

IBM Infoprint Manager for Windows NT and
Windows 2000



Getting Started

Version 1 Release 1

IBM Infoprint Manager for Windows NT and
Windows 2000



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Version 1 Release 1

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About This Publication

This publication helps you install and configure IBM® Infoprint® Manager for Windows NT® and Windows® 2000. It focuses primarily on server and client system software configuration, but it also includes information for the IBM 4159 Model 001 S/390® Parallel Channel Emulator Card.

Audience

This document is for the administrator who installs and configures an Infoprint Manager environment.

Most Recent Information

This document is available on the World Wide Web at <http://www.ibm.com/printers>. Follow the Infoprint Manager link (under **Resources For**) to the Infoprint Manager for Windows NT and Windows 2000 site and then go to **Product Library** and select **Getting Started**.

IBM will update the web version of this document regularly. You can download it in **PDF** format. Consult <http://www.ibm.com/printers> for the latest information on Infoprint Manager and other products from IBM Printing Systems.

Part 1. Getting Started with Server Systems

Chapter 1. Preparing to Install Infoprint Manager Software

Before you perform any of the steps documented in this publication, you must understand the general features and requirements of IBM Infoprint Manager for Windows NT and Windows 2000. You can find this information in *IBM Infoprint Manager for Windows NT and Windows 2000: Planning Guide*. Consult this publication before proceeding with your installation.

You should perform all network configuration before installing and configuring Infoprint Manager. See “Configuring TCP/IP” on page 4 for procedures for TCP/IP configuration.

If you plan to use PSF Direct to print from remote host systems (such as MVS™, AS/400®, or OS/390®), consult the *PSF Direct Configuration Guides* to establish communication between this Windows NT/Windows 2000 system and remote hosts. The *PSF Direct Configuration Guides* are available on the World Wide Web at <http://www.ibm.com/printers> by following the Infoprint Manager link (under **Resources For**) to the Infoprint Manager for Windows NT and Windows 2000 site and then going to **Product Library** and selecting **PSF Direct Configuration Guides**.

Note: When you use IBM Infoprint Manager for Windows NT and Windows 2000 to drive one or more high-speed printers, performance may be improved if you install it in a separate partition, on a separate hard drive, or with a SCSI drive. .

Infoprint Manager CD-ROMs

All distributions of IBM Infoprint Manager for Windows NT and Windows 2000 include the following CD-ROMs:

IBM Infoprint Manager for Windows NT and Windows 2000: Server

Contains all software for establishing an Infoprint Manager server on a Windows NT/Windows 2000 system. This includes the server software itself as well as the Infoprint Manager graphical user interfaces (GUIs) for administering and overseeing print operations from remote systems and the Infoprint Manager Notifications program, which enables remote systems to receive messages from the Infoprint Manager server.

IBM Infoprint Manager for Windows NT and Windows 2000: Client

Contains the Infoprint Select software to enable job submission from remote clients to the Infoprint Manager server; contains the Infoprint Manager GUI software for administering and overseeing print operations from remote systems; contains the Infoprint Manager Notifications program, which enables remote systems to receive messages from the Infoprint Manager server; and the AFP™ Printer Driver for Windows.

IBM Infoprint Manager for Windows NT and Windows 2000: Publications

Contains PDF versions of all product documentation. To browse the information on this CD-ROM, simply insert the disc in the drive. It will automatically launch your default browser to view an HTML index of available publications. (For the most recent versions of these publications, go to <http://www.ibm.com/printers>.)

IBM AFP Font Collection: Fonts for AIX®, OS/2®, Windows NT, and Windows 2000

Contains a number of AFP fonts for use with Infoprint Manager. Installation instructions are in the README files on the CD-ROM.

In addition, you may receive the IBM AFP Font Collection: International Fonts for AIX, OS/2, Windows NT, and Windows 2000 CD-ROMs. This set of four CD-ROMs provides a wide range of font resources for various languages.

Configuring TCP/IP

You may need to configure your Windows system to communicate with other computers or printers on one or more networks. The following worksheets are designed to help you with this configuration.

Planning for a LAN Connection

First, connect your Windows NT/Windows 2000 systems to your local area network (LAN). You can perform this task when you install Windows NT/Windows 2000 or after you finish the installation. In either case, you may find it useful to complete the following worksheet ahead of time for each system that is new to your LAN.

Note: This worksheet is specifically designed for use with Windows NT, but it may be useful for TCP/IP configuration on all Windows systems.

Table 1. LAN TCP/IP Configuration Worksheet

Control Panel Prompt	Description	Value
Computer Name	The (NetBIOS) name of this computer on the Windows network.	
Domain/Workgroup	The group of Windows computers to which this computer belongs.	
Adapter	The physical card used to connect this system to the network. An appropriate driver for this card may need to be added.	
Obtain IP address from DHCP server?	The Dynamic Host Configuration Protocol (DHCP) provides a new IP address for this system each time it is restarted. If DHCP is not in use, a static IP address must be assigned.	<input type="checkbox"/> yes <input type="checkbox"/> no
IP Address	A dotted-decimal address (for example, 9.99.178.17) statically assigned to this system. Not needed if DHCP is in use.	
Subnet Mask	A dotted-decimal number (for example, 255.255.255.0) indicating which part of the IP address identifies the network and which part identifies the system. Not needed if DHCP is in use.	

Table 1. LAN TCP/IP Configuration Worksheet (continued)

Control Panel Prompt	Description	Value
Default Gateway	The system used by default to allow this network to communicate with other networks. Not needed if DHCP is in use.	
DNS Host Name	The (Internet) name of this system recognized by the Domain Name System (DNS). If possible, this name should be the same as the Windows computer name.	
DNS Domain	The Internet domain to which this computer belongs.	
DNS Service Search Order	An ordered list of IP addresses of DNS servers. These systems are queried to resolve Internet names into IP addresses.	
Domain Suffix Search Order	An ordered list of TCP/IP domains to search for a given host name.	
Primary WINS Server	The first Windows Internet Name Service (WINS) system to query to resolve a Windows (NetBIOS) system name into an IP address.	
Secondary WINS Server	The second WINS system to query.	
Enable DNS for Windows Resolution?	DNS may be used to resolve Windows (NetBIOS) names into IP addresses.	<input type="checkbox"/> yes <input type="checkbox"/> no
Enable LMHOSTS Lookup?	LMHOSTS files statically associate Windows system names to IP addresses.	<input type="checkbox"/> yes <input type="checkbox"/> no
Scope ID	The set of IP addresses assignable for a Windows domain is called a <i>scope</i> .	
Enable IP Forwarding?	IP Forwarding allows data to be forwarded on a multi-homed system.	<input type="checkbox"/> yes <input type="checkbox"/> no

Planning for a Printer Network Connection

You may wish to create a separate network of printers with higher bandwidth connectivity. In this case, you must configure an additional network adapter on each IBM Infoprint Manager for Windows NT and Windows 2000 server system that controls printers on the independent printer network. Use the following worksheet to assist in this configuration.

Note: This worksheet is specifically designed for use with Windows NT, but it will assist you in performing the necessary TCP/IP configuration on all Windows systems.

Table 2. Printer Network TCP/IP Configuration Worksheet

Control Panel Prompt	Description	Value
Adapter	The physical card used to connect this system to the printer network. An appropriate driver for this card may need to be added.	
IP Address	A dotted-decimal address (for example, 9.99.178.17) statically assigned to this system on the printer network. Required for printer network participation.	
Subnet Mask	A dotted-decimal number (for example, 255.255.255.0) indicating which part of the IP address identifies the network and which part identifies the system. Required for printer network participation.	
Default Gateway	The printer network should not require communication with another network. All communication with the printers is mediated by Infoprint Manager.	none

Preparing to Reinstall

At some point, you may need to reinstall Infoprint Manager. You might be upgrading to a new version or reinstalling the current version because of a problem. Try to install *without* uninstalling first, so that your configuration information is not lost. If that does not work, you uninstall and reinstall using the same installation directory. When you do, the objects you created will still exist, but any post-installation configuration, especially in multi-server environments, will probably be lost.

Chapter 2. Installing Infoprint Manager Server Software

Loading the IBM Infoprint Manager for Windows NT and Windows 2000 software is easy:

1. Log in as the Administrator user.
2. Insert the gold IBM Infoprint Manager for Windows NT and Windows 2000: Server CD-ROM into your CD-ROM drive. The license agreement displays.
3. Click the **Accept** button.
4. The IBM Infoprint Manager for Windows NT and Windows 2000 Setup welcome screen displays.
5. Click the **Next** button.
6. Provide the information as prompted by InstallShield.
7. If prompted to do so, restart your Windows system.

The following software components are installed on your system after you complete the installation of Infoprint Manager:

- Infoprint Manager server software
- Infoprint Manager Management Console
- Infoprint Manager Administration GUI
- Infoprint Manager Operations GUI
- Infoprint Select
- Infoprint Notification Server
- Infoprint Manager Notifications

In addition, the Infoprint Manager service starts. (The system is configured to start the Infoprint Manager service automatically whenever you reboot the system.)

IBM strongly recommends that you verify the connection from your IBM Infoprint Manager for Windows NT and Windows 2000 server system to an actual destination. To do this, you must first create an actual destination as described in "Chapter 6. Creating an Actual Destination" on page 31.

Installing on Non-English Operating Systems

IBM Infoprint Manager for Windows NT and Windows 2000 detects what language your operating system runs in by checking the Regional Settings of your system. When possible, message files, such as server and destination log messages and error messages, that match that language are loaded. When the messages are not available in the same language, English message files are installed. However, if non-English message files are installed and you then change the Regional Settings to **English (U.S.)**, you will receive some, but not all, of your messages in English. IBM recommends that you do not change the Regional Settings after you have installed Infoprint Manager.

Specifying Your Language for the Infoprint Manager Server with the Windows 2000 Multi-Language Version System

Use the following procedure to specify your country's language for the Infoprint Manager Server when you are using the Windows 2000 Multi-Language Version (MLV) System:

1. On the system that your Infoprint Manager Server runs on, open the Infoprint Manager Management Console¹ and select **File—>Stop Server**.
2. Set up a new domain user account that the Infoprint Manager service will run under as follows:
 - a. Log on to the domain that Infoprint Manager operates in as a domain administrator.
 - b. Use **User Manager for Domains** to create a domain user account that Infoprint Manager will run under.

Important: Make the user a member of the **Domain Administrators** group and change the user's primary group from **Domain Users** to **Domain Administrators**. It is recommended that you select **Password never expires** so you don't have to change the password and update all of your servers on a regular basis.
 - c. Give the domain user the following user rights: **Act as part of the operating system, Create permanent shared objects, and Log on as a service**.
3. Log off of the domain.
4. Grant the same user rights to the new domain user on the system that Infoprint Manager is installed on as follows:
 - a. Log on to the system that the Infoprint Manager is installed on as a user who is a member of the **Domain Administrators** group.
 - b. Use the local **User Manager** to give the domain user that you created in 2 the following user rights on that system: **Act as part of the operating system, Create permanent shared objects, and Log on as a service**.
5. Log off of the system.
6. Change the regional settings for the new domain user to the appropriate language as follows:
 - a. Log on to the system as the domain user you created in 2.
 - b. Select **Start—>Settings—>Control Panel**.
 - c. Double-click the **Regional Settings** icon.
 - d. Select the appropriate language.
 - e. Click **OK**.
7. Log off of the system.
8. Log on as a user who is a member of the **Administrators** group for that system and do the following:
 - a. Open the Infoprint Manager Management Console and select **Edit—>Service Account/Domain**.
 - b. Enter the name of the domain that the Infoprint Manager is installed on and the user name and password from 2.
 - c. Click **OK**.

1. To start the Infoprint Manager Management Console, open the **Start** menu and click **Programs—>IBM Infoprint Manager—>Management Console**.

9. On the system that your Infoprint Manager Server runs on, open the Infoprint Manager Management Console and select **File**—>**Start Server**.

Requesting the Latest Information and Fixes for Infoprint Manager for Windows NT and Windows 2000

To request the latest information and fixes for Infoprint Manager for Windows NT and Windows 2000, use a web browser and go to the following ftp site:

`ftp://ftp.software.ibm.com/printers/products/infoprint/fixes/nt`

Note: This ftp site is valid for all countries.

In order to obtain additional support for Infoprint Manager for Windows NT and Windows 2000, you need to purchase a support contract. Please contact your local marketing team for more information on how to obtain this support. Terms and conditions for support vary by country and geography.

If you are in the U.S., you may call 1-888-426-4343 to set up a SupportLine contract for Infoprint Manager for Windows NT and Windows 2000. After a SupportLine contract is established, you may request technical assistance by calling 1-800-237-5511. When you call this number, you will be asked to provide your customer number, operating system (NT or 2000), name of the failing product (Infoprint Manager for Windows NT and Windows 2000), and a brief description of the problem. Please have this information available when you place a call for technical assistance.

Chapter 3. Installing Necessary Hardware

It may be necessary to install and configure some additional hardware to enable communication between your Infoprint Manager server systems and your printing devices.

The IBM 4159 Model 001 S/390 Parallel Channel Emulator Card

If you are not planning to use channel-attached printers, you can go to the next section.

In addition to a description of the IBM 4159 card, this section contains the following information:

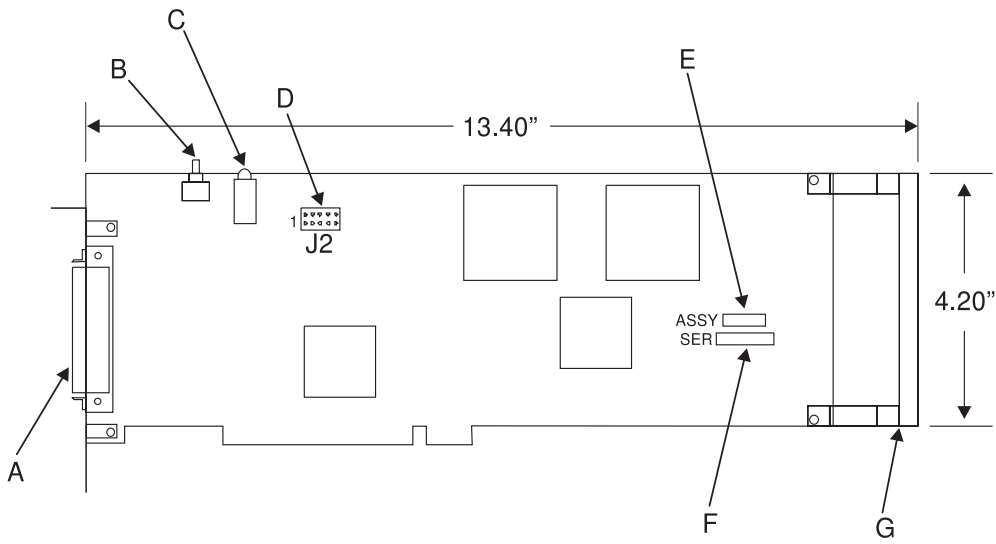
- “Preparing to Install the IBM 4159 PCI Card” on page 15 describes the steps to recreate the IBM 4159 diagnostics diskette if it has been misplaced.
- “Installing the IBM 4159 Model 001 S/390 Parallel Channel Emulator Card” on page 15 describes the procedure for installing the IBM 4159 that includes the following topics:
 - “Attaching the Bus/Tag Interface cable” on page 16
 - “Testing the Card” on page 17
 - “Installing More Than One IBM 4159 Card” on page 19
 - “Testing the Printer Connection” on page 19

Note: Read and follow the information about installing the card in the order that it is presented.

The IBM 4159 Model 001 S/390 Parallel Channel Emulator Card is a single board solution for connecting PCI-based Windows systems to S/390 channel-attached control units equipped with an IBM plug-compatible bus/tag interface. The IBM 4159 card is for use with IBM Infoprint Manager for Windows NT and Windows 2000, Version 1.1, only.

