent from the IB-23. This field also supports variable strings such as "%printer" (the model name) and "%serial" (the serial number).
Signature	Enter an e-mail signature.

5-9. Management/E-mail > SMTP > E-mail Recipient (1-3)

Status information, such as notification of errors or that the toner is running out, can be sent automatically at the designated times to the designated e-mail addresses. Configure this setting after the **SMTP > General**.

Item	Description
Recipient Address 1-3	In Recipient Address 1-3, enter recipients' e-mail addresses. You can easily send to multiple recipients by entering a distribution list address.
Event Report Items	For choosing the type of events for notification.
Event Report Interval	Enter the interval for sending notification messages after events occur. Only if errors meeting your chosen conditions occur will a message be sent at the designated interval. You can designate an interval from 1-10000 minutes.
Scheduled Report Items	Choose one or more items from printer status, network status, or counter status.
Scheduled Report Interval	For designating the timing and interval for sending status information. <ul style="list-style-type: none"> None: No reports are sent. Monthly: Reports are sent monthly on the designated day. Weekly: Reports are sent weekly on the designated day. Daily: Reports are sent daily at the designated hour. Hourly: Reports are sent hourly according to the designated interval. <p>If you designate a day of the month such as 31 that does not exist in the current month, the setting is treated as if you had designated the last day of the month.</p>
Run once now	Click the Send button to send an event report and scheduled report to the address designated in Recipient Address, regardless of the interval setting.

5-10. Management/E-mail > POP3 > General

The IB-23 can receive the print data in e-mail attachments and print it. POP3 is used for this feature. You must configure the POP3 protocol settings before the IB-23 can connect to a POP3 server.

Item	Description
POP3 Protocol	Choose whether POP3 protocol is used (On) or not (Off).
Check Interval	The POP3 server is checked regularly for e-mail messages at the interval you designate. The supported range is 3-60 minutes. By default, the interval is 15 minutes.
Run once now	Click the Receive button to receive any mail on the POP3 server immediately.


5-11. Management/E-mail> POP3 > User (1-3)

For configuring user and password settings to print from e-mail. You can enter up to 3 user accounts. Additionally, you can restrict printing of received e-mail messages depending on the file size and the content of Subject, To, Cc, and From. It is also possible to print file attachments.

Item	Description
User 1-3	Choose On or Off in this setting to enable or disable e-mail deliveries to that user.
E-mail Address	Enter the e-mail addresses of users 1-3.
POP3 Server Name	Designate the POP3 server name (up to 78 characters). Enter the domain name or IP address.
Test	Click the Test button to confirm that the user accounts are correctly configured.
POP3 Port Number	For designating the POP3 port number. Use port number 110 .
Login User Name	Designate the user account login name (up to 64 characters).
Login Password	Designate the password for this account (up to 31 characters).
Use APOP	Choose whether APOP protocol is used (On) or not (Off). Enable this setting (On) when connecting to mail servers that support APOP.
Delete e-mail after retrieval	Choose whether or not to delete messages from the server after they are received.
E-mail Size Limit	For designating the maximum size of messages that can be received. Messages over the designated size are not received. Even if you have chosen to delete messages from the server, these unreceived messages are not deleted. If you prefer not to restrict reception, designate 0 as the size.
Filter Setting	<p>You can designate strings to filter messages (up to 255 characters). Create filter strings using the following prefixes.</p> <ul style="list-style-type: none"> ■ S: Filter by Subject ■ T: Filter by To ■ C: Filter by Cc ■ F: Filter by From <p>To filter by any of several conditions (OR), separate strings with " ". To filter by several conditions (AND), all of which must be met, separate strings with "&". For example, to print only messages with a subject of "Service" or "Technical", use "S:Service S:Technical".</p>
Cover Page	When you have set up printing from e-mail, designate whether or not to print the message body as well. Choose On to add a cover page when printing messages. If there is text in the message body, it will be printed as the cover page. Choose Off to print file attachments only. If there is no file attachment, nothing is printed.

5-12. Management/E-mail > SNMP > General

The SNMP protocol is used to transfer administrative information across a network. You can choose between SNMPv1/v2c or SNMPv3.

 Utilities that use a management information base (MIB) may not operate if SNMPv3 is turned on. In this situation, turn SNMPv3 off and set SNMPv1/v2c to **On** or **Read Only**.

Item	Description
SNMPv3	Enables (On) or disables (Off) SNMPv3. The SNMPv3 protocol provides security using DES encryption and MD5/SHA authentication. When SNMPv3 is on, set SNMPv1/v2c to Read Only or Off .

User Name	Enter the username used by SNMPv3. Maximum of 32 single-byte characters.
Authentication Protocol	You can choose between MD5 and SHA.
Authentication Password	Enter the password for authentication. Enter between 8 and 32 single-byte characters.
Privacy Password	Enter the password for encryption. Enter between 8 and 32 single-byte characters.
SNMPv1/v2c	SNMPv1/v2c can be set to enabled (On), Read Only , or disabled (Off). Turn SNMPv3 off if this setting is set to On .
Read Community	This is used to read device information. The default read community string is public. The correct read community needs to be entered for an administration utility to send an SNMP request to read a value, otherwise the IB-23 will reject the request.
Write Community	This setting functions similarly to the read community setting except that it is used for SNMP requests to write values.
sysContact	This is the MIB-II sysContact object, which typically contains the email address of the network administrator.
sysName	This is the MIB-II sysName object, which typically contains the host name or domain name of the IB-23.
sysLocation	This is the MIB-II sysLocation object, which typically contains information about the location of the IB-23.
HP Web Jetadmin Compatibility	Enables (On) or disables (Off) compatibility with HP Web Jetadmin.

5-13. Management/E-mail > SNMP > Trap

If you are using the SNMP protocol and an error such as paper out occurs, the IB-23 generates a trap and sends it to the trap recipients. You can setup two trap recipients. The setting details are the same for both recipients.