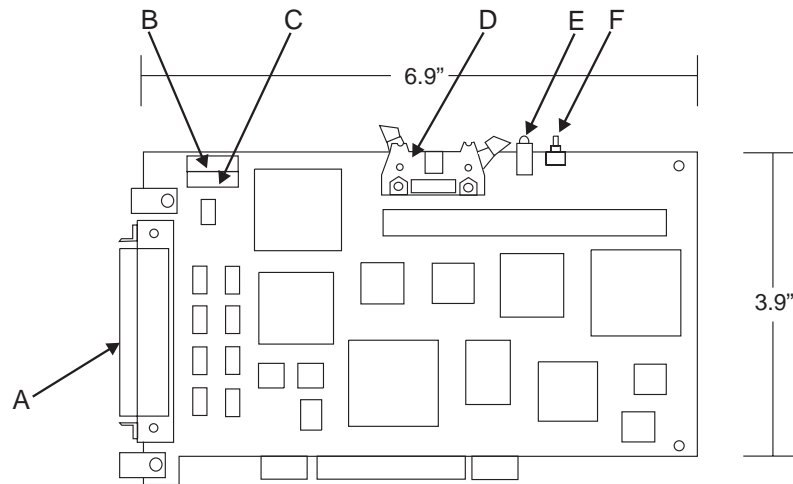
The IBM 4159 consists of a single full-length PCI board and a bus/tag interface cable. It contains all logic necessary to drive the bus/tag channel. The IBM 4159 card comes in two sizes: long and short. While these cards may appear to be different, they are functionally identical. The short version of the IBM 4159 card requires PTF UR52275 for Infoprint Manager for Windows NT and Windows 2000, but the long version of the IBM 4159 card does not require a PTF.

Figure 1 on page 12 and Figure 2 on page 13 show the outlines of the IBM 4159 cards.



- A** 80-pin connector
- B** Reset switch
- C** IRQ/ACTV LEDs
- D** 10-pin utility connector
- E** Assembly number label
- F** Serial number label
- G** ISA retainer

Figure 1. IBM 4159 Model 001 S/390 Parallel Channel Emulator Card Diagram (Long Card)



- A 80-pin connector
- B Serial number label
- C Assembly number label
- D 10-pin utility connector
- E IRQ/ACTV LEDs
- F Reset switch

Figure 2. IBM 4159 Model 001 S/390 Parallel Channel Emulator Card Diagram (Short Card)

The included bus/tag interface cable is attached to the IBM 4159 card with an 80-pin connector on the bracket. The opposite end of this cable has standard bus and tag style connectors.

80 Pin
Connector

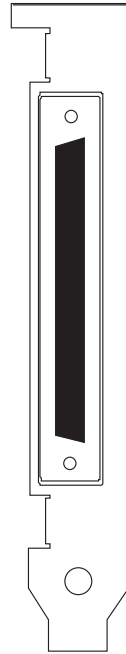


Figure 3. Front Panel with 80-Pin Connector

The IBM 4159 has the following limitations:

- Each IBM 4159 supports at most 8 printers or one IBM Infoprint 4000.
- The IBM 4159 requires a long PCI slot. (The dimensions of the card are 13.4 by 4.2 inches.) Therefore, the number of IBM 4159 cards that you can install per Windows NT/Windows 2000 system is the number of available long PCI slots, up to a maximum of 8 cards. Many computers have fewer than 8 long PCI slots.
- The IBM 4159 supports data streaming at either 3.0 Mb per second or 4.5 Mb per second. All printers connected to a computer must be configured for the same data streaming rate.
- The IBM 4159 supports only block multiplex data transfers.

What Comes with the IBM 4159 Card

The IBM 4159 Card is a separately orderable part for use with IBM Infoprint Manager for Windows NT and Windows 2000, Version 1.1, only. Contact your IBM Printing Systems Sales Representative to order a card or cards. When the card arrives, the box contains the following items:

1. 4159 Card
2. 10' Bus/Tag Interface cable (Y-cable)
3. Multi-language Read Me First sheet that directs you to this book.
4. Bus terminator
5. Tag terminator
6. Bootable diagnostics diskette
7. Emulator loopback (wrap plug) connectors
8. Service Label

Preparing to Install the IBM 4159 PCI Card

Before attempting to install the IBM 4159, you must install the Infoprint Manager server code onto the Windows NT/Windows 2000 system as described in "Chapter 2. Installing Infoprint Manager Server Software" on page 7. (If you have only channel-attached printers in your environment, you must install the IBM 4159 prior to performing any object configuration within Infoprint Manager.)

Creating a Diagnostics Diskette for the IBM 4159

If you are unable to find the diagnostics diskette that accompanied your IBM 4159 card, you may create one on any system where the IBM Infoprint Manager for Windows NT and Windows 2000 server software is installed. You should create the diagnostic diskette before you install the IBM 4159 card, so that you have it available when you test the card. To create a diagnostics diskette, follow these steps:

1. From the **Start** menu, select the **Run...** option.
2. Type `poldiagd` in the **Open:** field.
3. Click **OK**. A window displays.
4. Make sure that the drive letter displayed corresponds to the drive letter of your floppy disk drive.
5. Insert a blank 1.44 MB floppy diskette into the drive.
6. Click **OK**.
7. If an error message displays, diagnose and try this procedure again.
8. If the message "Operation completed with no error" appears, click the **Quit** button to close the application.

You may now use this diagnostics diskette to diagnose your IBM 4159 card as described in "Testing the Card" on page 17.

Installing the IBM 4159 Model 001 S/390 Parallel Channel Emulator Card

1. Remove all removable media (CD-ROMs, floppy disks, cartridge disks, etc.) from system drives.
2. Shutdown, power down, and unplug the server/host PC.

DANGER

Prior to installation of the IBM 4159, the server/host PC must be powered down and unplugged to avoid electrical shocks to the user and damage to the card or PC.

3. Remove the covers from the server/host PC.
4. Select a full length PCI slot.

Notes:

- a. A single full-length 32-bit PCI slot on the motherboard is required for installation of the long card. The short version of the card may fit in PCI slots that are not full-length.
- b. The PCI slot must support bus-mastering adapters.
- c. Some motherboards have heat sinks or other components that may obstruct proper installation of the IBM 4159. By design, the long card version of the IBM 4159's circuit board has a bare corner to allow the card to fit in the grooves of many CPU heat sinks.

5. For the selected slot, remove the metal bracket plate located on the back of the PC.
6. Slide the IBM 4159 into the slot and push firmly to ensure the contact pins are well seated. **Never** force the board into place.

CAUTION:

Proper static control precautions must be taken to avoid damage to the circuit board.

7. When the card is seated, replace the bracket screw to ensure proper grounding.
8. Replace the covers on the server/host PC.
9. Plug in the server/host PC.
10. Place the Service Label that came with the IBM 4159 in a conspicuous place that will be easy to find in the future, so that the information is close at hand if you need to call service. We recommend attaching this label to the side of your server or some other obvious location.

Attaching the Bus/Tag Interface cable

CAUTION:

Power down the server/host PC before connecting or disconnecting the Bus/Tag Interface cable.

The IBM 4159 is provided with a Bus/Tag Interface cable to convert from the 80-pin connector on the PCI card to standard bus and tag connectors. This interface cable matches the impedance specification for standard channel cables and may be attached directly to a control unit or extended with standard bus and tag cables. Standard channel terminators (included) must be installed at the last control unit, which is at the opposite end of the cables from the IBM 4159.

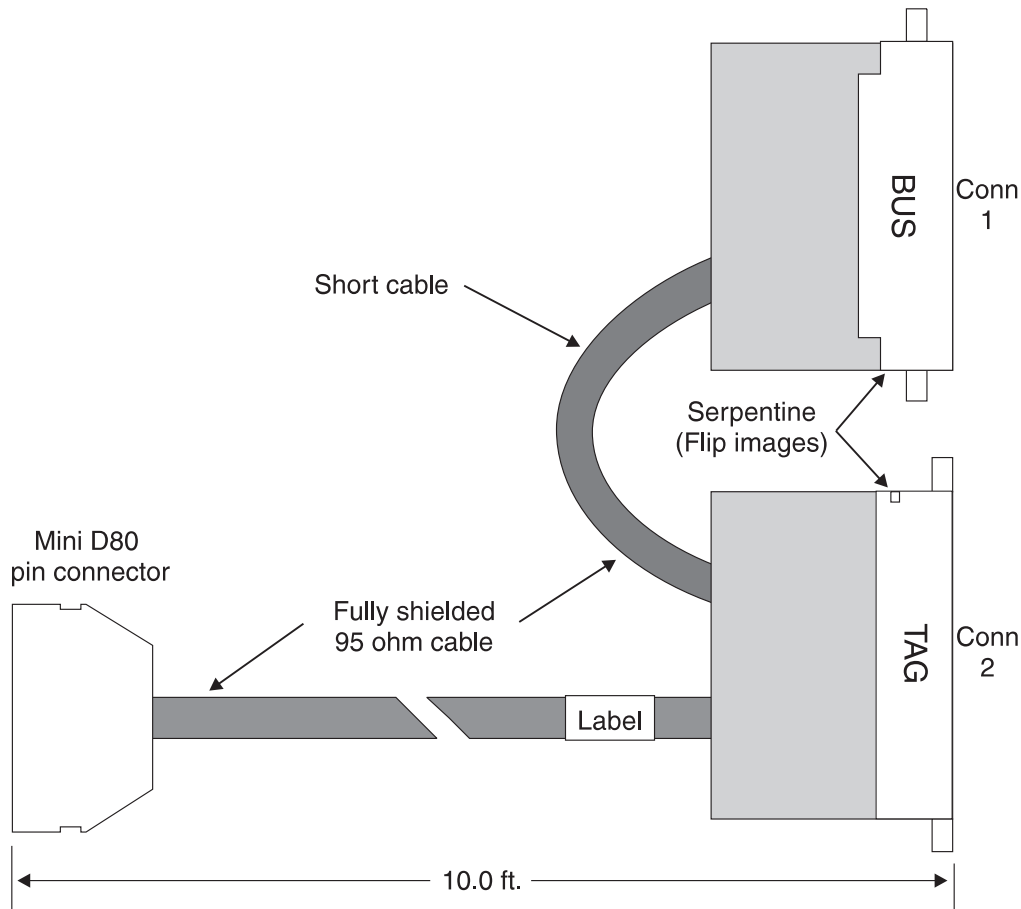


Figure 4. Bus/Tag Interface Cable Assembly

To attach the Bus/Tag Interface cable to the IBM 4159 PCI card:

1. Squeeze the two release tabs on the 80-pin cable connector.
2. Push the cable onto the mating connector of the PCI card. A slight rocking while pushing may be helpful.
3. Release the two tabs when firmly seated.
4. Now pull on the connector (without squeezing the tabs) to ensure the cable is latched in place.

Testing the Card

To verify proper installation, the card diagnostics provided should be run before attaching the card to a control unit. The card diagnostics are supplied with the IBM 4159 on a bootable 3.5-inch floppy diskette. If you cannot locate the diagnostic diskette that was supplied with the card, see "Creating a Diagnostics Diskette for the IBM 4159" on page 15.

Note: This diagnostic program should only be run as directed. Do not attempt to run the diagnostic program under Windows NT/Windows 2000. You must boot from the floppy to run diagnostics.

To perform the diagnostic, you must first attach the included emulator loopback (wrap plug) connectors to the bus/tag connectors on the interface cable. To do this, follow these steps:

1. Inspect all connectors to ensure no pins are bent or damaged.

2. Attach the tag connector on the Bus/Tag Interface cable to the tag connector on the wrap plug as follows:
 - Join the connectors by hand.
 - Use a flat-head screwdriver to incrementally tighten the screw on the back of the interface cable tag.
 - Do not simply tighten the screw. Alternate between tightening the screw and pushing the connectors together by hand. This will ensure a uniform connection across all pins and reduce the chances of damaging the connectors.
3. Repeat the previous step to connect the bus connector on the Bus/Tag Interface cable to the bus connector on the wrap plug.

To run the diagnostic program, follow these steps:

1. If you have disabled the floppy drive as a boot device in the system BIOS, restore the floppy drive as the primary boot device.
2. Insert the diagnostics diskette in the floppy drive.
3. Restart the system. After a period of time, a window will display summarizing the results of initial diagnostics.
4. Review the summary and press any key to continue with additional diagnostics. The following menu displays:

Diagnostic test options are:

```

0. Return to DOS
1. Run all internal tests
2. Run all internal tests and loopback tests
Test number? _

```

5. Type "2" and press the "Enter" key to test all board functions including the 80-pin to tag/bus cable and channel driver/receivers. The tests will run continuously until you stop it by pressing any key or until an error is detected.
6. If a red error message displays, write down the contents of the error message and contact IBM customer support.
7. After at least ten test cycles, press any key to stop the test. If no error messages display, the test was a success.
8. Press any key to return to the menu.
9. Type "0" and press "Enter" to return to DOS.
10. Remove the diagnostic diskette from the floppy drive.
11. Power down the server/host PC.
12. Remove the emulator loopback connectors from the Bus/Tag Interface cable by alternating between unscrewing and gently pulling the connectors apart by hand.
13. Attach the loopback connectors to the Bus/Tag Interface cable for future use by looping the end of the black plastic lanyard on the loopback connector around the 10 foot cable of the Bus/Tag Interface cable and snapping it closed.
14. Store the diagnostic floppy disk in a safe place. It may be needed to diagnose communication problems in the future.

Important: You should install and test *all* IBM 4159 cards to be installed in a system prior to establishing connections to any control units (printing devices). This is highly recommended because slot numbers may change if additional IBM 4159 cards are added later. This may make channel destinations defined in Infoprint Manager invalid. See "Installing More Than One IBM 4159 Card" on page 19 for more information.

Installing More Than One IBM 4159 Card

If only one IBM 4159 card is installed in a system, the slot number assigned to it will always be "1." If, however, more than one IBM 4159 card is installed in a single system, Windows assigns a slot number to each card. To determine which slot number has been assigned to which card, follow this procedure:

1. Install each IBM 4159 card as instructed in "Installing the IBM 4159 Model 001 S/390 Parallel Channel Emulator Card" on page 15.
2. Test each card as instructed in "Testing the Card" on page 17.
3. Attach the tag connector on the Bus/Tag Interface cable to the supplied Tag Terminator as follows:
 - Inspect all connections to ensure that no pins are bent or damaged.
 - If connecting directly to the printing device, tighten the screws on the interface cable's connectors.
 - If connecting to a channel cable, use the screws on that cable's connectors.
 - Alternate between gradually tightening the screws and pushing the connectors together by hand.
4. Repeat the previous step to connect the bus connector on the Bus/Tag Interface cable to the supplied Bus Terminator.
5. Remove the PC covers, so you can see the LEDs on the installed IBM 4159 cards.
6. Power up the Windows NT/Windows 2000 system.
7. Open a DOS command prompt (by selecting **Programs** and then **Command Prompt** from the **Start** menu on Windows NT).
8. Type the following command and watch the channel cards while pressing the Enter key:

```
sense 1 00
```

The amber LED on one of the cards will flash off and then on again. This card resides in slot 1.

9. If you do not see which LED flashed, you must repeat this entire procedure from the beginning (including powering your system off and then on).

The system will number the channel slots in the order in which they are physically attached to the system. Therefore, the channel card located closest to the card identified in slot 1 will be in slot 2. The next channel card located closest to slot 2 will be in slot 3, and so on.

We recommend labeling each card with its associated slot number for future reference. When you have labeled all the slots, complete the following:

1. Shutdown and power off the server/host PC.
2. Remove the Bus and Tag Terminators from all the Bus/Tag Interface cables by alternating between unscrewing and gently pulling the connectors apart by hand.
3. Replace the covers on the server/host PC.

Testing the Printer Connection

After verifying that each of your IBM 4159 cards is operational as described in "Testing the Card" on page 17, you should verify the connection between each IBM 4159 and every connected printer. Follow this procedure for each channel card you have installed:

1. Power off all devices attached to the channel.

2. Connect the bus and tag connectors to the appropriate connections on the channel cable that is attached to the control unit (printing device). You may also connect directly to a control unit if it is located near the server system.
 - Inspect all connections to ensure that no pins are bent or damaged.
 - If connecting directly to the printing device, tighten the screws on the interface cable's connectors.
 - If connecting to a channel cable, use the screws on that cable's connectors.
 - Alternate between gradually tightening the screws and pushing the connectors together by hand.

Terminators are supplied to terminate the bus and tag connections in a channel device chain. It is very important that all channel chains are properly terminated. Contact your IBM customer engineer if you need help connecting and configuring your printing devices.

3. Power on the Windows NT/Windows 2000 system.

At this point on a Windows 2000 system, the **Found New Hardware** wizard appears, so you need to complete the following:

 - a. Repeatedly click **Next**, and accept the defaults for selecting a driver.
 - b. When the wizard comes back and says **Windows was unable to locate a driver for this device**, accept the default (**Disable this device**) and click **Finish**.

Note: You need to complete these steps to satisfy Windows 2000 plug and play drivers requirement. When you complete these steps, the plug and play detection code is satisfied, and your channel card will still be functional.

4. Power on all devices attached to the channel.
5. Open a DOS command prompt.
6. Type the following command:

```
sense SlotNumber DeviceAddress
```

where *DeviceAddress* is the two-character hexadecimal address of the control unit, and *SlotNumber* is the slot number assigned to the card by Windows. (If you have only one IBM 4159 in the system, this value is always "1." If you are installing more than one channel card, see "Installing More Than One IBM 4159 Card" on page 19 for information on how to determine the slot number assigned to each card.)

7. Press Enter. Confirm that the device type and sense response values are displayed.
8. If an error message displays instead, fix the indicated problem, and try this procedure again.
9. Repeat Steps 1 through 8 of this procedure for each printer attached to the channel card.

Chapter 4. Understanding Destination Support Systems (DSS)

The software that the actual destination uses to send jobs to the output device is called the destination support system (DSS). IBM Infoprint Manager for Windows NT and Windows 2000 supports the following DSSs:

PSF DSS

The PSF DSS permits Infoprint Manager to use the IBM Print Services Facility (PSF) printing subsystem. This DSS allows communication with output devices that have Intelligent Printer Data Stream (IPDS) functionality or that have PCL functionality. The PSF DSS is therefore the most flexible DSS. It provides a single point of control and tracking for print jobs. Infoprint transforms jobs submitted to PSF destinations to the IPDS™ or PCL data stream before sending them to the output device.

The way in which Infoprint communicates with the output device depends on the type of actual destination. For PSF DSS actual destinations, it also depends on the attachment type. (See “Understanding Attachment Types for PSF Actual Destinations” on page 23.)

Passthrough DSS

The Passthrough DSS permits IBM Infoprint Manager for Windows NT and Windows 2000 to use the Windows print-spooling subsystem. This DSS supports non-IPDS (PostScript or PCL) printers by using standard Windows NT/Windows 2000 ports and port monitors.

Before you create an Infoprint Manager Passthrough actual destination, you must perform these tasks:

- Attach the printer device as specified by its documentation
- Use the Infoprint Manager Management Console to create a Windows port to communicate with the printer device (see “Passthrough Printer” on page 37 for details)
- Install the Windows Generic/Text Only Driver from the Windows CD

BSD DSS

The BSD DSS permits Infoprint Manager to use remote printers or printing subsystems. Infoprint Manager sends jobs submitted to BSD physical printers as separate print requests to a remote print queue.

Infoprint Manager typically uses the **lpr** command to send jobs to a printer device or to another system. The target can be any device or system that supports the **lpd** protocol and that connects to the network with TCP/IP.

Refer to the printer configuration documentation of the remote device or system for details on how to set up a remote queue.

IPP DSS

Infoprint Manager uses the IPP DSS to communicate with destinations through the Internet Print Protocol (IPP). This DSS allows Infoprint Manager to access a printer by means of a Uniform Resource Indicator (URI) string.

If you send intelligent printer data stream (IPDS) to your printer, you should create PSF printers. Check Table 6 on page 24 to see which attachment type to create. Otherwise, the type of destination you create primarily depends on where your print jobs are coming from. The appropriate DSS is different for each of the following job submitters:

- PC-based applications

- A host system (through PSF Direct)
- Both PC-based applications and a host system (through either PSF Direct or MVS Download)

Refer to the sections below for assistance in making the decision.

Selecting a DSS for Printing from PC-based Applications or a Host System Using IP Printway

If you do not use PSF Direct or MVS Download to submit jobs, use Table 3 to see which type of destination fits your needs.

Table 3. Selecting a DSS for Printing from PC-based Applications

If the data stream that your applications send to Infoprint Manager is:	PostScript, Printer Control Language (PCL, versions 4, 5, and 5c only) or any non-IPDS data stream			
and the data stream that you send to this printer is:	the same that the application sends to Infoprint Manager		PCL4, PCL5, PCL5c, PPDS ¹ , IPDS	
and your jobs are going to be sent to a printer:	through a Windows defined port	using a command such as lpr	that is IPP enabled	that is attached to your Infoprint Manager system in any of the ways listed in Table 6 on page 24.
Create this kind of actual destination:	Passthrough ²	BSD	IPP	PSF
Notes:				
1. You can only print PPDS on a non-Windows system, for example, by sending the PPDS data stream to an AIX system.				
2. If you are printing PCL data to a Windows NT-defined printer, you may want to consider creating a PSF (other-driver or command) destination instead. A Passthrough destination uses fewer processing resources, but a PSF destination provides much more functionality, such as accounting and automatic data stream transforms.				

Selecting a DSS for Printing from Host Systems Using PSF Direct

If you send print jobs to your printers from a host system using PSF Direct and you do not plan to allow job submission to those destinations through any other paths (such as the IPP gateway), use Table 4 to see which type of destination fits your needs.

Table 4. Selecting a DSS for Printing from Host Systems Using PSF Direct

If the data stream that you send to your printer is:	IPDS	PCL4, PCL5, PCL5c, or PPDS ¹
---	------	---

Table 4. Selecting a DSS for Printing from Host Systems Using PSF Direct (continued)

Create this type of actual destination:	PSF Direct only (TCP/IP- or channel-attached)	PSF Direct only (non-IPDS) Note: This destination type is equivalent to a PSF command destination.
Notes:		
1. You can only print PPDS on a non-Windows system, for example, by sending the PPDS data stream to an AIX system.		

Selecting a DSS for Printing from Both PC-based Applications and Host Systems

If you will be sending jobs to this destination from both PC-based applications and host systems using either PSF Direct or MVS Download, use Table 5 to see which type of destination fits your needs.

Table 5. Selecting a DSS for Printing from Both PC-based Applications and Host Systems

If the data stream that your host system and applications send to Infoprint Manager is:	AFP, ASCII, DBCS ASCII, line data, PCL4, PCL5, PCL5c, PS, PDF, IPDS (through PSF Direct)	PCL4, PCL5, or PCL5c only	PS only
and the data stream that you send to your printer is:	IPDS	PCL4, PCL5, PCL5c, or PPDS ¹	PCL4, PCL5, or PCL5c PS
Create this kind of actual destination:	PSF (TCP/IP or channel)	PSF (other driver or command)	PSF (other driver or command) OR any of the destination types listed in Table 3 on page 22.
Notes:			
1. You can only print PPDS on a non-Windows system, for example, by sending the PPDS data stream to an AIX system.			

Understanding Attachment Types for PSF Actual Destinations

The attachment type for an actual destination defines how the printer device attaches to the Windows NT/Windows 2000 system and communicates with IBM Infoprint Manager for Windows NT and Windows 2000. Based on the printer device, the attachment type is one of the following:

- **TCP/IP.** The printer device communicates using IPDS and attaches to the Windows NT/Windows 2000 system through the TCP/IP network. To create the actual destination, you must specify the Internet Protocol (IP) address of the printer device and the port number through which Infoprint Manager communicates with the device. The port number for TCP/IP-attached printers is

an integer from 5001 to 65535. For printers attached using the i-data 7913 IPDS Printer LAN Attachment, you must use **5001** as the port number.

- **Channel.** The Intelligent Printer Data Stream (IPDS) printer device attaches to the Windows NT/Windows 2000 system through an IBM 4159 Model 001 S/390 Parallel Channel Emulator Card (with S/390 bus/tag cables). Before creating the actual destination, you must identify the number of the slot that contains the card and the hexadecimal control unit address of the printer device.

Note: If you plan to attach printers through an IBM 4159 Model 001 S/390 Parallel Channel Emulator Card, consider the following limitations:

- Each IBM 4159 supports at most 8 printers or one IBM Infoprint 4000.
 - The IBM 4159 requires a long PCI slot. (The dimensions of the card are 13.4 by 4.2 inches.) Therefore, the number of IBM 4159 cards that you can install per Windows NT/Windows 2000 system is the number of available long PCI slots, up to a maximum of 8 cards. Many computers have fewer than 8 long PCI slots.
 - The IBM 4159 supports data streaming at either 3.0 Mb per second or 4.5 Mb per second. All printers connected to a computer must be configured for the same data streaming rate.
 - The IBM 4159 supports only block multiplex data transfers.
- **Other-Driver.** The PCL or PPDS printer device communicates using TCP/IP or attaches directly to the Windows NT/Windows 2000 system through a parallel or serial port. To create the actual destination, you must specify the port associated with a port monitor needed to operate the PCL or PPDS printer.
 - **Command.** Before you create a PSF command actual destination, you must perform these tasks:
 - Attach the printer device as specified by its documentation
 - Create a Windows port to communicate with the printer device

Use Table 6 to determine the appropriate attachment type for PSF actual destinations.

Table 6. Selecting an Attachment Type for PSF Actual Destinations

If you are sending this data stream to the printer:	IPDS	IPDS	PCL4, PCL5, PCL5c, PPDS	PCL4, PCL5, PCL5c, PPDS
and you are going to attach the printer to the system where Infoprint Manager is running this way:	over the TCP/IP network	using the IBM 4159 Model 001 S/390 Parallel Channel Emulator Card	over the TCP/IP network OR directly attaching it through a parallel or serial port	over the TCP/IP network using a command such as lpr to submit jobs to it
Select this attachment type:	TCP/IP	Channel	Other-driver Note: You cannot use a PSF Other-driver destination with PSF Direct.	Command

Chapter 5. Using the Infoprint Interfaces

This section lists the tasks you can complete with the Infoprint Manager Administration and Operations GUIs and the Infoprint Manager Management Console. You use the Infoprint Manager Administration and Operations GUIs for most of your day-to-day Infoprint Manager tasks; while you use the Infoprint Manager Management Console for tasks that must be performed on the Infoprint Manager server system.

For more information on the tasks listed here, refer to the Help associated with the Infoprint Manager Administration and Operations GUIs and the Infoprint Manager Management Console.

For information on installing and starting the Infoprint Manager Administration and Operations GUIs, see “Chapter 9. Installing Infoprint Manager GUI Software” on page 53.

Tasks you perform using the Infoprint Manager Administration GUI

Printer tasks:

- Create or copy a printer (except Windows Gateway or PSF Direct printers)
- Move a printer
- Delete a printer
- Create, copy, and modify job and document defaults
- Change logical destinations
- Check the status of a printer
- Enable a printer
- Disable a printer
- Space a PSF printer
- Resume a printer
- Stop or pause a PSF, Infoprint 2000, or Infoprint Color printer
- Change media for a PSF, Infoprint 2000, BSD, InfoprintColor, or Passthrough printer
- Change job routing
- View or change printer properties
- Determine the media supported in the server
- Associate a medium with a physical printer
- Set or modify notification for an actual destination
- Set or modify notification for default jobs
- Specify the default form definition for a PSF printer
- Specify the default input tray and output bin for a PSF printer
- Map output-bin names to output-bin numbers
- Force messages from a printer
- Configure BSD printers that do not support the -Z flag
- Filter on actual destinations
- Display actual destinations
- Monitor printers
- Specify job batches ready for a printer

- Associate resource-context objects with an actual destination
- Associate auxiliary sheets with a PSF printer
- Activate auxiliary sheets for accounting or auditing information
- Associate input and output data user-exit programs with an actual destination

Job tasks:

- Check the status of a queued or retained job
- Release a job
- Hold a job
- Change the media for a job
- Change the number of copies to print
- Change the retain time for a job
- Make a job first (promote a job)
- Move a job to a destination (reorder a job)
- Move a job to a physical printer
- Delete (cancel) a job
- Delete and retain a job
- Search for a job
- View or change job properties
- Display queued or retained jobs in the server
- Request a specific printer for a job
- Set or modify notification for a job
- Monitor jobs
- List all jobs for a printer or a queue
- Adjust the print quality of a job
- Set a job-batch value for a job
- Resubmit a retained job

Queue tasks:

- Create a queue
- Delete a queue
- Filter on queues
- Monitor queues

Logical destination tasks:

- Create or copy a logical destination
- Move a logical destination
- Delete a logical destination
- Copy and modify job and document defaults
- Change the actual destinations fed by a logical destination
- Enable a logical destination
- Disable a logical destination
- View or change logical destination properties
- Filter on logical destinations
- Display logical destinations
- Associate a default job or default document
- Monitor logical destinations

- Specify the location of resources
- Specify printer driver names
- Adjust print quality in a default document
- Set or modify notification for default jobs

Server tasks:

- Show all servers currently running in the namespace
- View or change server properties
- Set or modify notification for a server

Transform tasks:

- Create a transform
- Copy a transform
- Show transforms in all servers currently being monitored
- Delete a transform
- View or change transform properties
- Associate a sequence of transforms with a printer

Miscellaneous tasks:

- Open windows (Main Window, Printers Window, Open Jobs Window, Retained Jobs Window)
- Check error messages
- Update GUI windows
- Add options to menus and toolbars
- Remove options from menus and toolbars
- Sort details views and tree views
- Change primary Infoprint server connection
- Filter your view (destinations, queues, or servers)
- Access Help topics

Installing or Starting the Infoprint Manager Administration GUI

For information on installing and starting the Infoprint Manager Administration GUI, see “Chapter 9. Installing Infoprint Manager GUI Software” on page 53.

Tasks you perform using the Infoprint Manager Operations GUI

Printer tasks:

- Check the status of a printer
- Enable a printer
- Disable a printer
- Space a PSF printer
- Resume a printer
- Stop or pause a PSF, Infoprint 2000, or Infoprint Color printer
- Change media for a PSF, Infoprint 2000, BSD, InfoprintColor, or Passthrough printer
- Change job routing
- Display actual destinations
- Monitor printers

Job tasks:

- Check the status of a queued or retained job
- Release a job
- Hold a job
- Change the media for a job
- Change the number of copies to print
- Change the retain time for a job
- Make a job first (promote a job)
- Move a job to a destination (reorder a job)
- Move a job to a physical printer
- Delete (cancel) a job
- Delete and retain a job
- Search for a job
- View or change job properties
- Display queued or retained jobs in the server
- Display retained jobs in the server
- Request a specific printer for a job
- Set or modify notification for a job
- Monitor jobs
- List all jobs for a printer or a queue
- Adjust the print quality of a job
- Set a job-batch value for a job
- Resubmit a retained job

Queue tasks:

- Filter on queues
- Monitor queues

Server tasks:

- Show all servers currently running in the namespace

Miscellaneous tasks:

- Open windows (Main Window, Printers Window, Open Jobs Window, Retained Jobs Window)
- Check error messages
- Update GUI windows
- Add options to menus and toolbars
- Remove options from menus and toolbars
- Sort details views and tree views
- Change primary Infoprint server connection
- Filter your view (destinations, queues, or servers)
- Access Help topics

Installing and starting the Infoprint Manager Operations GUI

For information on installing and starting the Infoprint Manager Operations GUI, see “Chapter 9. Installing Infoprint Manager GUI Software” on page 53.