Item	Description
Authentication Traps	Enables (On) or disables (Off) the MIB-II EnableAuthenTrap object. If this setting is enabled (On), an SNMP trap is generated if an attempt is made to read or write using an invalid community string. The trap is sent to the contained trap address.
Trap Community	The SNMP trap community string used when the IB-23 generates a trap.
Trap IP Address	The IP address that receives traps.
Trap IPX Address	The IPX address that receives traps.
Selected Errors	Select the events that generate traps from Low Toner , Add Toner , Paper Jam , Add Paper , Cover Open , and All Other Errors .

5-14. Management/E-mail > Maintenance

A printer maintenance request mail can be sent periodically to a specified address.

Item	Description
Equipment ID	You can specify any arbitrary number as the system ID number. Enter up to a maximum of 15 single-byte characters.

Recipient Address	Enter the email address of the recipient of the mail.
Subject	Enter the subject line of the mail.
E-mail Interval	<p>For designating the interval for sending maintenance notifications.</p> <ul style="list-style-type: none"> ■ None: No maintenance notifications are sent. ■ Monthly: Notifications are sent monthly on the designated day. ■ Weekly: Notifications are sent weekly on the designated day. ■ Daily: Notifications are sent daily at the designated hour. ■ Hourly: Notifications are sent hourly according to the designated interval. <p>If you designate a day of the month such as 31 that does not exist in the current month, the setting is treated as if you had designated the last day of the month.</p>
Run once now	Click the Send button to immediately send maintenance notifications to the mail addresses specified in the recipient addresses without waiting for the e-mail interval.

5-15. Security > Account Setup

Refer to [3-2. Security](#).

5-16. Security > Encryption > General

Communication between the PC and IB-23 is encrypted using the SSL protocol.

Item	Description
Authentication	Enables (On) or disables (Off) encryption.
Privacy Mode	<p>Select the encryption scheme from the following choices.</p> <ul style="list-style-type: none"> • All • ARCFour-128 • DES-56 • 3DES-168 • AES-128 • AES-256

5-17. Security > Encryption > Certificate

This page contains settings related to certificates used for encryption.

Item	Description
	Country/Region code Enter a two character code that represents the country (region) where the user resides. Examples: Japan = JP, United States = US
	State/Province Enter the state or province where the user resides. Example: Tokyo

Certificate Information	City/Locality	Enter the city or locality where the user resides. Example: Setagaya
	Organization	Enter the organization to which the user belongs. Example: Kyocera Mita Corporation
	Organization Unit	Enter the unit within the organization to which the user belongs. Example: Sales
	Common Name	Enter an arbitrary name to represent the printer. Example: Sales-PRINTER
	E-mail Address	Enter the e-mail address. Whitespace is allowed.
	Issue Date	Displays the date that the certificate was issued.
	Expiration Date	Specifies the expiration date of the certificate.

5-18. Information > Contacts

Contact information can be registered for support. This is a convenient setting for entering contact information of the dealer or service center, for example.

Item	Description
Title 1 to 4	For designating the title. Enter up to 31 single-byte characters. If a field is left blank, the next title is applied. Title 1: Dealer; Title 2: Supplies; Title 3: Service; Title 4: Technical Support
Company	Sets the company name. Enter up to 31 single-byte characters.
Account #	Sets the account number. Enter up to 31 single-byte characters.
Address	Sets the address. Enter up to 31 single-byte characters.
Website	Sets the URL. Enter up to 31 single-byte characters.
Contact	Sets the contact information. Enter up to 31 single-byte characters.
Phone	Sets the telephone number. Enter up to 15 single-byte characters.
FAX	Sets the fax number. Enter up to 15 single-byte characters.
Cellular phone	Sets the mobile telephone number. Enter up to 15 single-byte characters.
E-mail	Sets the e-mail address. Enter up to 31 single-byte characters.

6. Troubleshooting

If problems occur when using the COMMAND CENTER, investigate the following items and take the appropriate action. If the problem persists, contact your dealer or an authorized service center.

Problem	Check point	Action
Cannot access the COMMAND CENTER	Is the network cable connected correctly?	Connect the network cable correctly.
	Is the IP address of the IB-23 entered correctly?	Enter the correct IP address. Ask the network administrator to verify that the IB-23 is configured with the correct IP address.
	Are the web browser settings correct?	If the web browser connects via a proxy server, check the proxy settings. For details, see the web browser Help.
	Has the administrator set up an IP Filter function?	Access the COMMAND CENTER from an approved IP address.
	Is the web browser version supported by the COMMAND	Use a web browser verified to work with the COMMAND CENTER.

	CENTER?	
The text of the COMMAND CENTER does not display properly	Is the web browser version supported by the COMMAND CENTER?	Use a web browser verified to work with the COMMAND CENTER.
Cannot access the Basic Page, Printer Page, or Advanced Page	Has the administrator set a password? If so, you must enter it.	Enter the correct administrator password.
The settings I made are not registered	Did you click the Submit button, after entering the settings?	After making the desired settings of IB-23, click the Submit button.
I forgot the administrator password		The administrator password can be cleared by restoring the IB-23 settings to the factory default settings using the procedure described in Resetting to Factory Defaults .

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E-mail Reports via SMTP (Simple Mail Transfer Protocol)

The IB-23 SMTP support enables the printer to send a variety of error and status reports via e-mail to selected recipients.

This section covers the following topics:

Configure the SMTP Connection

[Establish Connection to the SMTP Server](#)

[Define Basic SMTP Settings](#)

[SMTP Authentication](#)

E-mail Reports

[Error Notification](#)

[Scheduled Reports](#)

Configure the SMTP Connection

This section explains how to define the SMTP server connection and other items common to all e-mail reports.

1. Launch a web browser.
2. In the address bar, enter the IP address assigned to the IB-23.
3. After the browser displays the IB-23 COMMAND CENTER, click the **Advanced** tab.
4. In the left menu of the COMMAND CENTER, click **SMTP > General**.