Tasks you perform using the Management Console

Server tasks:

- Start or stop the Infoprint Manager server
- Check server status
- View or filter the server log
- Save the view of the server log that is currently displayed as a text file
- Check the percentage of server filespace used
- Set the Infoprint Manager server to start automatically when the system starts up

Server Configuration tasks:

- Change the user account that the server runs under
- Change the password associated with the user account that the server runs under
- Change the domain that the Infoprint Manager server operates in
- View or modify Infoprint Manager directory structure and resource search path information
- View or modify the ports that the server communicates on

PSF Direct tasks:

- Create, modify, or delete destinations that are used exclusively by PSF Direct
- Create, view, modify, or delete a PSF Direct host receiver

Destination tasks:

- View the status and attributes of Infoprint destinations
- Migrate a Windows printer into an Infoprint destination
- Create, view, modify, or delete a Windows Gateway Printer
- Prevent some users or groups from submitting jobs to a particular destination

MVS Download tasks:

- View MVS Download receiver information
- Create or delete MVS Download receivers
- Start or stop MVS Download receivers
- Delete orphaned files
- Open the destination control file so you can edit it
- Resubmit a job that failed in processing by the exit program

Troubleshooting tasks:

- Capture system information to provide to IBM Service
- Manage server tracing
- Manage PSF destination tracing
- View PSF destination logs
- Reset communications between the Infoprint Manager server and other servers
- Create or clear namespace

Security tasks:

- View Infoprint Access Control Lists (ACLs) and the Infoprint users and groups who have permissions associated with them

- Add or delete Infoprint member/group of Infoprint ACL
- Modify Infoprint member/group permissions in Infoprint ACL
- Create, view, modify, or delete Infoprint security groups and their members

Input Manager tasks:

- Change Input Manager settings
- Clean up leftover Input Manager files

Miscellaneous tasks:

- Start up one of the other Infoprint Manager GUIs
- Specify which view of the Infoprint Manager GUI to launch from the Management Console
- Print a test job
- Enable or disable IPP Gateway
- Enable or disable notification server
- Add Windows port
- Specify how often you want the information displayed in the Management Console to be updated
- Update the information currently displayed in the Management Console
- View help for error and informational messages

Starting the Infoprint Manager Management Console

To start the Infoprint Manager Management Console, open the **Start** menu and click **Programs—>IBM Infoprint Manager—>Management Console**.

Chapter 6. Creating an Actual Destination

For help in selecting the type of actual destination to create, see “Chapter 4. Understanding Destination Support Systems (DSS)” on page 21.

The Infoprint Manager Operations and Infoprint Manager Administration GUIs (graphical user interfaces) are applications that let you easily manage your Infoprint objects. Either GUI runs on the Windows NT, Windows 2000, Windows 95/98, or AIX operating system.

The interface you use depends on whether you want the printer to be driven through an Infoprint Manager queue or exclusively by a remote host system through PSF Direct. The Infoprint Manager Administration GUI provides wizards to help you create several types of actual destinations to be driven by Infoprint Manager. The Infoprint Manager Management Console provides support for creating printers to be driven exclusively by PSF Direct. It also provides support for creating Infoprint gateways, which allow users to submit jobs to Infoprint Manager even if they do not have Infoprint Select installed.

This chapter assumes that you have started the Infoprint Manager interfaces and you are comfortable using them. See “Chapter 5. Using the Infoprint Interfaces” on page 25 for information on the tasks you can perform with the Infoprint Manager interfaces.

Note: Even if all printers in your environment are driven exclusively by host systems through PSF Direct, you should initially set up one printer to be driven by Infoprint Manager. You can use this printer to verify that Infoprint Manager is functioning properly.

Creating a Destination Driven by Infoprint Manager

Use the Infoprint Manager Administration GUI to create these types of actual destinations. The Infoprint Manager Administration GUI provides wizard support for creating the following types of printers:

- “PSF TCP/IP Printer”
- “PSF Channel Printer” on page 33
- “PSF Command Printer” on page 34
- “PSF Other-Driver Printer” on page 35
- “Passthrough Printer” on page 37
- “BSD Printer” on page 39
- “IPP Printer” on page 40

Note: If you are planning to print using the **lpr** command, you must install the Microsoft TCP/IP Printing Service.

PSF TCP/IP Printer

Create a PSF actual destination to represent an Intelligent Printer Data Stream™ (IPDS) printer. Use the TCP/IP attachment type for an IPDS printer that PSF controls directly through TCP/IP.

Before creating a PSF TCP/IP printer, complete the following worksheet.

Table 7. PSF TCP/IP Printer Worksheet

Wizard Prompt	Description	Value
Name	The name for the actual destination object (8 character limit). Note: This name is case-sensitive.	
Server	The server that controls this actual destination. The server name is the same as the name of the host system where the server is installed. Note: This name is case-sensitive.	
Model	The printer model, such as InfoPrint60 or 4320 . Note: This name is case-sensitive.	
TCP/IP address	The dotted-decimal IP address used to access this printer.	
TCP/IP port	The port used by the printer for communication. (Typically, port 5001 is used.)	
Logical destination	The logical destination that directs jobs to this actual destination. Note: This name is case-sensitive.	__ Default __ Other:
Logical destination's server	The server that contains the logical destination. Note: This name is case-sensitive.	
Queue	The queue that holds jobs destined for this actual destination. Note: This name is case-sensitive.	__ Default __ Other:

To create this type of printer, use the **Create Printer Wizard** in the Infoprint Manager Administration GUI. (On the menu bar, click **Printer**—>**Create**—>**PSF**—>**TCP/IP**.) Referring to the worksheet above, provide the information as prompted by the wizard. For assistance, refer to the Infoprint Manager Administration GUI online help.

Note: If the **Create PSF TCP/IP** printer option is not shown in the **Printer** menu, you can add it to the menu using customizing options in the Infoprint Manager Administration GUI. Select the **Customize** option from the **Options** menu to open the Customize dialog. Select the **Printer** tab and select the Menu checkbox for **Create PSF TCP/IP**. Click **OK** to apply your change and close the dialog. The **Create PSF TCP/IP** printer option displays in the **Printer** menu.

If you did not enable the printer with the **Create Printer Wizard**, use the Infoprint Manager Administration GUI to enable it.

PSF Channel Printer

Create a PSF actual destination to represent an IPDS printer. Use the channel attachment type for an IPDS printer that PSF controls directly through an IBM 4159 Model 001 S/390 Parallel Channel Emulator Card.

Before creating a PSF channel printer, complete the following worksheet.

Table 8. PSF Channel Printer Worksheet

Wizard Prompt	Description	Value
Name	The name for the actual destination object (8 character limit). Note: This name is case-sensitive.	
Server	The server that controls this actual destination. The server name is the same as the name of the host system where the server is installed. Note: This name is case-sensitive.	
Model	The printer model, such as 3825 or 3900 . Note: This name is case-sensitive.	
Channel device address	The two-digit hexadecimal control-unit address assigned to the physical print device hardware. Consult printer documentation for instructions on how to determine this value.	
Channel slot number	The system slot number where the channel card is installed. If more than one channel card is installed, consult "Installing More Than One IBM 4159 Card" on page 19 to determine the correct value. Otherwise, the default value of "1" is appropriate.	
Logical destination	The logical destination that directs jobs to this actual destination. Note: This name is case-sensitive.	__ Default __ Other:
Logical destination's server	The server that contains the logical destination. Note: This name is case-sensitive.	

Table 8. PSF Channel Printer Worksheet (continued)

Wizard Prompt	Description	Value
Queue	The queue that holds jobs destined for this actual destination. Note: This name is case-sensitive.	__ Default __ Other:

To create this type of printer, use the **Create Printer Wizard** in the Infoprint Manager Administration GUI. (On the menu bar, click **Printer**—>**Create**—>**PSF**—>**Channel**.) Referring to the worksheet above, provide the information as prompted by the wizard. For assistance, refer to the Infoprint Manager Administration GUI online help.

Note: If the **Create PSF Channel** printer option is not shown in the **Printer** menu, you can add it to the menu using customizing options in the Infoprint Manager Administration GUI. Select the **Customize** option from the **Options** menu to open the Customize dialog. Select the **Printer** tab and select the Menu checkbox for **Create PSF Channel**. Click **OK** to apply your change and close the dialog. The **Create PSF Channel** printer option displays in the **Printer** menu.

If you did not enable the printer with the **Create Printer Wizard**, use the Infoprint Manager Administration GUI to enable it.

PSF Command Printer

Create a PSF actual destination to represent a PCL printer. Use the command attachment type for a PCL printer that receives data streams transformed by PSF from a print command.

Before creating a PSF command printer, complete the following worksheet.

Table 9. PSF Command Printer Worksheet

Wizard Prompt	Description	Value
Name	The name for the actual destination object (8 character limit). Note: This name is case-sensitive.	
Server	The server that controls this actual destination. The server name is the same as the name of the host system where the server is installed. Note: This name is case-sensitive.	
Model	The printer model, such as 4340 or 4019 . Note: This name is case-sensitive.	
TCP/IP address	The dotted-decimal IP address used to access this printer. This value is used only for SNMP printers.	

Table 9. PSF Command Printer Worksheet (continued)

Wizard Prompt	Description	Value
Device	The AIX device name. This is not applicable for Windows NT/Windows 2000.	Leave blank.
Printer command	The command string used to send a job to the appropriate Windows printer. For example, <code>lpr -S serverName -P printerName</code> . Note: This command is case-sensitive.	
Data stream	The data stream expected by the printing device (PCL4, PCL5, PCL5C, or PPDS).	
Logical destination	The logical destination that directs jobs to this actual destination. Note: This name is case-sensitive.	__ Default __ Other:
Logical destination's server	The server that contains the logical destination. Note: This name is case-sensitive.	
Queue	The queue that holds jobs destined for this actual destination. Note: This name is case-sensitive.	__ Default __ Other:
Note: Prior to using this worksheet to create your Infoprint Manager actual destination, you may need to use the standard Windows Add Printer Wizard to make the printer available.		

To create this type of printer, use the **Create Printer Wizard** in the Infoprint Manager Administration GUI. (On the menu bar, click **Printer**—>**Create**—>**PSF**—>**Command**.) Referring to the worksheet above, provide the information as prompted by the wizard. For assistance, refer to the Infoprint Manager Administration GUI online help.

Note: If the **Create PSF Command** printer option is not shown in the **Printer** menu, you can add it to the menu using customizing options in the Infoprint Manager Administration GUI. Select the **Customize** option from the **Options** menu to open the Customize dialog. Select the **Printer** tab and select the Menu checkbox for **Create PSF Command**. Click **OK** to apply your change and close the dialog. The **Create PSF Command** printer option displays in the **Printer** menu.

If you did not enable the printer with the **Create Printer Wizard**, use the Infoprint Manager Administration GUI to enable it.

PSF Other-Driver Printer

Create a PSF other-driver actual destination to represent a PCL printer that receives data streams transformed by PSF through a Windows port monitor.

Note: The Infoprint Manager Administration GUI calls a PSF other-driver actual destination or printer, a PSF other printer.

Before creating a PSF other-driver printer, complete the following worksheet.

Table 10. PSF Other-Driver Printer Worksheet

Wizard Prompt	Description	Value
Name	The name for the actual destination object (8 character limit). Note: This name is case-sensitive.	
Server	The server that controls this actual destination. The server name is the same as the name of the host system where the server is installed. Note: This name is case-sensitive.	
Model	The printer model, such as InfoPrint20 or 4320 . Note: This name is case-sensitive.	
TCP/IP address	The dotted-decimal IP address used to access this printer. This value is used only for SNMP printers.	
Device	The Windows port associated with this destination.	
Data stream	The data stream expected by the printing device (for example, PCL4 or PPDS).	
Logical destination	The logical destination that directs jobs to this actual destination. Note: This name is case-sensitive.	__ Default __ Other:
Logical destination's server	The server that contains the logical destination. Note: This name is case-sensitive.	
Queue	The queue that holds jobs destined for this actual destination. Note: This name is case-sensitive.	__ Default __ Other:

To create this type of printer, use the **Create Printer Wizard** in the Infoprint Manager Administration GUI. (On the menu bar, click **Printers**—>**Create**—>**PSF**—>**Other**.) Referring to the worksheet above, provide the information as prompted by the wizard. For assistance, refer to the Infoprint Manager Administration GUI online help.

Note: If the **Create PSF Other** printer option is not shown in the **Printer** menu, you can add it to the menu using customizing options in the Infoprint Manager Administration GUI. Select the **Customize** option from the **Options** menu to open the Customize dialog. Select the **Printer** tab and select the Menu

checkbox for **Create PSF Other**. Click **OK** to apply your change and close the dialog. The **Create PSF Other** printer option displays in the **Printer** menu.

If you did not enable the printer with the **Create Printer Wizard**, use the Infoprint Manager Administration GUI to enable it.

Passthrough Printer

Create a Passthrough actual destination to represent a printer that receives untransformed data streams through a Windows port monitor.

Before you create an Infoprint Manager Passthrough printer, you must install the Windows Generic/Test Only Driver from the Windows CD once:

1. Use the Windows **Add Printer Wizard** to create a printer that uses the FILE port.
2. When the wizard gives you a list of drivers to choose from, select the Generic/Text Only driver.

After you have ensured that the Generic/Text Only driver is installed, you must complete the following tasks:

1. Attach the printer device as specified by its documentation
2. When you already have a Windows port defined, you are ready to create your Passthrough printer. If you need to create a Windows port, use the following procedure:
 - Use the Infoprint Manager Management Console to create a Windows port to communicate with the printer device as follows:
 - a. Open the **Start** menu and click **Programs—>IBM Infoprint Manager—>Management Console**.
 - b. Go to **Edit—>New—>Windows Port**.
 - c. In the **Create Windows Port** dialog, select the appropriate port monitor for your printing environment from the pull-down list and click **OK**.

For example, if you are using IBM network attached workgroup printers as a non-IPDS printer, such as the Infoprint 20, you should use the IBM TCP/IP Network Port Monitor. If the TCP/IP Network Port monitor does not appear in the **Create Windows Port** dialog pull-down list, you can download it from <http://www.ibm.com/printers>.

Note: The port monitor that you select determines the next dialog to appear.

Before creating a Passthrough printer, complete the following worksheet.

Table 11. Passthrough Destination Worksheet

Wizard Prompt	Description	Value
Name	The name for the actual destination object. For example, the name you will use for the passthrough printer you just attached. Note: This name is case-sensitive.	

Table 11. Passthrough Destination Worksheet (continued)

Wizard Prompt	Description	Value
Server	The server that controls this actual destination. The server name is the same as the name of the host system where the server is installed. Note: This name is case-sensitive.	
Windows port name	The name of the Windows port to assign to this destination. Enter the Windows port name that you want to use exactly as it appears to Windows.	
TCP/IP address	The dotted-decimal IP address used to access this printer. This value is used for SNMP printers only.	
Logical destination	The logical destination that directs jobs to this actual destination. Note: This name is case-sensitive.	__ Default __ Other:
Logical destination's server	The server that contains the logical destination. Note: This name is case-sensitive.	
Queue	The queue that holds jobs destined for this actual destination. Note: This name is case-sensitive.	__ Default __ Other:

To create this type of printer, use the **Create Printer Wizard** in the Infoprint Manager Administration GUI. (On the menu bar, click **Printer—>Create—>Passthrough**.) Referring to the worksheet above, provide the information as prompted by the wizard. For assistance, refer to the Infoprint Manager Administration GUI online help.

Note: If the **Create Passthrough** printer option is not shown in the **Printer** menu, you can add it to the menu using customizing options in the Infoprint Manager Administration GUI. Select the **Customize** option from the **Options** menu to open the Customize dialog. Select the **Printer** tab and select the Menu checkbox for **Create Passthrough**. Click **OK** to apply your change and close the dialog. The **Create Passthrough** printer option displays in the **Printer** menu.

If you did not enable the printer with the **Create Printer Wizard**, use the Infoprint Manager Administration GUI to enable it.

To print a test page, see “Chapter 8. Printing a Test Job” on page 49.

BSD Printer

Create a BSD actual destination when you need to configure a terminating transform at the actual destination or when no other DSS is suitable. The BSD DSS gives you less control of the printer and reports less accurate job status than the other DSSs.

Before creating a BSD printer, complete the following worksheet.

Table 12. BSD Printer Worksheet

Wizard Prompt	Description	Value
Name	The name for the actual destination object. Note: This name is case-sensitive.	
Server	The server that controls this actual destination. The server name is the same as the name of the host system where the server is installed. Note: This name is case-sensitive.	
TCP/IP address	The dotted-decimal IP address used to access this printer. This value is used only for SNMP printers.	
Printer command	The command to issue to submit a job to this remote destination. Typically, this is a call to the <code>lpr</code> command. For example, <code>lpr -S serverName -P printerName</code> . Note: This command is case-sensitive.	
Logical destination	The logical destination that directs jobs to this actual destination. Note: This name is case-sensitive.	__ Default __ Other:
Logical destination's server	The server that contains the logical destination. Note: This name is case-sensitive.	
Queue	The queue that holds jobs destined for this actual destination. Note: This name is case-sensitive.	__ Default __ Other:

To create this type of printer, use the **Create Printer Wizard** in the Infoprint Manager Administration GUI. (On the menu bar, click **Printer**—>**Create**—>**BSD**.) Referring to the worksheet above, provide the information as prompted by the wizard. For assistance, refer to the Infoprint Manager Administration GUI online help.

Notes:

1. If the **Create BSD** printer option is not shown in the **Printer** menu, you can add it to the menu using customizing options in the Infoprint Manager Administration GUI. Select the **Customize** option from the **Options** menu to open the Customize dialog. Select the **Printer** tab and select the Menu checkbox for **Create BSD**. Click **OK** to apply your change and close the dialog. The **Create BSD** printer option displays in the **Printer** menu.
2. When you use the **lpr** command with a BSD actual destination, the printer only prints **single-document** jobs. If you send a BSD actual destination a multiple-document job, only the last document in the job prints.

If you did not enable the printer with the **Create Printer Wizard**, use the Infoprint Manager Administration GUI to enable it.

IPP Printer

Create an IPP actual destination to represent a printer that supports the Internet Printing Protocol (IPP). The printer must have an assigned uniform resource indicator (URI).

Before creating an IPP printer, complete the following worksheet.

Table 13. IPP Destination Worksheet

Wizard Prompt	Description	Value
Name	The name for the actual destination object. This is the printer URI, for example, np17.prtm4.bldr.ibm.com. Note: This name is case-sensitive.	
Server	The server that controls this actual destination. The server name is the same as the name of the host system where the server is installed. Note: This name is case-sensitive.	
URL	The universal resource locator (URL) for this destination.	
TCP/IP address	The dotted-decimal IP address used to access this printer. This value is used for SNMP printers only.	
Logical destination	The logical destination that directs jobs to this actual destination. Note: This name is case-sensitive.	__ Default __ Other:
Logical destination's server	The server that contains the logical destination. Note: This name is case-sensitive.	

Table 13. IPP Destination Worksheet (continued)

Wizard Prompt	Description	Value
Queue	The queue that holds jobs destined for this actual destination. Note: This name is case-sensitive.	__ Default __ Other:

To create this type of printer, use the **Create Printer Wizard** in the Infoprint Manager Administration GUI. (On the menu bar, click **Printer**→**Create**→**IPP**.) Referring to the worksheet above, provide the information as prompted by the wizard. For assistance, refer to the Infoprint Manager Administration GUI online help.

Note: If the **Create IPP** printer option is not shown in the **Printer** menu, you can add it to the menu using customizing options in the Infoprint Manager Administration GUI. Select the **Customize** option from the **Options** menu to open the Customize dialog. Select the **Printer** tab and select the Menu checkbox for **Create IPP**. Click **OK** to apply your change and close the dialog. The **Create IPP** printer option displays in the **Printer** menu.

If you did not enable the printer with the **Create Printer Wizard**, use the Infoprint Manager Administration GUI to enable it.

Creating a Host-Driven Destination

To create a PSF Direct Only actual destination, you must run the Infoprint Manager Management Console as described in “Starting the Infoprint Manager Management Console” on page 30. The Infoprint Manager Management Console provides support for creating the following types of printers to be driven exclusively by PSF Direct:

- “PSF Direct Only TCP/IP Printer”
- “PSF Direct Only Channel Printer” on page 42
- “PSF Direct Only Non-IPDS Printer” on page 43

To enable job submission from host systems, it is also necessary to create a host receiver in the Infoprint Manager Management Console. This chapter includes the following procedures for creating host receivers:

- “PSF Direct Host Receiver” on page 43
- “MVS Download Receiver” on page 44

PSF Direct Only TCP/IP Printer

If you want to set up a TCP/IP-attached printer to accept jobs only from mainframe host systems, you should first complete the following worksheet.

Table 14. PSF Direct Only TCP/IP Printer Worksheet

Management Console Prompt	Description	Value
Destination	The name for the actual destination object (8 character limit). Note: This name is case-sensitive.	

Table 14. PSF Direct Only TCP/IP Printer Worksheet (continued)

Management Console Prompt	Description	Value
TCP/IP Internet Address	The dotted-decimal IP address used to access this printer.	
TCP/IP Port Number	The port used by the printer for communication. (Typically, port 5001 is used.)	
Connection Timeout	Number of seconds that the server will try to establish a connection with the destination before terminating the PSF Direct session.	
Intervention Timer	Number of seconds that the server will wait for a problem at the printer (for example, "Printer out of paper") to be resolved before canceling a job.	

Use the Infoprint Manager Management Console to create the actual destination. For assistance, refer to the Management Console online help.

PSF Direct Only Channel Printer

If you want to set up a channel-attached printer to accept jobs only from mainframe host systems, you should first complete the following worksheet.

Table 15. PSF Direct Only Channel Printer Worksheet

Management Console Prompt	Description	Value
Destination	The name for the actual destination object (8 character limit). Note: This name is case-sensitive.	
Channel Device Address	The two-digit hexadecimal control-unit address assigned to the physical print device hardware. Consult printer documentation for instructions on how to determine this value.	
Channel Slot Number	The system slot number where the channel card is installed. If more than one channel card is installed, consult "Installing More Than One IBM 4159 Card" on page 19 to determine the correct value. Otherwise, the default value of "1" is appropriate.	

Table 15. PSF Direct Only Channel Printer Worksheet (continued)

Management Console Prompt	Description	Value
Intervention Timer	Number of seconds that the server will wait for a problem at the printer (for example, "Printer out of paper") to be resolved before canceling a job.	

Use the Infoprint Manager Management Console to create the actual destination. For assistance, refer to the Management Console online help.

PSF Direct Only Non-IPDS Printer

If you want to set up a non-IPDS printer to accept jobs only from mainframe host systems, you should first complete the following worksheet.

Table 16. PSF Direct Only Non-IPDS Printer Worksheet

Management Console Prompt	Description	Value
Destination	The name for the actual destination object (8 character limit). Note: This name is case-sensitive.	
Data Stream	The data stream expected by the printing device (such as PCL4 or PPDS).	
Command to Print	The command used to submit jobs to this destination. Note: This command is case-sensitive.	
Printer Memory	The amount of memory available on the printer itself.	

Use the Infoprint Manager Management Console to create the actual destination. For assistance, refer to the Management Console online help.

PSF Direct Host Receiver

Create a PSF Direct host receiver to receive jobs from PSF running on a mainframe host system.

Complete the following worksheet to help you set up a PSF Direct host receiver.

Table 17. PSF Direct Host Receiver Worksheet

Management Console Prompt	Description	Value
SNA logical unit alias name	The local alias of the name used to start an SNA conversation with this host receiver.	

Table 17. PSF Direct Host Receiver Worksheet (continued)

Management Console Prompt	Description	Value
Actual destination name	The name of the associated actual destination object. Note: This name is case-sensitive.	
Description	Text to describe this receiver (optional).	
Inactivity limit	Number of seconds to wait for jobs from a connected host before disconnecting.	
Device busy limit	Number of seconds for host systems to wait for the printer to become available when it is in use by other print processes.	

Use the Infoprint Manager Management Console to create the host receiver. For assistance, refer to the Management Console online help.

MVS Download Receiver

Create an MVS Download receiver to receive jobs from MVS Download.

Complete the following worksheet to help you set up a MVS Download receiver.

Table 18. MVS Download Host Receiver Worksheet

Management Console Prompt	Description	Value
Port Number	The port assigned for communication with OS/390 or MVS. This value must be the same as the port assigned during configuration of the host system.	
Target Destination Name	The Infoprint Manager logical destination to which jobs are routed from this receiver by default. This default may be overridden with the appropriate OS/390 or MVS job parameters and printer control file settings. Note: This name is case-sensitive.	
Print Control File	The file that contains the appropriate attributes for jobs submitted to this receiver. You may use the default file, or you may point to a customized version of this default file.	

Table 18. MVS Download Host Receiver Worksheet (continued)

Management Console Prompt	Description	Value
Exit Program Name	The program that processes jobs submitted to this receiver from the host and passes the jobs to the requested Infoprint Manager destination. Typically, the default program mvsdsubm.exe is used.	
Retain command files	Indicate whether to save the command files for jobs that do not print correctly.	__ yes __ no
Process one file at a time	Indicate whether Infoprint Manager should wait for a previous job to complete before starting to process the next job.	__ yes __ no

Use the Infoprint Manager Management Console to create the MVS Download receiver. For assistance, refer to the Management Console online help.

Using Infoprint Gateways

If you do not want to install Infoprint Select on your users' workstations, create or enable an Infoprint gateway. There are two kinds of Infoprint gateways:

- A Windows gateway printer is a Windows shared printer that allows users anywhere in the network to submit print jobs through Infoprint Manager. Users must follow the instructions in "Adding a Windows gateway printer to Your Desktop" on page 79 to add the Windows gateway printer to their desktops. Use the Management Console to create and administer a Windows gateway printer. The Management Console help includes instructions.
- Infoprint Manager provides an Internet Printing Protocol (IPP) gateway. The IPP gateway allows users anywhere in the network who have IPP client software installed to submit print jobs through Infoprint Manager, even to printers that are not IPP-enabled. Users must follow the instructions provided with the IPP client to add a printer to their desktops.

Use the Management Console to enable the IPP gateway.

Note: When Infoprint Manager is uninstalled, any Windows Gateway printers that were installed are still present on the system (as you can see by clicking **Start** → **Settings** → **Printers**), but the port assigned to the Windows Gateway printers is deleted. Therefore, you have Windows Gateway printers with no port. If you try to print to one of these Windows Gateway printers, you will get an application-dependent message that does not identify this problem. You must have your users manually delete the Windows Gateway printer from their desktops after the uninstall.

Chapter 7. Synchronizing Infoprint Manager with an Infoprint 4000

The cutter-trimmer-stacker (CTS) is a post-processing device used for paper handling. Perform the following procedure with the help of your IBM service engineer (SE) to ensure that the IBM Infoprint 4000 printer and the CTS support the same media.

1. Use either Infoprint Manager GUI to specify the media that the actual destination representing the IBM Infoprint 4000 supports:
 - a. Invoke the Infoprint Manager GUI as described in “Starting the Infoprint Manager GUIs on Infoprint Manager for Windows NT and Windows 2000” on page 59.
 - b. Select the Infoprint 4000 printer object in the tree window.
 - c. Click the **Change Media** button on the task bar. The **Change Media** dialog displays.
 - d. Associate each tray with an appropriate media. Click the **Help** button for more information.
2. On the printer, define forms that correspond to the media you specified in the previous step. Consider the settings in the following table as an example:

Medium Name	Printer_Form Name	Printing_Form Description
letter	na letter	2-up letter (8.5 by 11)
legal	na legal	2-up legal (8.5 by 14)
ledger	ledger	1-up (11 by 17)

3. Set up the CTS for the dimensions required by the supported media. For example, to support ledger-sized paper, set up the CTS for an 11-inch cut width and a 14-inch cut length. Note that the CTS may support a limited set of cut lengths and only one center slitting option.

Chapter 8. Printing a Test Job

To submit a test job to a printer driven by Infoprint Manager, you must first run the Infoprint Manager Management Console as described in “Starting the Infoprint Manager Management Console” on page 30. Then follow these steps:

1. Select **Print Test Job** from the **Debug** menu. The **Print Test Job** dialog box opens.
2. Select the type of test job (AFP, PCL, PostScript, or ASCII) and the target destination.
3. Click **OK**.

This should produce printed output on the destination device. If it does not, you may wish to check the status of the job in the Infoprint Manager Administration GUI.

If you have created a PSF Direct Only destination, the only way to submit a test job is through PSF on the host system. All versions of PSF include suitable test jobs. Consult your host PSF documentation for details on submitting test jobs.

Part 2. Getting Started with Client Systems

Chapter 9. Installing Infoprint Manager GUI Software

Before you perform any of the steps documented here, you should understand the general features and requirements of Infoprint Manager.

There are two Infoprint Manager GUIs—the Infoprint Manager Administration GUI and the Infoprint Manager Operations GUI. (The Infoprint Manager Operations GUI provides a subset of the Infoprint Manager Administration GUI's functions.) You can install either GUI on a suitable Windows 95, Windows 98, Windows NT, or Windows 2000 system. The system does not need to have the Infoprint Manager server software installed. Follow the procedures in this chapter if you want to use Infoprint Manager GUI software to administer or control your Infoprint Manager server from a remote system.

Before beginning the installation, determine whether you will download the Infoprint Manager GUI software from the Web or will install directly from the IBM Infoprint Manager Client CD-ROM. For instructions on downloading the most recent version of the Infoprint Manager GUI, see “Downloading the Software” on page 54. For instructions on installing the software from the CD-ROM, see “Locating Software on the CD-ROM” on page 55.

This document contains the following sections:

- “Preparing for the Infoprint Manager GUI”
- “Downloading the Software” on page 54
- “Locating Software on the CD-ROM” on page 55
- “Three Views of the Infoprint Manager GUI with Infoprint Manager for AIX” on page 55
- “Installing the Software” on page 56
- “Starting the Infoprint Manager GUIs” on page 59
- “Uninstalling the Infoprint Manager GUIs” on page 61

Preparing for the Infoprint Manager GUI

Both Infoprint Manager GUIs require the Java™ Runtime Environment (JRE) from IBM at version 1.1.8 and dated 22 March 2000. This is the only supported JRE for running the Infoprint Manager GUIs.

To verify that you have the correct version of the JRE installed, follow these steps:

1. Type `jre -d` on an MS-DOS command line.
2. Verify that the first line of output from the command contains 118 in text that is similar to the following text:
`n118p-20000322`
3. If the output from the command does not contain the **118** string, uninstall the currently installed JRE component:
 - a. Uninstall JRE using **Add/Remove Programs** in the Control Panel.
 - b. Remove the JRE entry from the PATH environment variable.

If necessary, follow these steps to install the required JRE from the Client CD-ROM:

1. Insert the IBM Infoprint Manager Client CD-ROM into the drive.
2. Launch the `\jre\IBM-JRE-N118P-WIN32-X86` executable from the CD-ROM:
 - a. Double-click the **My Computer** icon.

- b. Double-click the CD-ROM drive icon.
 - c. Double-click the **jre** folder icon.
 - d. Double-click the **IBM-JRE-N118P-WIN32-X86.exe** icon.
3. Provide the information as prompted by the InstallShield program.
 4. After the InstallShield program terminates, use one of these methods to add `d:\ProgramFiles\IBM\JRE\1.1\bin` to the PATH environment variable, where *d*: is the drive where you installed the JRE:
 - On Windows 95 or Windows 98, open an MS-DOS window and edit the `autoexec.bat` file. At the end of the current value of the PATH variable, type the following:


```
;d:\progra~1\IBM\JRE\1.1\bin
```
 - On Windows NT, click the right mouse button on the **My Computer** icon. Select **Properties**, then the **Environment** tab. In the **System Variables** window, select **PATH**. The current value of PATH appears in the **Value** field. At the end of this value, type the following:


```
;d:\Program Files\IBM\JRE\1.1\bin
```

Click the **Set** button, then click the **OK** button.
 - On Windows 2000, click the right mouse button on the **My Computer** icon. Select **Properties**, then the **Advanced** tab, then the **Environment Variables** button. In the **System Variables** window, select **PATH**. The current value of PATH appears in the **Value** field. At the end of this value, type the following:


```
;d:\Program Files\IBM\JRE\1.1\bin
```

Click the **Set** button, then click the **OK** button.
 5. Restart the Windows system to make the change in the PATH environment variable effective.
 6. Type `jre -d` on an MS-DOS command line.
 7. Verify that the first line of output from the command contains **118** in text similar to the following text:


```
n118p-20000322
```

Downloading the Software

Follow this procedure to download the latest version of Infoprint Manager GUI software:

1. Go to the IBM Printing Systems Company home page at <http://www.ibm.com/printers>. Select the appropriate **Infoprint Manager** sitelet from the list.
2. Click the **Downloads/free tools** link on the blue navigation bar on the left of the screen.
3. Select either **Infoprint Manager Administration GUI** or **Infoprint Manager Operations GUI** and click **Submit**. The download program prompts you to accept a license agreement and to provide some information about yourself.
4. In the **Save As** window, select a temporary directory to store the Infoprint Manager GUI installation files. Note the drive and path name of this directory. Click **Save** to save the file in the specified directory.
5. Use an unzip utility, such as WINZIP or PKUNZIP, to extract the file to your directory of choice.
6. Navigate to the directory that holds the extracted files:
 - a. Double-click the **My Computer** icon.