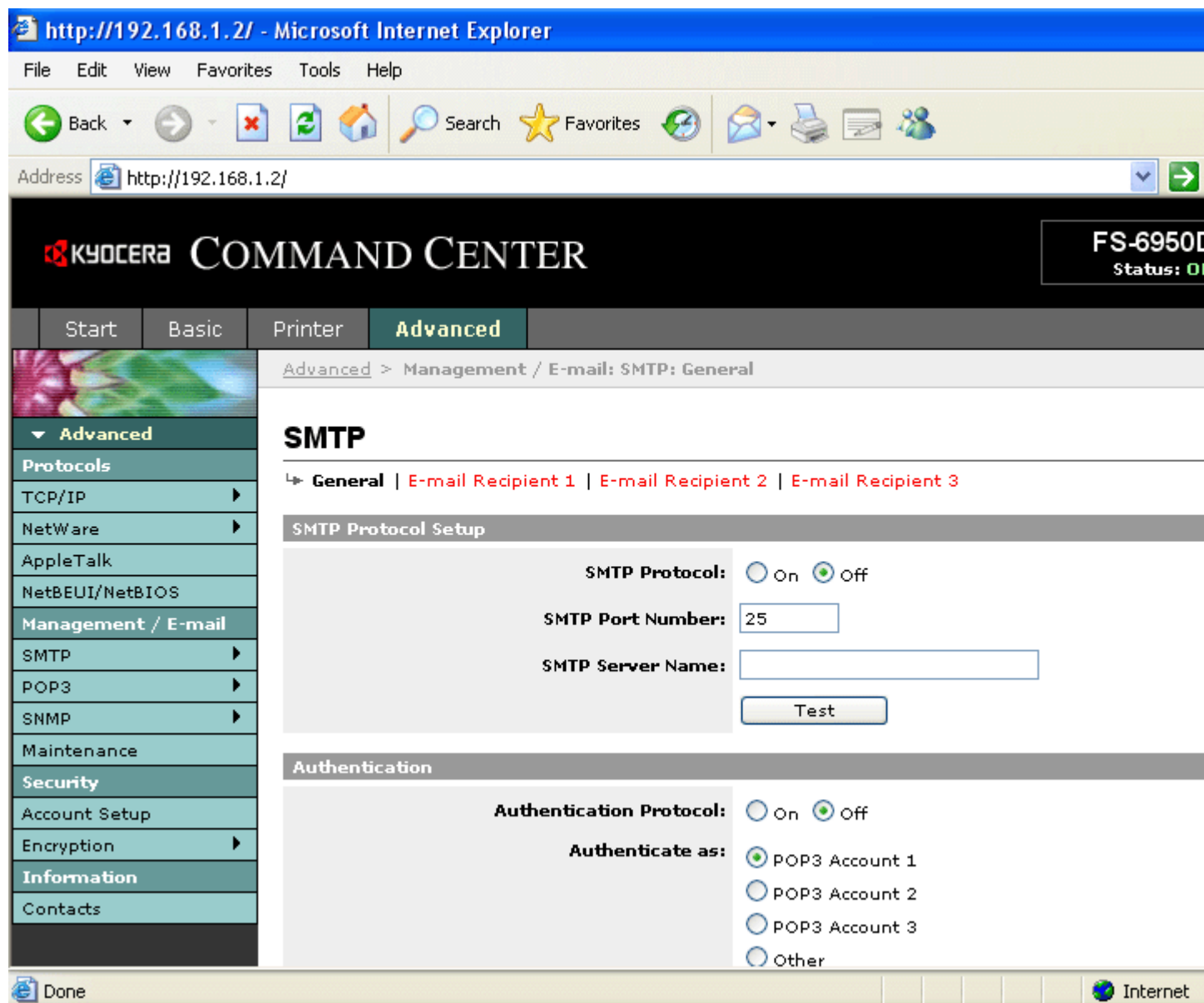


Figure 1. SMTP General Page

Establish Connection to the SMTP Server

1. Enable the **SMTP Protocol**.
2. Set the **SMTP Port Number** or use the SMTP default port 25.
3. In **SMTP Server Name**, enter the server name or IP address. When using a server name instead of an IP address, you must designate the DNS server address. Enter it in the DNS server setting by clicking **TCP/IP > General** in the left menu.
4. Click the **Test** button to check for a successful connection to the SMTP server. If the test fails, double check the IP address or name and DNS settings. Also consider firewall issues and see [SMTP Authentication](#) below.

Define Basic SMTP Settings

1. Enter the **Sender Address**. The sender address is often set to the address of the person responsible for the printer, such as the printer administrator, so that a reply or non-delivery report will go to a person rather than to the printer.
2. Enter the **Subject**. The subject is the text that will appear in the subject line of all e-mails sent from the printer. Any

text in combination with the available conversion strings may be entered. By using the subject shown in Figure 2, all e-mails from this printer would have the following subject line, "Reports from FS-6950DN Page Printer".

3. Enter the **Signature**. The signature is free form text that will appear at the end of the e-mail body. It is often used for further identification of the printer.

E-mail Settings

Sender Address: administrator@widgets.com

Subject: Reports from %printer Page Printer

Subject Conversion Strings

- %printer = Model
- %serial = Serial Number
- %etheraddr = MAC Address
- %host = Host Name
- %ip = IP Address
- %status = Printer Status

Signature: IB-23
[00:C0:EE:14:00:87]

Figure 2. Basic SMTP Settings

SMTP Authentication

The authentication entries on the SMTP page are used to supply credentials when the SMTP server requires authentication for sending e-mail. If the SMTP server is off-site, such as at an ISP, it will almost certainly require authentication for sending e-mail.

IMPORTANT!

Even when the SMTP server is on-site, authentication may be essential for preventing the SMTP server from becoming an open mail relay. The following discussion relates to Microsoft Exchange, but is generally applicable to other SMTP servers as well.