- b. Double-click the icon for the drive where you extracted the files.
- c. Double-click the appropriate folder icons to find the directory containing the extracted files.
7. Double-click on the folder icon that corresponds to your preferred language.
8. Continue with the installation instructions under “Installing the Software” on page 56.

Locating Software on the CD-ROM

Follow these steps to locate the Infoprint Manager Operations GUI on the Client CD-ROM.

1. Insert the IBM Infoprint Manager Client CD-ROM into the drive.
2. Navigate to the `\ipgui\oper\locale` directory on your CD-ROM drive:
 - a. Double-click the **My Computer** icon.
 - b. Double-click the CD-ROM drive icon.
 - c. Double-click the **ipgui** folder icon.
 - d. Double-click the **oper** folder icon.
 - e. Double-click the folder icon that corresponds to your preferred language.
3. Continue with the installation instructions under “Installing the Software” on page 56.

Follow these steps to locate the Infoprint Manager Administration GUI on the Client CD-ROM.

1. Insert the IBM Infoprint Manager Client CD-ROM into the drive.
2. Navigate to the `\ipgui\admin\locale` directory on your CD-ROM drive:
 - a. Double-click the **My Computer** icon.
 - b. Double-click the CD-ROM drive icon.
 - c. Double-click the **ipgui** folder icon.
 - d. Double-click the **admin** folder icon.
 - e. Double-click the folder icon that corresponds to your preferred language.
3. Continue with the installation instructions under “Installing the Software” on page 56.

Three Views of the Infoprint Manager GUI with Infoprint Manager for AIX

The Infoprint Manager GUI offers three different views with Infoprint Manager for AIX : basic, advanced, and distributed. Although you can display any view, each one is most suitable for a particular situation.

- Use the *basic* view if your Infoprint server is configured to support:
 - Print on Demand (commercial) printing
 - Assignment of jobs to actual destinations when they are submitted
 - PostScript, TIFF, and variable data jobs
 - Jobs submitted from Infoprint Submit, Infoprint Scan, or Infoprint Library
- Use the *advanced* view if your Infoprint server is configured to support:
 - Data center (production) or distributed mission printing
 - Printer pooling for workload balancing
 - Jobs submitted from the command line, from workstation applications through Infoprint Select, or from other application programs

- Use the *distributed* view if you are a customer service representative at a help desk who needs to locate jobs and assist customers with printing problems.

Installing the Software

This section contains the following information:

- “Installing the Infoprint Manager Operations GUI Software on Infoprint Manager for Windows NT and Windows 2000”
- “Installing the Infoprint Manager Administration GUI Software on Infoprint Manager for Windows NT and Windows 2000”
- “Installing the Infoprint Manager Operations GUI Software on Infoprint Manager for AIX” on page 57
- “Installing the Infoprint Manager Administration GUI Software on Infoprint Manager for AIX” on page 58
- “Starting the Infoprint Manager GUIs on Infoprint Manager for Windows NT and Windows 2000” on page 59
- “Starting the Infoprint Manager GUIs on Infoprint Manager for AIX” on page 60

Installing the Infoprint Manager Operations GUI Software on Infoprint Manager for Windows NT and Windows 2000

Follow these steps to install the **Infoprint Manager Operations GUI** software.

1. Double-click the **ipgui.bat** icon to launch InstallShield.
2. Follow the instructions on the InstallShield screens.

Note: When installing over a previous version of the Infoprint Manager GUI software, click **yes** for all questions about replacing files. When installing on a Windows NT server, do not change any of the selected check boxes.

3. Use one of the following methods to add `c:\ipgui` to the PATH environment variable, where `c:` is the location where you installed the Infoprint Manager GUI:
 - On Windows 95 or Windows 98, open an MS-DOS window and edit the `autoexec.bat` file. At the end of the current value of the PATH variable, type the following:
`;c:\ipgui`
 - On Windows NT or Windows 2000, click the right mouse button on the **My Computer** icon on the desktop. Select **Properties**, then the **Environment** tab. In the **System Variables** window, select **PATH**. The current value of PATH appears in the **Value** field. At the end of this value, type the following:
`;c:\ipgui`

Click the **Set** button, then click on the **OK** button.

4. Restart the system to make the change in the PATH environment variable effective.

Installing the Infoprint Manager Administration GUI Software on Infoprint Manager for Windows NT and Windows 2000

Follow these steps to install the **Infoprint Manager Administration GUI** software.

1. Double-click the **ipguiadm.bat** icon to launch InstallShield.
2. Follow the instructions on the InstallShield screens.

Note: When installing over a previous version of the Infoprint Manager GUI software, click **yes** for all questions about replacing files. When installing on a Windows NT server, do not change any of the selected check boxes.

3. Use one of the following methods to add `c:\ipguiadm` to the PATH environment variable, where `c:` is the location where you installed the Infoprint Manager GUI:
 - On Windows 95 or Windows 98, open an MS-DOS window and edit the `autoexec.bat` file. At the end of the current value of the PATH variable, type the following:
`;c:\ipguiadm`
 - On Windows NT or Windows 2000, click the right mouse button on the **My Computer** icon on the desktop. Select **Properties**, then the **Environment** tab. In the **System Variables** window, select **PATH**. The current value of PATH appears in the **Value** field. At the end of this value, type the following:
`;c:\ipguiadm`

Click the **Set** button, then click on the **OK** button.
4. Restart the system to make the change in the PATH environment variable effective.

Installing the Infoprint Manager Operations GUI Software on Infoprint Manager for AIX

Follow these steps to install the **Infoprint Manager Operations GUI** software.




1. Double-click the **ipgui.bat** icon to launch InstallShield.
2. Follow the instructions on the InstallShield screens.

Note: When installing over a previous version of the Infoprint Manager GUI software, click **yes** for all questions about replacing files. When installing on a Windows NT server, do not change any of the selected check boxes.

3. Use one of the following methods to add `c:\ipgui` to the PATH environment variable, where `c:` is the location where you installed the Infoprint Manager GUI:
 - On Windows 95 or Windows 98, open an MS-DOS window and edit the `autoexec.bat` file. At the end of the current value of the PATH variable, type the following:
`;c:\ipgui`
 - On Windows NT or Windows 2000, click the right mouse button on the **My Computer** icon on the desktop. Select **Properties**, then the **Environment** tab. In the **System Variables** window, select **PATH**. The current value of PATH appears in the **Value** field. At the end of this value, type the following:
`;c:\ipgui`

Click the **Set** button, then click on the **OK** button.
4. Restart the system to make the change in the PATH environment variable effective.

When you install the Infoprint Manager Operations GUI, one of three desktop icons (or shortcuts) representing each view of the Infoprint Manager Operations GUI are installed on your desktop.

		
Basic Infoprint	Advanced Infoprint	Distributed Infoprint

Installing the Infoprint Manager Administration GUI Software on Infoprint Manager for AIX

Follow these steps to install the **Infoprint Manager Administration GUI** software.

1. Double-click the **ipguiadm.bat** icon to launch InstallShield.
2. Follow the instructions on the InstallShield screens.

Note: When installing over a previous version of the Infoprint Manager GUI software, click **yes** for all questions about replacing files. When installing on a Windows NT server, do not change any of the selected check boxes.

3. Use one of the following methods to add `c:\ipguiadm` to the PATH environment variable, where `c:` is the location where you installed the Infoprint Manager GUI:

- On Windows 95 or Windows 98, open an MS-DOS window and edit the `autoexec.bat` file. At the end of the current value of the PATH variable, type the following:

```
;c:\ipguiadm
```




- On Windows NT or Windows 2000, click the right mouse button on the **My Computer** icon on the desktop. Select **Properties**, then the **Environment** tab. In the **System Variables** window, select **PATH**. The current value of PATH appears in the **Value** field. At the end of this value, type the following:

```
;c:\ipguiadm
```

Click the **Set** button, then click on the **OK** button.

4. Restart the system to make the change in the PATH environment variable effective.

When you install the Infoprint Manager Administration GUI, one of three desktop icons (or shortcuts) representing each view of the Infoprint Manager Administration GUI are installed on your desktop.

		
Basic Administration Infoprint	Advanced Administration Infoprint	

Removing Unused Icons on Infoprint Manager for AIX

To remove the unused icons from the Windows desktop:

1. Point to the icon you want to remove.
2. Click the right mouse button.
3. Select **Delete**.

To remove unused icons from the **Start** menu:

1. Select **Settings** from the Start menu.
2. Select **Taskbar...**
3. Select the **Start Menu Programs** tab.
4. Select the icon you want to remove.
5. Select **Remove**.

Starting the Infoprint Manager GUIs

See the following for information on starting the Infoprint Manager GUIs:

- “Starting the Infoprint Manager GUIs on Infoprint Manager for Windows NT and Windows 2000”
- “Starting the Infoprint Manager GUIs on Infoprint Manager for AIX” on page 60

Starting the Infoprint Manager GUIs on Infoprint Manager for Windows NT and Windows 2000

To launch the Infoprint Manager Administration GUI, double-click the **Advanced Administration Infoprint** icon on your desktop. To launch the Infoprint Manager Operations GUI, double-click the **Advanced Infoprint** icon on your desktop.

Attention: The graphical part of the icons are identical (see Figure 5 for an illustration of the icon). When the icons are placed on your desktop, the words associated with the Infoprint Manager Administration GUI (**Advanced Administration Infoprint**) are usually truncated to **Advanced Administrati...** While the words associated with the Infoprint Manager Operations GUI (**Advanced Infoprint**) are not truncated.



Figure 5. The Infoprint Manager GUI icon

If the icon is not on the desktop, you may click **Start—>Programs—>Advanced Administration Infoprint** to launch the Infoprint Manager Administration GUI or **Start—>Programs—>Advanced Infoprint** to launch the Infoprint Manager Operations GUI.

Note: When you install the Infoprint Manager server software, you automatically install the Infoprint Manager Administration GUI and the Infoprint Manager Operations GUI on the same system. You can also install either the Infoprint Manager Administration GUI or the Infoprint Manager Operations GUI on remote systems by following the procedures described in “Installing the Infoprint Manager Administration GUI Software on Infoprint Manager for Windows NT and Windows 2000” on page 56 and “Installing the Infoprint Manager Operations GUI Software on Infoprint Manager for Windows NT and Windows 2000” on page 56. The Infoprint Manager Operations GUI provides a subset of the functionality available in the Infoprint Manager Administration GUI. This subset includes operator tasks.

The Infoprint Manager Administration GUI along with the Infoprint Manager Management Console allows the administrator to access almost all Infoprint Manager functions. The administrator can use the Infoprint Manager Management




Console to modify the authority of other users. See the Management Console help system and the **Infoprint Manager Procedures for administrators** (available at <http://www.ibm.com/printers> by following the Infoprint Manager link (under **Resources For**) to the Infoprint Manager for Windows NT and Windows 2000 site and then going to **Product Library** and selecting **Administrator** under Procedures or on the white Infoprint Manager Publications CD-ROM) for details.

When you first run the Infoprint Manager GUI, you must provide the host name or IP address and the port number of the Infoprint Manager server you want to communicate through. The default port number is 6874.




Starting the Infoprint Manager GUIs on Infoprint Manager for AIX

To launch either of the Infoprint Manager GUI programs (the Infoprint Manager Administration GUI or the Infoprint Manager Operations GUI), double-click the appropriate icon on your desktop for the view you are working with:

Infoprint Manager Administration GUI

		
Basic Administration Infoprint	Advanced Administration Infoprint	Distributed Administration Infoprint

Infoprint Manager Operations GUI

		
Basic Infoprint	Advanced Infoprint	Distributed Infoprint

If the icon is not on the desktop, you may click **Start—>Programs** and select the appropriate GUI label that you want to open. For example, click **Basic Administration Infoprint** or **Basic Infoprint**.

Note: When you install the Infoprint Manager server software, you automatically install the Infoprint Manager Administration GUI and the Infoprint Manager Operations GUI on the same system. You can also install either the Infoprint Manager Administration GUI or the Infoprint Manager Operations GUI on remote systems by following the procedures described “Installing the Infoprint Manager Administration GUI Software on Infoprint Manager for AIX” on page 58 and “Installing the Infoprint Manager Operations GUI Software on Infoprint Manager for AIX” on page 57. The Infoprint Manager Operations GUI provides a subset of the functionality available in the Infoprint Manager Administration GUI. This subset includes operator tasks.

The Infoprint Manager Administration GUI along with the Infoprint Manager Management Console allows the administrator to access almost all Infoprint Manager functions. The administrator can use the Infoprint Manager Management Console to modify the authority of other users. See the Management Console help system and the **Infoprint Manager Procedures for administrators** (available at <http://www.ibm.com/printers> by following the Infoprint Manager link (under

| **Resources For**) to the Infoprint Manager for Windows NT and Windows 2000 site
| and then going to **Product Library** and selecting **Operator** under Procedures or on
| the white Infoprint Manager Publications CD-ROM) for details.

When you first run the Infoprint Manager GUI, you must provide the host name or IP address and the port number of the Infoprint Manager server you want to communicate through. The default port number is 6874.

Uninstalling the Infoprint Manager GUIs

To uninstall the Infoprint Manager GUIs, follow these steps:

1. From the **Start** menu, click **Settings—>Control Panel**.
2. Double-click the **Add/Remove Programs** icon.
3. Select **Infoprint Manager Administration GUI** or **Infoprint Manager Operations GUI**.
4. Click the **Add/Remove** button.
5. Follow the instructions on the screens that display.

Chapter 10. Installing Infoprint Manager Notifications

Infoprint Manager Notifications enable a system to receive notification messages from Infoprint Manager server systems. You can install Infoprint Manager Notifications on any Windows 95, Windows 98, Windows NT, or Windows 2000 system. You automatically install this client software when you install the IBM Infoprint Manager server software. However, a system need not have the Infoprint Manager server software installed to use Infoprint Manager Notifications. Follow the procedures in this chapter if you want to use the Infoprint Manager Notifications software to monitor server messages from a remote system.

Before beginning the installation, determine whether you will download the Infoprint Manager Notifications software from the Web or will install directly from the Infoprint Manager Client CD-ROM. For instructions on downloading the most recent version of Infoprint Manager Notifications, see “Downloading the Software” on page 64. For instructions on installing the software from the CD-ROM, see “Locating Software on the CD-ROM” on page 65.

This document contains the following sections:

- “Preparing for Infoprint Manager Notifications”
- “Downloading the Software” on page 64
- “Locating Software on the CD-ROM” on page 65
- “Installing the Software” on page 65
- “Starting Infoprint Manager Notifications” on page 65
- “Uninstalling Infoprint Manager Notifications” on page 66

Use the client CD. Point to the appropriate Infoprint Notification Server. If the network is configured correctly, this should be a system called notification.

Preparing for Infoprint Manager Notifications

Infoprint Manager Notifications require the Java Runtime Environment (JRE) from IBM at version 1.1.8 and dated 22 March 2000. This is the only supported JRE for running Infoprint Manager Notifications.

To verify that you have the correct version of the JRE installed, follow these steps:

1. Type `jre -d` on an MS-DOS command line.
2. Verify that the first line of output from the command contains 118 in text that is similar to the following text:
`n118p-20000322`
3. If the output from the command does not contain the **118** string, uninstall the currently installed JRE component:
 - a. Uninstall JRE using **Add/Remove Programs** in the Control Panel.
 - b. Remove the JRE entry from the PATH environment variable.

If necessary, follow these steps to install the required JRE from the Client CD-ROM:

1. Insert the IBM Infoprint Manager Client CD-ROM into the drive.
2. Launch the `\jre\IBM-JRE-N118P-WIN32-X86` executable from the CD-ROM:
 - a. Double-click the **My Computer** icon.
 - b. Double-click the CD-ROM drive icon.

- c. Double-click the **jre** folder icon.
 - d. Double-click the **IBM-JRE-N118P-WIN32-X86.exe** icon.
3. Provide the information as prompted by the InstallShield program.
 4. After the InstallShield program terminates, use one of these methods to add `d:\ProgramFiles\IBM\JRE\1.1\bin` to the PATH environment variable, where *d*: is the drive where you installed the JRE:
 - On Windows 95 or Windows 98, open an MS-DOS window and edit the `autoexec.bat` file. At the end of the current value of the PATH variable, type the following:
`;d:\progra~1\IBM\JRE\1.1\bin`
 - On Windows NT, click the right mouse button on the **My Computer** icon. Select **Properties**, then the **Environment** tab. In the **System Variables** window, select **PATH**. The current value of PATH appears in the **Value** field. At the end of this value, type the following:
`;d:\Program Files\IBM\JRE\1.1\bin`

 Click the **Set** button, then click the **OK** button.
 - On Windows 2000, click the right mouse button on the **My Computer** icon. Select **Properties**, then the **Advanced** tab, then the **Environment Variables** button. In the **System Variables** window, select **PATH**. The current value of PATH appears in the **Value** field. At the end of this value, type the following:
`;d:\Program Files\IBM\JRE\1.1\bin`

 Click the **Set** button, then click the **OK** button.
 5. Restart the Windows system to make the change in the PATH environment variable effective.
 6. Type `jre -d` on an MS-DOS command line.
 7. Verify that the first line of output from the command contains **118** in text similar to the following text:
`n118p-20000322`

Downloading the Software

Follow this procedure to download the latest version of the Infoprint Manager Notifications software:

1. Go to the IBM Printing Systems Company home page at <http://www.ibm.com/printers>. Select the appropriate Infoprint Manager link from the list of products.
2. Click the **Downloads/free tools** link on the blue navigation bar on the left of the screen.
3. Select **Infoprint Manager Notifications** and click **Submit**. The download program prompts you to accept a license agreement and to provide some information about yourself.
4. In the **Save As** window, select a temporary directory to store the Infoprint Manager GUI installation files. Note the drive and path name of this directory. Click **Save** to save the file in the specified directory.
5. Use an unzip utility, such as WINZIP or PKUNZIP, to extract the file to your directory of choice.
6. Navigate to the directory that holds the extracted files:
 - a. Double-click the **My Computer** icon.
 - b. Double-click the C: drive icon (assuming that C: holds the extracted files).

- c. Double-click the appropriate folder icons to find the directory containing the extracted files.
7. Double click on the folder icon that corresponds to your preferred language.
8. Continue with the installation instructions under “Installing the Software”.

Locating Software on the CD-ROM

Follow these steps to locate Infoprint Manager Notifications from the Client CD-ROM.

1. Insert the Infoprint Manager Client CD-ROM into the drive.
2. Double-click the **My Computer** icon.
3. Double-click the CD-ROM drive icon.
4. Double-click the **notification** folder icon.
5. Continue with the installation instructions under “Installing the Software”.

Installing the Software

Follow these steps to install the Infoprint Manager Notifications software.

1. Double-click the **Setup.bat** icon to launch InstallShield.
2. Follow the instructions on the InstallShield screens.
3. Use one of the following methods to add `d:\notification` to the PATH environment variable, where *d*: is the location where you installed Infoprint Manager Notifications:

- On Windows 95 or Windows 98, open an MS-DOS window and edit the `autoexec.bat` file. At the end of the current value of the PATH variable, type the following:

```
;d:\notification
```

- On Windows NT, click the right mouse button on the **My Computer** icon. Select **Properties**, then the **Environment** tab. In the **System Variables** window, select **PATH**. The current value of PATH appears in the **Value** field. At the end of this value, type the following:

```
;d:\notification
```

Click the **Set** button, then click the **OK** button.

- On Windows 2000, click the right mouse button on the **My Computer** icon. Select **Properties**, then the **Advanced** tab, then the **Environment Variables** button. In the **System Variables** window, select **PATH**. The current value of PATH appears in the **Value** field. At the end of this value, type the following:

```
;d:\notification
```

Click the **Set** button, then click the **OK** button.

4. Restart the system to make the change in the PATH environment variable effective.

Starting Infoprint Manager Notifications

To launch Infoprint Manager Notifications, click **Start**—>**Programs**—>**Infoprint Manager Notifications** to run the software.

Note: Infoprint Manager Notifications are installed automatically when the Infoprint Manager server software is installed. This interface may also be installed on remote systems by following the procedure described in “Installing the Software” on page 65.

When you first run Infoprint Manager Notifications, you will be prompted for some configuration information. You must obtain this information from your Infoprint Manager administrator. If your network is configured correctly, you should be able to accept the default settings in the dialog that displays. For more information, click the **Help** button in this dialog.

Uninstalling Infoprint Manager Notifications

To uninstall Infoprint Manager Notifications, follow these steps:

1. From the **Start** menu, click **Settings—>Control Panel**.
2. Double-click the **Add/Remove Programs** icon.
3. Select **Infoprint Manager Notifications**.
4. Click the **Add/Remove** button.
5. Follow the instructions on the screens that display.

Chapter 11. Installing Infoprint Select

Infoprint Select allows you to submit jobs to Infoprint Manager from word processors, spreadsheets, and other desktop applications. It also provides you with a powerful command line which you can use to interface more directly with Infoprint Manager and to specify AFP print options. This section contains procedures for installing and configuring Infoprint Select on the Windows platform. The following topics are covered:

- “Understanding Commands”
- “Preparing to Install Infoprint Select” on page 68
- “Installing Infoprint Select from the Web” on page 68
- “Installing Infoprint Select from a CD-ROM” on page 68
- “Configuring the Server to Work with Infoprint Select” on page 69
- “Configuring Infoprint Select Client Systems” on page 71

Understanding Commands

Typically, Infoprint Select is used to allow users to print to Infoprint Manager destinations from existing Windows applications (usually through the **Print** option of the **File** menu). However, installing Infoprint Select also provides the following POSIX commands which can be issued at a DOS prompt on the client system:

- **pdclean**
- **pdcreate**
- **pddelete**
- **pddisable**
- **pdenable**
- **pdls**
- **pdmod**
- **pdq**
- **pdpause**
- **pdpr**
- **pdpromote**
- **pdreorder**
- **pdresubmit**
- **pdresume**
- **pdrm**
- **pdset**
- **pdshutdown**
- **pdspace**

You can find detailed documentation for these commands in the *Infoprint Manager: Reference* publication (S544-5475).

By default, Infoprint Manager security allows everyone to use the **pdpr**, **pdls**, and **pdq**, while only certain groups can use the other commands. Refer to the **Managing Security** topic under **Reference Information** on the Infoprint Manager for Windows NT and Windows 2000 site on the IBM Printing Systems web site.

Preparing to Install Infoprint Select

For all Infoprint Select installations, you will be prompted for the host name of the Infoprint Manager server system and the socket (port) it is using for communication.

Before beginning the installation, determine whether you will be installing Infoprint Select from the Web or from a product CD-ROM. Then follow the procedures under either "Installing Infoprint Select from the Web" or "Installing Infoprint Select from a CD-ROM".

Installing Infoprint Select from the Web

The most recent version of Infoprint Select is available for download on the World Wide Web. To install Infoprint Select from the web, follow these steps:

1. Go to the IBM Printing Systems home page at <http://www.ibm.com/printers>.
2. Click your choice for Infoprint Manager on the list of sitelets.
3. Click **Downloads/free tools** on the navigation bar.
4. Select the appropriate Infoprint Select application and click the **Submit** button. The Infoprint Select license agreement displays.
5. Read the terms of the license. If you agree with the terms, click the **I accept this licence agreement** button. (If you do not agree to the license terms, you may not download Infoprint Select.)
6. Provide the information as prompted and click **Begin the Download**.
7. In the **Save As** window, select a temporary directory where you want to store the executable file. Note the drive and path name of this directory and click the **Save** button.
8. Navigate to the directory where you saved the downloaded file and double-click on the **Select** icon.
9. Follow the instructions on the InstallShield screens to install the program.

Installing Infoprint Select from a CD-ROM

Follow these steps to install Infoprint Select from a CD-ROM:

1. If available, insert the most recent Infoprint Manager Service (CLIENT) CD-ROM into your CD-ROM drive. Otherwise, insert the appropriate Infoprint Manager Client CD-ROM into the drive.
2. Navigate to the *d:\select\win\language* directory, where *d*: is the CD-ROM drive and *language* corresponds to your preferred language.
 - a. Double-click the **My Computer** icon.
 - b. Double-click the CD-ROM drive icon.
 - c. Double-click the **select** folder icon.
 - d. Double-click the **win** folder icon.
 - e. Double-click the folder icon that corresponds to your preferred language.
3. Double-click the **Select** icon.
4. Follow the instructions on the InstallShield screens to install the program.

Note: When you are installing Infoprint Select for use with an AIX Server and you want to use DCE, complete the following:

1. Select **Custom** on the **Setup Type** window.
2. Ensure that both **Program Files** and **DCE support** are selected on the next window.

3. Proceed with the InstallShield instructions.

Installing DCE Support for Infoprint Select with an Infoprint Manager for AIX Server

If you have IBM Distributed Computing Environment (DCE) for AIX installed on your computer at version 2.0 or later, you may choose to install DCE Support through the Custom installation method on InstallShield. DCE Support will allow you to use administrative Infoprint Manager commands like **pdenable**, **pdpause**, and **pdcreate** when communicating with Infoprint Manager servers that require DCE authorization. In addition, the Infoprint Manager administrator may restrict access to a printer to users who are logged into DCE with a particular DCE user ID or DCE group ID.

Before you can use the administrative commands or print to a restricted printer, you must do the following within the InstallShield installation:

1. Select **Custom** on the **Setup Type** window.
2. Ensure that both **Program Files** and **DCE support** are selected on the next window.
3. Proceed with the InstallShield instructions.
4. Log into DCE as an authorized user or member of an authorized group.

Note: When you are printing to a DCE destination that defines printing as a protected operation, you may need to do the following:

- When you are unsure if the DCE destination defines printing as a protected operation, it is a good idea to try printing a test page to the destination to see if it is successful. In most cases, destinations define protection for a few administrators, but allow anyone to print to them. When you receive an error message asking you to run the Infoprint Select Login program, the destination is probably protected.
- Infoprint Select tries to automatically detect your DCE credentials when you log on if you are using an Integrated DCE Login. If you aren't using an Integrated DCE Login, you need to run the Infoprint Select Login program from the Infoprint Select folder in your **Start** menu when your destination is DCE print protected. When you try to print to a DCE print-protected destination and Select is unable to determine your credentials, you receive an error message asking you to run the Infoprint Select Login program from the Infoprint Select folder in your **Start** menu.
- DCE credentials can expire when you are logged in for too long. If this happens, you receive an error message asking you to run the Infoprint Select Login program to refresh your credentials the next time you try to print to a DCE print-protected destination.

Configuring the Server to Work with Infoprint Select

In order for Infoprint Select to work properly with jobs submitted from Windows applications, it is necessary to configure the appropriate Infoprint Manager destinations to accept jobs from Infoprint Select:

1. Disable each destination that is to receive jobs from Infoprint Select with the Infoprint Manager GUI.
2. Modify the **Set** environment variable as follows:
 - On Windows 95/98, InstallShield modifies the environment variable, so no action is required for this step.

- On Windows NT, click the right mouse button on the **My Computer** icon. Select **Properties**, then the **Environment** tab. In the **System Variables** window:

- Click in the white space after the last variable entry. (This clears the variable and value fields at the bottom of the window.)
- In the variable and value fields, enter the following:

Variable	PDHOST
Value	<i>servername</i>

and then click the **Set** button.

- Again in the variable and value fields, enter the following:

Variable	PD_SOCKET
Value	<i>socketnumber</i> , usually 6874

and then click the **Set** button, then the **Apply** and **OK** buttons.

- On Windows 2000, click the right mouse button on the **My Computer** icon. Select **Properties**, then the **Advanced** tab, then the **Environment Variables** button. In the **System Variables** window, click the **New** button and enter the following values:

Variable Name	PDHOST
Variable Value	<i>servername</i>

and click the **OK**.

- Again in the **System Variables** window, click the **New** button and enter the following values:

Variable Name	PD_SOCKET
Variable Value	<i>socketnumber</i> , usually 6874

and click the **OK** three times.

- On the Windows desktop of the server system, single-click the **Start** button.
- Select **Programs**.
- Select **Command Prompt**. An MS-DOS window opens.
- Issue the following command for each destination that is to receive jobs from Infoprint Select:

```
pdset -x "windows-nt-driver-name=DriverNames" DestinationName
```

In the command above, *DestinationName* is the name of the logical or correctly configured actual destination. *DriverNames* is a list of 32-bit drivers that the destination supports. For example, the following command enables the magic-ld destination to receive jobs from Infoprint Select using the IBM Infoprint 60 and IBM Infoprint Generic drivers:

```
pdset -x "windows-nt-driver-name='IBM Infoprint 60' 'IBM Infoprint Generic'" magic-ld
```

- Enable each destination that is to receive jobs from Infoprint Select with the Infoprint Manager GUI.

Complete all server configuration tasks before you begin any of the procedures below. Determine the destinations that Windows 95 applications can access through Select.

Configuring Infoprint Select Client Systems

This section describes how to configure Infoprint Select clients to allow print job submission from Windows applications to destinations managed by an Infoprint Manager server. This section includes the following topics:

- “Collecting Required Information”
- “Adding Your First Infoprint Select Printer on Windows 95/Windows 98 Systems”
- “Adding an Additional Infoprint Select Printer on Windows 95/Windows 98 Systems” on page 73
- “Adding Your First Infoprint Select Printer on Windows NT Systems” on page 73
- “Adding An Additional Infoprint Select Printer on Windows NT Systems” on page 75
- “Adding Your First Infoprint Select Printer on Windows 2000 Systems” on page 75
- “Adding An Additional Infoprint Select Printer on Windows 2000 Systems” on page 77

Collecting Required Information

Before you can print to an Infoprint Manager destination from a Windows application, you must add an Infoprint Select printer to your Windows environment. Collect the following information before you begin:

- The host name or IP address of the Infoprint Manager server.
- The port number of the Infoprint Manager server. The default is 6874.
- The names of destinations (printers) to use.
- The names of the drivers to associate with each destination.

Adding Your First Infoprint Select Printer on Windows 95/Windows 98 Systems

Follow this procedure to add an Infoprint Select printer to your Windows 95/98 system:

1. On the Windows desktop, double-click the **My Computer** icon.
2. Double-click the **Printers** folder icon.
3. Double-click the **Add Printer** icon. The **Add Printer Wizard** window displays. Click **Next**.
4. Select the **Local Printer** radio button and click **Next**.
5. Click the **Have Disk** button.
 - a. Click the **Browse** button.
 - b. Navigate to the directory where you installed Infoprint Select. (By default, this is c:\Infoprint.) This directory holds the required ibmprt95.inf file.
 - c. Click **OK**.
 - d. Click **OK** to close the **Install from Disk** window.
6. Select a printer driver that is suitable for the printer you want to use and click **Next**.
7. If the next dialog is a notification that the printer driver already exists, select the **Replace existing driver** radio button. Note that this overrides the recommended setting. Then click **Next**.
8. Select **Infoprint (Infoprint Select)** from the list of **Available ports**. (You may need to scroll down to find it. If it is not there, restart your system. If it is still not there, check your installation of Infoprint Select.)
9. Click the **Configure Port** button. The **Infoprint Port** window displays.