The printer uses an internal POP3 mail client to send e-mail. By default, Exchange will accept and deliver POP3 e-mail within the organization, however, e-mail from a POP3 client addressed to a recipient outside the organization will be rejected unless routing is enabled. (In Exchange, "Reroute incoming SMTP mail" must be selected to enable POP3 routing.) Once routing is enabled, Exchange will reroute SMTP mail from anywhere to anywhere. This creates a situation in which the SMTP server may be abused, such as someone sending large quantities of spam e-mail. One method to prevent the SMTP server from becoming an open mail relay is to route e-mail only from authenticated clients. (In Exchange this is set under routing restrictions.)

To supply authentication credentials to the SMTP server:

1. Enable **Authentication Protocol** by selecting **On**.
2. In **Authenticate as**, choose the desired user. Select a POP3 user (for receiving e-mail messages) to use the login name and password designated on the POP3 page for SMTP authentication. Otherwise, select **Other** if the POP3 page does not designate the POP3 login information, or if another login name and password will be used.
3. If you select **Other** in **Authenticate as**, enter the login user name and password for SMTP authentication.
4. Click **Submit**.

Authentication

Authentication Protocol: ☒ On ☐ Off

Authenticate as: ☐ POP3 Account 1
☐ POP3 Account 2
☐ POP3 Account 3
☒ Other

Login User Name: widgets.com/pusr/administrator

Login Password: *****

Figure 3. SMTP Authentication

E-mail Reports

A variety of report types are available. See the following sections for descriptions of the various report types:

[Error Notification](#)
[Scheduled Reports](#)

Error Notification

The printer can be configured to send e-mail notifications whenever any error conditions occur. Setup error notification after [configuring the SMTP connection](#).

1. On the **SMTP General** page, select an **E-mail Recipient** to configure (to the right of General).
2. For **Recipient [#] Address** enter the e-mail address of the intended recipient. Entering a distribution list address is a simple way to send to multiple recipients.
3. Under **Event Reports** check the box for each type of error condition to be reported to the recipient.
4. Enter the **E-mail Interval**. An e-mail will be sent at the end of the interval only when at least one of the selected error conditions has occurred during the interval.

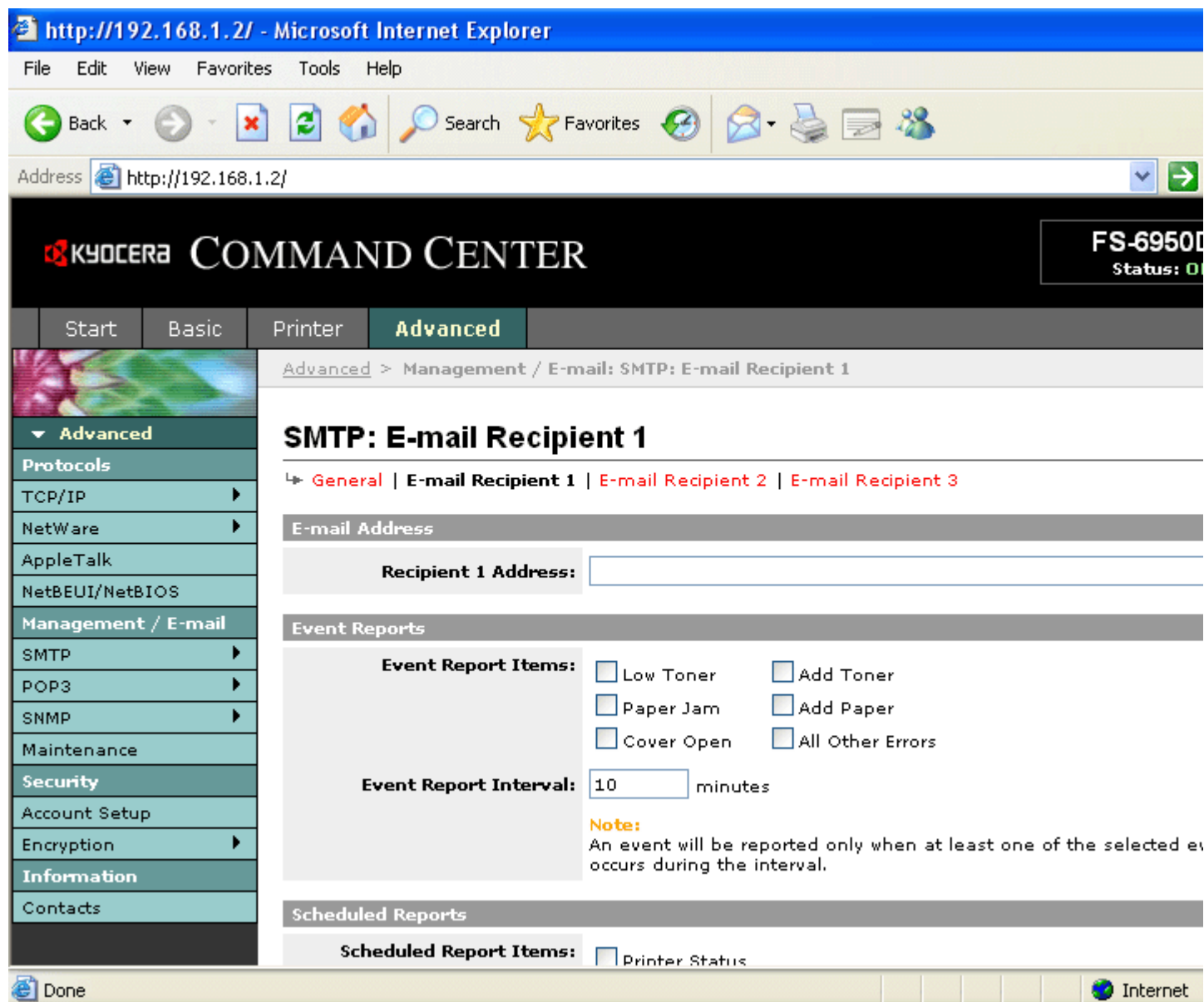


Figure 4. SMTP E-mail Recipient 1

Scheduled Reports

The printer can be configured to send reports on a fixed schedule. Setup Scheduled Reports after [configuring the SMTP connection](#).

1. From the IB-23 COMMAND CENTER, click the **Advanced** tab, and in the left menu, click **SMTP > E-mail Recipient 1**.
2. In **Recipient 1 Address**, enter the recipient's e-mail address. You can easily send to multiple recipients by entering a distribution list address.
3. Choose one or more items in **Scheduled Report Items**.
4. In **Scheduled Report Interval**, choose to send reports monthly, weekly, daily, or hourly.

Note: Monthly, weekly, and daily options are only valid when the printer has access to a network time server. The current time can be set from the **Basic** tab of the COMMAND CENTER, in **Time**.

Scheduled Reports

Scheduled Report Items:
☒ Printer Status
☒ Network Status
☒ Counter Status

Scheduled Report Interval:
Monthly on day 1 of selected months at 8:00 AM
☒ January ☒ February ☒ March
☒ April ☒ May ☒ June
☒ July ☒ August ☒ September
☒ October ☒ November ☒ December

Note:
Events will be reported at the specified interval.

Run once now:

Figure 5. SMTP Scheduled Reports

Information on the items you select in **Scheduled Report Items** will be sent to you as an e-mail attachment following the schedule report.

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SNMP (Simple Network Management Protocol)

The SNMP protocol is used for providing and transferring management information within the network environment. The SNMP protocol is used for communication between the management stations and the agents. The management information is stored in Management Information Bases (MIB).

As a network agent utilizing SNMP, the IB-23 provides the standard MIB-II and a private MIB stored in the interface card. The private MIB stores all interface card parameters and status information.

- [Requirements](#)
 - [Configuring SNMP](#)
-

Requirements

When using SNMP, make sure that:

- The TCP/IP protocol is installed on the PC from which you want to manage the IB-23 via SNMP.
 - The IB-23 is physically installed and the printer is powered on.
 - The IP address has been configured properly for the IB-23.
-

Configuring SNMP

To configure the SNMP settings, you can use a web browser. For details, refer to the section on [Using a Web Browser to Manage the IB-23](#).

1. Launch a web browser.
2. In the address bar, enter the IP address assigned to the IB-23.
3. The web browser displays the IB-23 COMMAND CENTER. Click the **Advanced** tab.
4. In the left menu of the COMMAND CENTER, click **SNMP**, then click **General**.

http://192.168.1.2/ - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites RSS Mail Print

Address http://192.168.1.2/

KYOCERA COMMAND CENTER

FS-6950 Status: OK

Start Basic Printer **Advanced**

Advanced > Management / E-mail: SNMP: General

SNMP

General | Trap

Protocol Settings

SNMPv3: ☐ On ☒ Off

User Name:

Authentication Protocol: ☒ MD5 ☐ SHA

Authentication Password:

Privacy Password:

SNMPv1/v2c: ☒ On ☐ Read Only ☐ Off

Read Community:

Write Community:

General Settings

Done Internet

Figure 1. COMMAND CENTER SNMP Settings Page

5. Complete each field. The fields are described below

SNMPv3	Enables (On) or disables (Off) SNMPv3. The SNMPv3 protocol provides security using DES encryption and MD5/SHA authentication. When SNMPv3 is on, set SNMPv1/v2c to Read Only or Off .
User Name	Enter the username used by SNMPv3. Maximum of 32 single-byte characters.
Authentication Protocol	You can choose between MD5 and SHA.
Authentication Password	Enter the password for authentication. Enter between 8 and 32 single-byte characters.
Privacy Password	Enter the password for encryption. Enter between 8 and 32 single-byte characters.
SNMPv1/v2c	SNMPv1/v2c can be set to enabled (On), Read Only , or disabled (Off). Turn SNMPv3 off if this setting is set to On .
Read Community	This is used to read device information. The default read community string is

	public. The correct read community needs to be entered for an administration utility to send an SNMP request to read a value, otherwise the IB-23 will reject the request.
Write Community	This setting functions similarly to the read community setting except that it is used for SNMP requests to write values.
sysContact	This is the MIB-II sysContact object, which typically contains the email address of the network administrator.
sysName	This is the MIB-II sysName object, which typically contains the host name or domain name of the IB-23.
sysLocation	This is the MIB-II sysLocation object, which typically contains information about the location of the IB-23.
HP Web Jetadmin Compatibility	Enables (On) or disables (Off) compatibility with HP Web Jetadmin.

6. Click **Submit**.
7. Click **Trap**.
8. Fill in each of the fields. A description of each of the fields is given below.

Authentication Traps	Enables (On) or disables (Off) the MIB-II EnableAuthenTrap object. If this setting is enabled (On), an SNMP trap is generated if an attempt is made to read or write using an invalid community string. The trap is sent to the contained trap address.
Trap Community	The SNMP trap community string used when the IB-23 generates a trap.
Trap IP Address	The IP address that receives traps.
Trap IPX Address	The IPX address that receives traps.
Selected Errors	Select the events that generate traps from Low Toner , Add Toner , Paper Jam , Add Paper , Cover Open , and All Other Errors .

9. Click **Submit** to complete the configuration.


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Configuration Using ftp

Ftp may be used for reading the IB-23 configuration and also for modifying the IB-23 configuration.

Why use ftp?

Since the IB-23 can be conveniently configured using a web browser, why use ftp? The primary benefit of ftp configuration is that it offers the ability to easily copy settings from one IB-23 to another. There are many settings that may be exactly the same on multiple IB-23 within an organization, such as IP filters, Contact info, Logical Printers, etc. With a web browser these settings would need to be made individually on each IB-23, however, using ftp the settings can be retrieved from an already configured IB-23 and copied to other IB-23.

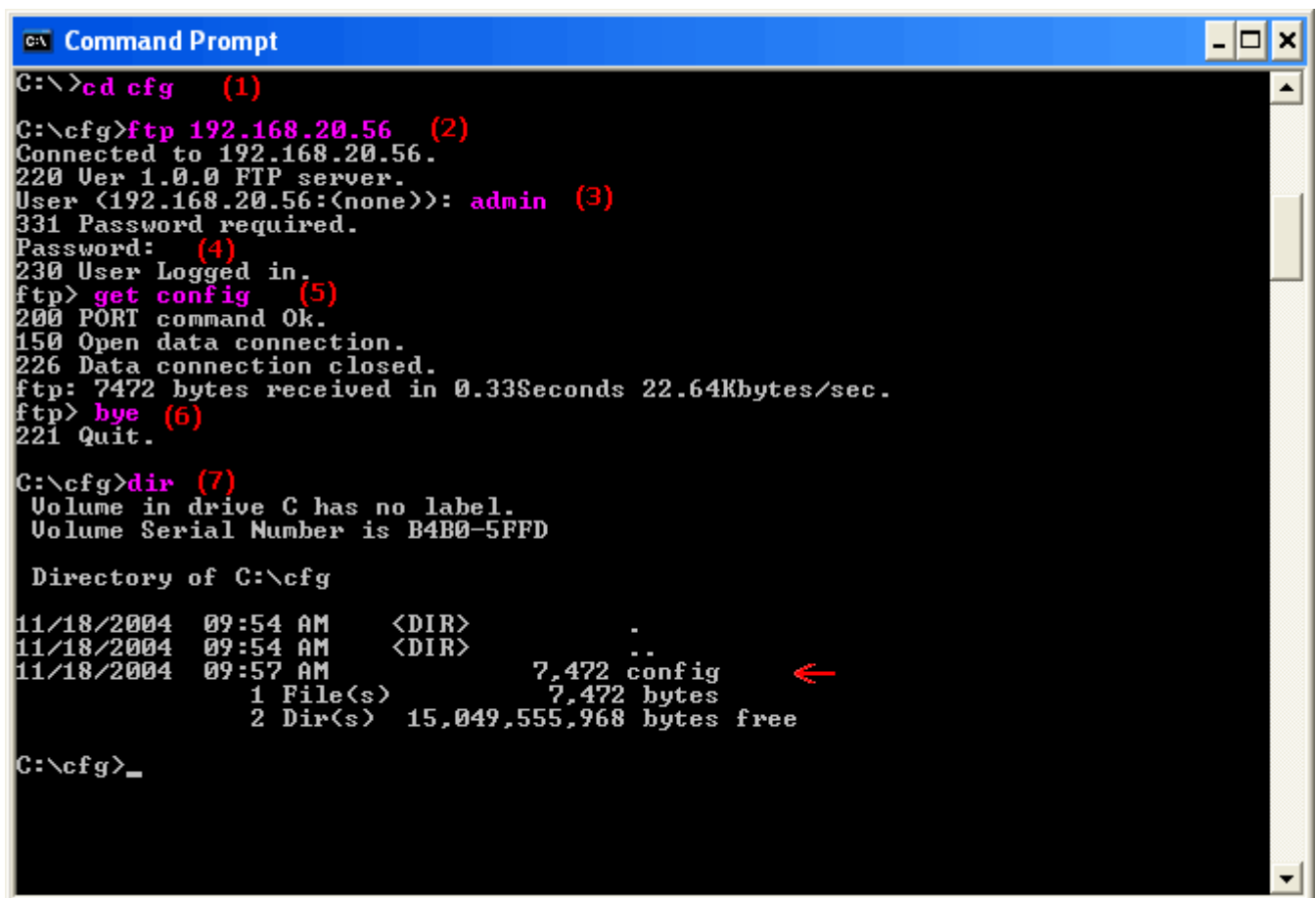
Ftp "Cloning" Example

This example describes the use of ftp to "clone" settings from a source IB-23 to several target IB-23. The IP Filter settings are used in this example, but the procedure is equally applicable to any of the IB-23 settings.

The Windows XP ftp command line is used in this example, however, any OS that supports command line ftp may be used.

Before starting this procedure it is assumed that the IP Filter settings of the source IB-23 have already been configured using a web browser.

Step 1 - Read the Configuration File from the Source IB-23



```
C:\>cd cfg (1)
C:\cfg>ftp 192.168.20.56 (2)
Connected to 192.168.20.56.
220 Ver 1.0.0 FTP server.
User (192.168.20.56:(none)): admin (3)
331 Password required.
Password: (4)
230 User Logged in.
ftp>get config (5)
200 PORT command Ok.
150 Open data connection.
226 Data connection closed.
ftp: 7472 bytes received in 0.33Seconds 22.64Kbytes/sec.
ftp>bye (6)
221 Quit.

C:\cfg>dir (7)
Volume in drive C has no label.
Volume Serial Number is B4B0-5FFD

Directory of C:\cfg

11/18/2004 09:54 AM <DIR> .
11/18/2004 09:54 AM <DIR> ..
11/18/2004 09:57 AM 7,472 config ←
1 File(s) 7,472 bytes
2 Dir(s) 15,049,555,968 bytes free

C:\cfg>_
```

Figure 1. Ftp Session with the Source IB-23

The violet colored text in Figure 1 shows user input. The following directions correspond with the red numbers in Figure 1.

1. Change to the directory that you would like the configuration file to be copied to.
2. Open an ftp session with the source IB-23.
3. Enter **admin** as the User.
4. Enter the Admin password. If the user name and password are verified, the ftp session should respond with "User Logged in."
5. Enter **get config** to read all settings to a file called **config**.
6. Enter **quit** or **bye** to exit the ftp session.
7. A directory listing shows that there is now a file in the current directory called **config**.

```

;;; General ;;;
;Admin Password          = "*****"
;Firmware Update Utility = ENABLE
;LAN Interface           = AUTO

;;; TCP/IP ;;;
TCP/IP Protocol          = ENABLE
Host Name                = "KM123456"
IP Address               = 10.10.10.220
Subnet Mask              = 255.255.255.0
Default Gateway          = 10.10.10.1
DHCP                    = ENABLE
BOOTP                   = ENABLE
RARP                    = ENABLE
ARP/PING                = ENABLE
Bonjour                 = ENABLE
Bonjour Name            = "KM123456"
FTP Status Check        = DISABLE

;;; DNS ;;;
DNS Server (Primary)    = 207.214.73.16
DNS Server (Secondary) = 207.214.140.10
Domain Name             = ""

;;; WINS ;;;
WINS Server (Primary)   = 192.168.1.1
WINS Server (Secondary) = 0.0.0.0
Scope ID               = ""

;;; IP Filter ;;;
IPFILTER1 Start Address = 10.10.10.40
IPFILTER1 End Address   = 10.10.10.55
IPFILTER1 Protocol      = "LPD, FTP, IPP, HTTP, SNMP, RAW Port"

IPFILTER2 Start Address = 10.10.10.55
IPFILTER2 End Address   = 10.10.10.73
IPFILTER2 Protocol      = "LPD"

IPFILTER3 Start Address = 0.0.0.0
IPFILTER3 End Address   = 0.0.0.0
IPFILTER3 Protocol      = ""

```



```

IPFILTER4 Start Address    = 0.0.0.0
IPFILTER4 End Address     = 0.0.0.0
IPFILTER4 Protocol        = ""

IPFILTER5 Start Address    = 0.0.0.0
IPFILTER5 End Address     = 0.0.0.0
IPFILTER5 Protocol        = ""

```

Figure 2. Sample Config File (first 50 lines)

! Note: The Admin password is not written to the config file for security reasons, however, the Admin password can be set using the config file by eliminating the semicolon and entering a password string, for example:

Admin Password = "mypassword"

Step 2 - Modify the Configuration File

All but the desired IP Filter settings are removed from the sample config file. In this cloning example the settings are not modified, instead they are copied from one IB-23 to another. However, it is also possible to edit the settings in the config file and write it back to the source IB-23 and thereby change its settings.

! Note: The config file can be used to create new settings, e.g. add new IP Filters, or to overwrite existing settings, e.g. remove or modify existing IP Filters.

```

;;; IP Filter ;;;
IPFILTER1 Start Address    = 10.10.10.1
IPFILTER1 End Address     = 10.10.10.10
IPFILTER1 Protocol        = "LPD, FTP, IPP, HTTP, SNMP, RAW Port"

IPFILTER2 Start Address    = 10.10.10.1
IPFILTER2 End Address     = 10.10.10.30
IPFILTER2 Protocol        = "LPD, IPP"

IPFILTER3 Start Address    = 10.10.10.30
IPFILTER3 End Address     = 10.10.10.50
IPFILTER3 Protocol        = "LPD, FTP, IPP, HTTP"

```

Figure 3. Modified Config File

Figure 3 shows only the remaining config file commands that will be written to the target IB-23.

Step 3 - Write the Configuration File to the Target IB-23

The procedure for writing the config file to a target IB-23 is exactly the same as the procedure for reading the file in Step 1 except command # 5 is **put config** rather than **get config** (see [Figure 1](#)).

Batch Processing - Writing to Multiple IB-23 Target Printers

The ftp configuration example saves a tremendous amount of time, but still requires manually connecting to each target IB-23. The following procedure shows how to automate sending the config file to a group of printers when using Windows. This procedure requires that all IB-23 have the same Admin password.

1. Create an ftp command file called IB23set.txt with the following lines:

```
user admin mypassword
put config
bye
```

In place of mypassword enter your admin password. When this procedure is completed, it is recommended to remove the password from the file to avoid the risk of a security breach.

2. Create a batch file called IB23set.bat with a line to connect to each target printer as follows:

```
@echo on
ftp -n -s:IB23set.txt 10.10.10.200
ftp -n -s:IB23set.txt 10.10.10.220
ftp -n -s:IB23set.txt 10.10.10.230
```

3. At a command prompt, change to the directory that contains the batch file, the ftp command file, and the config file.

```
C:\>cd cfg
```

4. At a command prompt, run the batch file and re-direct the results to a log file.


```
C:\cfg>IB23set > log.txt
```

Following is a sample log.txt after running this batch file. The log.txt contents show that:
The printer at .200 was unavailable.
The printer at .220 was connected to successfully.
The printer at .230 was not connected to because of an incorrect Admin password.

```
C:\cfg>ftp -n -s:IB23set.txt 10.10.10.200
ftp> Not connected.ftp> user admin mypassword
Not connected.ftp> put config
bye

C:\cfg>ftp -n -s:IB23set.txt 10.10.10.220
Connected to 10.10.10.220 IB-23 Ver 1.0.0 FTP server.
ftp> user admin mypassword
331 Password required.
230 User Logged in.
ftp> put config
200 PORT command Ok.
150 Open data connection.
226 Data connection closed.
ftp: 1209 bytes sent in 0.00Seconds 1209000.00Kbytes/sec.ftp> bye
221 Quit.

C:\cfg>ftp -n -s:IB23set.txt 10.10.10.230
Connected to 10.10.10.230.220 IB-23 Ver 1.0.0 FTP server.
ftp> user admin mypassword
331 Password required.
530 Login incorrect.ftp> put config
200 PORT command Ok.
550 Permission denied.ftp> bye
```



221 Quit.

Figure 4. Sample log.txt File

By using the batch file, it is simple to send a config file with new settings to all IB-23 in the batch file and determine any failures by viewing the log.txt file.

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Troubleshooting

This section provides troubleshooting for common problems you may encounter while setting up and using the IB-23.

Visit the following web site for more information and downloads.

<http://www.kyoceramita.com/>

General

I cannot print to my printer over the network.

- Make sure the computer and the IB-23 can communicate. Try using the ping command, telnet, ftp, etc. In an IPX environment.
- Verify the physical network connections. The network cables may be defective or not properly connected. Try changing the cables. Check the IB-23 and verify that the green link light is on and the red data light is flashing (receiving data).
- Turn the printer off, then on again. Try printing from another PC or to another network printer to help determine if the problem is with the PC or the printer.

I cannot see the IB-23 on the network, or often communication errors occur.

- Verify the physical installation of the IB-23. The network cables may not be properly connected. The network hub may be defective.
- Initialize the IB-23 firmware. See [Resetting to Factory Defaults](#).
- If in a TCP/IP environment, try to directly connect the IB-23 and the PC on an isolated network. Connect only the IB-23 and the PC to a hub, or connect them directly using a crossover 10BaseT cable.

IP Address

How can I assign IP addresses properly?

- The Internet Protocol address is a unique number that represents a specific computer in a network. Format of the IP Address is four numbers separated by dots, e.g. '192.168.110.171.' Each number should be decimal of 0 through 255.
- The IP address is compiled from 'network ID + user ID.' This results in three different IP address 'classes.' Representing the network ID as 'n' and the user ID as 'u,' each class has the following attributes:

Class	IP Addressing	First Segment Range	Application	Number of Networks	Number of Users
A	n.u.u.u	0<n<127	Large scale network	126	16,777,214
B	n.n.u.u	128<n<191	Mid scale network	16,384	65,634
C	n.n.n.u	192<n<223	Small network	2,097,150	254

For example, in a class C network, you can assign an IP address as '192.168.40.1.'

- Devices having IP addresses with different network IDs ('n' above) cannot communicate even when they are in the

same network segment.

Following is an example of a Class C IP network with 3 computers and 1 IB-23:

Computer A	192.168.40.1
Computer B	192.168.40.2
Computer C	192.168.40.10
IB-23 printer	192.168.40.20

DHCP/BOOTP

The IP address changes unintentionally on my IB-23.

- If the IB-23 received its IP address from a DHCP or BOOTP server, its lease may have expired and a new IP address assigned. To assign the IP address to a particular printer, access the COMMAND CENTER (the IB-23's internal webpage) and click Off-radio buttons in the **DHCP** and **BOOTP**. For more information, see the [Using DHCP](#) section in Setting the IP Address Information.
- To avoid unauthorized changes of the IB-23 settings, including from a browser, it is recommended that you define an administrator password. To change the password from a web browser:
 1. Launch a web browser.
 2. In the address bar, enter the IP address assigned to the IB-23.
 3. The web browser displays the IB-23 COMMAND CENTER. Click the **Basic** tab.
 4. Click **Security** in the menu on the left side. The webpage for basic account settings is displayed.
 5. If a password has been set, enter it.
 6. Enter a new password.
 7. Enter the same new password again to confirm it.
 8. Click **Submit**.

Note: Note and retain the password.

NetBEUI vs. KPrint Port Printing

I frequently receive errors when printing with NetBEUI. Why?

- Use of the NetBEUI protocol provides a convenient method for initial networking setup of the IB-23. However, NetBEUI is not designed to manage timeouts while receiving print data. This may cause errors when the IB-23 is receiving multiple print jobs.
- In network environments supporting TCP/IP, create the KPrint Port for the printer connection and use peer-to-peer printing. For instructions on creating the KPrint Port, refer to [Windows Printing - TCP/IP](#).

Macintosh Printing

Printing fails with Macintosh.

- Open the **AppleTalk** control panel from the Chooser. Make sure **Ethernet** is selected and the appropriate zone is selected as the current zone.
- If the red DATA indicator on the back of the IB-23 continues lighting, try adding the following command in the IB-23

End of Job String field. To access the End of Job String in the browser:

1. Connect to the IB-23 home page, e.g. <http://192.168.40.17>
2. Select **Printer Control** and enter the following command in the **End of Job String**: \x04

Resetting to Factory Defaults

How can I reset all IB-23 settings back to their factory default values?

With a browser:

1. Access the IB-23 webpage.
2. On the **Basic** tab, click **Reset**. Click **Set All Network settings to Factory Default**.

With the jumper arrangement:

If you are unable to communicate with the IB-23, it may be reset to factory defaults by changing the onboard jumper arrangement. Proceed as follows:

1. Turn printer power off.
2. Remove the IB-23 from the printer.
3. Locate the jumper terminals on the board. Note the normal position of the jumper in reference to the terminals.

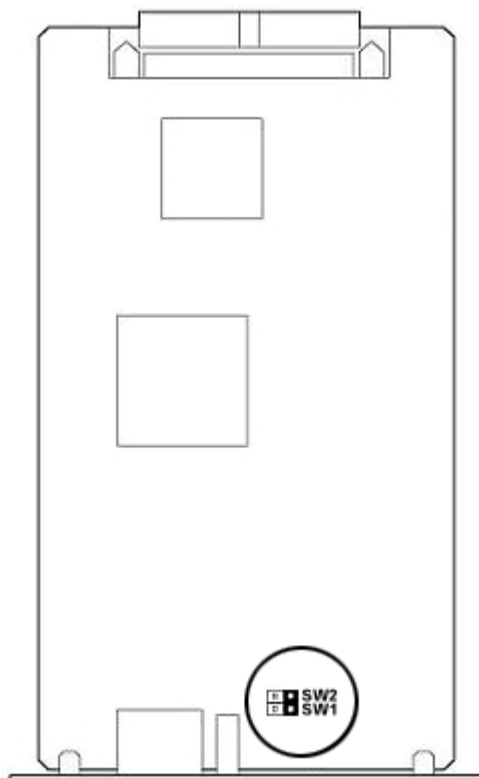
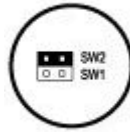


Figure 1. Jumper Terminal (Normal Position)

4. Remove and fit the jumper so that the pins of terminal SW2 are short-circuited.

**Figure 2. Resetting Position**

5. Install the IB-23 in the printer.
6. Power up the printer.
7. Turn printer power off.
8. Remove the IB-23 from the printer.
9. Remove the jumper from SW2 and reset it to the normal position as shown in **Figure 1** above.
10. Insert the IB-23 in the printer.

The above procedure reinitializes all of the IB-23 settings.

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