10. Select **Infoprint Manager** from the pull-down list for the **Print Server** field.
11. Enter the host name of the Infoprint Manager server in the **Host Name** field.
12. Enter the port number of the Infoprint Manager server in the **Host Port** field. The default port number is 6874.
13. Click the **Refresh Printer Selection List** button.
14. Select the appropriate printer from the list.
15. Click the **OK** button.
16. Click **Next**.
17. Enter a name for the printer in the field provided. This is the name by which the printer will be known to your Windows applications and the Windows desktop. Click **Next**.
18. Select the **No** radio button when asked **Would you like to print a test page?** and click **Finish**.

Note: The printer does not appear instantaneously in the Printers window.

If an **Insert Disk** dialog appears, click **OK** to close it.

At this point, a **Copying Files** dialog may appear. In all likelihood, the required file (adfonts.mfm) is already present on your system. If the **Copying Files** dialog does appear, follow these steps:

1. Click the **Browse** button.
2. If you are using Windows 95, navigate to c:\win95\system (assuming that your operating system is installed on the C: drive). If you are using Windows 98, navigate to c:\windows\system.
3. Click the **OK** button.
4. Click **OK** to close the **Copying Files** dialog and to complete the configuration.

If other files are not found, follow a similar procedure to copy the files from either the \win95\system directory (\windows\system under Windows 98) or the Infoprint Select installation directory. You should find all missing files in one of these two locations.

If you cannot find a file in either of these directories, you must retrieve it from the operating system CD-ROM or floppy disks.

Now you need to specify the logical destination name by doing the following:

1. Open an MS-DOS window and edit the autoexec.bat file.
2. Add the following **Set** variable:
`SET PDPRINTER=logicaldestinationname`
3. Save your changes and close the autoexec.bat file.
4. Restart the windows system to make this change effective.

If you want to add additional Infoprint Select printers to your environment, follow the procedure described in "Adding an Additional Infoprint Select Printer on Windows 95/Windows 98 Systems" on page 73.

Changing Print Driver Properties

Next, you need to configure the print driver to work correctly with Infoprint Select to send binary data instead of ASCII data by doing the following:

1. From the **Printers** window, select the printer that you just created. Click **File—>Properties** and the *Printer Properties* appears, where *Printer* is the printer that you just created.
2. Click on the **PostScript** tab and click the **Advanced...** button. The **Advanced PostScript Options** dialog box appears.
3. Click the **Pure Binary Data** button.
4. Click **OK** on the **Advanced PostScript Options** dialog box.
5. Click **OK** on the **Printers** window.

Adding an Additional Infoprint Select Printer on Windows 95/Windows 98 Systems

Before adding an Infoprint Select printer to your Windows NT/Windows 2000 environment, you must first collect the information described in “Collecting Required Information” on page 71. Also, you must perform the appropriate server configuration as described in “Configuring the Server to Work with Infoprint Select” on page 69.

To print to an additional Infoprint Select printer, you must add an additional Infoprint Select port. Otherwise the configuration is similar to that described above in “Adding Your First Infoprint Select Printer on Windows 95/Windows 98 Systems” on page 71.

Follow these steps to add an additional Infoprint Select port:

1. On the Windows desktop, double-click the **My Computer** icon.
2. Double-click the **Printers** folder.
3. In the **Printers** window, right-click the icon for the first Infoprint Select printer you created and select **Properties** from the pop-up list.
4. In the **Properties** window, select the **Details** tab.
5. In the **Details** tab, click the **Add Port** button.
6. In the **Add Port** window, click the **Other** radio button.
7. Select **Infoprint Select** as the type of port and click **OK**.
8. In the **Infoprint Port** dialog, type a name for the new port, such as Infoprint-2. (Use a name that is not used by any other port.) Then click **OK**.
9. Select **Infoprint (Infoprint Select)** from the **Print to the following port** pulldown list. This will restore the original port assignment for the initial Infoprint Select printer. (The port you just created still exists and will be soon be used for the additional Infoprint Select printer.)
10. Click **OK** to close the **Properties** window.

After creating this new Infoprint Select port, follow the steps described in “Adding Your First Infoprint Select Printer on Windows 95/Windows 98 Systems” on page 71, but select the new Infoprint Select port (for example, Infoprint-2) in step 8. Do not forget to configure the new port in step 9.

Adding Your First Infoprint Select Printer on Windows NT Systems

Before adding an Infoprint Select printer to your Windows NT environment, you must first perform these steps:

- Collect the information described in “Collecting Required Information” on page 71.
- Configure the server as described in “Configuring the Server to Work with Infoprint Select” on page 69.

- If you plan to print to IBM AFP printers, unpack the AFP printer drivers as described in the AFP Driver readme file on the Infoprint Manager Client CD-ROM. This file is in the *d:\drivers\afp\English* folder, where *d:* is your CD-ROM drive.

Follow these steps to add an Infoprint Select printer to your Windows NT system:

1. On the Windows desktop, double-click the **My Computer** icon.
2. Double-click the **Printers** folder icon.
3. Double-click the **Add Printer** icon. The **Add Printer Wizard** window displays.
4. Select the **My Computer** radio button and click **Next**.
5. Check the **Infoprint Select** check box from the list of **Available ports**. (You may need to scroll down to find it. If it is not there, restart your system. If it is still not there after a system restart, check your installation of Infoprint Select.)
6. Click the **Configure Port** button. The **Infoprint Port** window displays.
7. Select **Infoprint Manager** from the pulldown list for the **Print Server** field.
8. Enter the host name of the Infoprint Manager server in the **Host Name** field.
9. Enter the port number of the Infoprint Manager server in the **Host Port** field. The default port is 6874.
10. Click the **Refresh Printer Selection List** button.
11. Select the appropriate printer from the list.
12. Click the **OK** button.
13. Click **Next**.
14. If you are installing an AFP Printer, go to the next step; otherwise, select the printer you wish to install, click **Next**, and go to 17.
15. Click the **Have Disk** button.
 - a. Click the **Browse** button.
 - b. Navigate to the directory where you unpacked the AFP printer drivers.
 - c. Select the *cwbafpsa.inf* file.
 - d. Click the **Open** button.
 - e. Click **OK**.
 - f. Select a printer driver that is suitable for the printer you want to use.

Note: If you do not know what printer driver to use, try the IBM AFP 240 driver. This driver can be used with many AFP printers.
 - g. Click **Next**.
16. If the next dialog is a notification that the printer driver already exists, select the **Replace existing driver** radio button. Note that this overrides the recommended setting. Then click **Next**.
17. Enter a name for the printer in the field provided. This is the name by which the printer will be known to your Windows applications and the Windows desktop. Click **Next**.
18. Confirm that the **Not shared** radio button is selected.
19. Select the **No** radio button when asked **Would you like to print a test page?** and click **Finish**.

A **Files Needed** dialog may open at this point. In all likelihood, the file you need (*pscript.dll*) is already present on your system. If the **Files Needed** dialog does appear, follow these steps:

1. Click the **Browse** button.

2. Navigate to the c:\winnt\system32 directory (assuming that your operating system is installed on the C: drive).
3. Click the **Open** button.
4. Click **OK**.

If the pscript.dll file is not found in this directory, you must load it from the operating system CD-ROM. To do this, follow these steps:

1. Insert the Windows NT operating system CD-ROM.
2. Click the **Browse** button on the **Files Needed** dialog.
3. Navigate to the d:\i386\Psript.dl_ file (where *d:* is your CD-ROM drive).
4. Click **Open** and then **OK** to complete the configuration.

If you want to add additional Infoprint Select printers to your environment, follow the procedure described in “Adding An Additional Infoprint Select Printer on Windows NT Systems”.

Adding An Additional Infoprint Select Printer on Windows NT Systems

Before adding an Infoprint Select printer to your Windows NT environment, you must first collect the information described in “Collecting Required Information” on page 71. Also, you must perform the appropriate server configuration as described in “Configuring the Server to Work with Infoprint Select” on page 69.

To print to an additional Infoprint Select printer, you must add an additional Infoprint Select port. Otherwise the configuration is similar to that described above in “Adding Your First Infoprint Select Printer on Windows NT Systems” on page 73.

To add an additional Infoprint printer to your Windows NT environment, follow these steps:

1. On the Windows desktop, double-click the **My Computer** icon.
2. Double-click the **Printers** folder icon.
3. Double-click the **Add Printer** icon. The **Add Printer Wizard** window displays.
4. Select the **My Computer** radio button and click **Next**.
5. Click the **Add Port** button.
6. Select **Infoprint Select** from the list of **Available Printer Ports**.
7. Click the **New Port** button.
8. In the dialog that opens, type a name for the new port, such as Infoprint-2, and click **OK**. (Use a name that no other port uses.)
9. Click the **Close** button. (Note that the check box for the port just added is selected.)
10. Continue with step 6 of the procedure documented in “Adding Your First Infoprint Select Printer on Windows NT Systems” on page 73, configuring the new port you just added.

Adding Your First Infoprint Select Printer on Windows 2000 Systems

Before adding an Infoprint Select printer to your Windows 2000 system, you must first perform these steps:

- Collect the information described in “Collecting Required Information” on page 71.
- Configure the server as described in “Configuring the Server to Work with Infoprint Select” on page 69.

Follow these steps to add an Infoprint Select printer to your Windows 2000 system:

1. From the Windows desktop, click **Start**—>**Settings**—>**Printers**—>**Add Printer**.
2. The **Add Printer Wizard** window displays. Click **Next**.
3. The **Local or Network Printer** dialog appears. Select the **Local printer** button and ensure that the **Automatically detect and install my Plug and Play Printer** button is **not** selected. Click **Next**.
4. The **Select the Printer Port** dialog appears. Check the **Use the following port** button, scroll down the list of ports, select the **Infoprint Select** port, and click **Next**.
5. On the next **Add Printer Wizard** screen, select the manufacturer and printer model of your printer and then click **Next**.
6. If the driver for your printer is already installed, the **Use Existing Driver** dialog appears. Click **Next**.
7. The **Name your Printer** dialog appears. Enter a name for the printer in the field provided. This is the name by which the printer will be known to your Windows applications and the Windows desktop. Click **Next**.
8. Select the **Do not share this printer** radio button and click **Next**.
9. Select the **No** radio button when asked **Would you like to print a test page?** and click **Next**.
10. Click **Finish**.
11. From the Windows desktop, click **Start**—>**Settings**—> and double-click **Printers**.
12. The **Printers** window appears. Select the **File** menu and then select **Server Properties....**
13. The **Print Server Properties** window opens.
14. Select the **Ports** tab to display the list of ports. Highlight the port you want to configure and then click the **Configure Port...** button.
15. The **Infoprint Port** window appears.
16. Select **Infoprint Manager** from the pulldown list for the **Print Server** field.
17. Enter the host name of the Infoprint Manager server in the **Host Name** field.
18. Enter the port number of the Infoprint Manager server in the **Host Port** field. The default port is 6874.
19. Click the **Refresh Printer Selection List** button.
20. Select the appropriate printer from the list.
21. Click the **OK** button.
22. Click **Close**.

A **Files Needed** dialog may open at this point. In all likelihood, the file you need (pscript.dll) is already present on your system. If the **Files Needed** dialog does appear, follow these steps:

1. Click the **Browse** button.
2. Navigate to the c:\winnt\system32 directory (assuming that your operating system is installed on the C: drive).
3. Click the **Open** button.
4. Click **OK**.

If the pscript.dll file is not found in this directory, you must load it from the operating system CD-ROM. To do this, follow these steps:

1. Insert the Windows 2000 operating system CD-ROM.
2. Click the **Browse** button on the **Files Needed** dialog.
3. Navigate to the `d:\1386\Pscript.dl_` file (where *d:* is your CD-ROM drive).
4. Click **Open** and then **OK** to complete the configuration.

If you want to add additional Infoprint Select printers to your environment, follow the procedure described in “Adding An Additional Infoprint Select Printer on Windows 2000 Systems”.

Adding An Additional Infoprint Select Printer on Windows 2000 Systems

Before adding an Infoprint Select printer to your Windows 2000 environment, you must first collect the information described in “Collecting Required Information” on page 71. Also, you must perform the appropriate server configuration as described in “Configuring the Server to Work with Infoprint Select” on page 69.

To print to an additional Infoprint Select printer, you must add an additional Infoprint Select port. Otherwise the configuration is similar to that described above in “Adding Your First Infoprint Select Printer on Windows 2000 Systems” on page 75.

To add an additional Infoprint printer to your Windows 2000 system, follow these steps:

1. From the Windows desktop, click **Start—>Settings—>Printers—>Add Printer**.
2. The **Add Printer Wizard** window displays. Click **Next**.
3. The **Local or Network Printer** dialog appears. Select the **Local printer** button and ensure that the **Automatically detect and install my Plug and Play Printer** button is **not** selected. Click **Next**.
4. Click the **Create a new port** button and highlight **Infoprint Select** from the pull-down list. Click **Next**.
5. In the dialog that opens, type a name for the new port, such as Infoprint-2, and click **OK**. (Use a name that no other port uses.)
6. Continue with step 5 of the procedure documented in “Adding Your First Infoprint Select Printer on Windows 2000 Systems” on page 75, configuring the new port you just added.

Chapter 12. Setting Up Gateway Printing

If you do not want to install Infoprint Select on a workstation, you can still submit print jobs to Infoprint Manager through an Infoprint gateway. To do so, you must add a printer to your desktop.

There are two kinds of Infoprint gateways:

- A Windows gateway printer is a Windows shared printer that allows users anywhere in the network to submit print jobs through Infoprint Manager.
- Infoprint Manager provides an Internet Printing Protocol (IPP) gateway. The IPP gateway allows users anywhere in the network who have IPP client software installed to submit print jobs through Infoprint Manager, even to printers that are not IPP-enabled.

Adding a Windows gateway printer to Your Desktop

To add a Windows gateway printer to your desktop, follow these steps:

1. Ask your system administrator for the share name of the Windows gateway printer.
2. Follow the standard procedure for adding a network printer to your desktop. This procedure depends on the operating system that you use. For example, on Windows systems, use the **Add Printer Wizard**. When you are prompted for the name of the printer to connect to, enter the share name of the Windows gateway printer.

After you have established a connection to the Windows gateway printer, you can print to it just as you would print to any other printer.

Note: When Infoprint Manager is uninstalled, any Windows Gateway printers that were installed are still present on the system (as you can see by clicking **Start → Settings → Printers**), but the port assigned to the Windows Gateway printers is deleted. Therefore, you have Windows Gateway printers with no port. If you try to print to one of these Windows Gateway printers, you will get an application-dependent message that does not identify this problem. You must manually delete the Windows Gateway printer from your desktop after the uninstall.

Adding a Printer that Uses the IPP Gateway to Your Desktop

To add a printer that uses the IPP Gateway to your desktop, follow these steps:

1. Ask your system administrator for the address of the printer.
2. Follow the instructions provided with your IPP client software for adding a printer to your desktop.

After you have added the printer to your desktop, you can print to it just as you would print to any other printer.

Chapter 13. Installing the AFP Driver

The Infoprint AFP Driver software allows you to produce Advanced Function Presentation (AFP) output from regular desktop applications. This allows you to use the powerful features of AFP in the widest range of situations. Used in conjunction with Infoprint Select, the AFP Driver provides a high degree of control over the appearance of your printed documents. This section contains procedures for installing and configuring the Infoprint AFP Driver on the Windows platform.

Note: For the most current AFP Driver in English and other languages, go to the IBM Printing Systems site at <http://www.ibm.com/printers>.

Installing the Software

Follow these steps to install the Infoprint AFP Driver from a CD-ROM:

1. If available, insert the most recent Infoprint Manager Service (CLIENT) CD-ROM into your CD-ROM drive. Otherwise, insert the appropriate Infoprint Manager Client CD-ROM into the drive.
2. Navigate to the *d:\drivers\afp\windowsfolder\language* directory, where *d:* is the CD-ROM drive, *windowsfolder* is either WinNT or Win9X, and *language* corresponds to your preferred language.
 - a. Double-click the **My Computer** icon.
 - b. Double-click the CD-ROM drive icon.
 - c. Double-click the **drivers** folder icon.
 - d. Double-click the **afp** folder icon.
 - e. Double-click the **WinNT** or **Win9X** folder icon.
 - f. Double-click the folder icon that corresponds to your preferred language.
3. Unpack the driver to your hard drive using the instructions in the AFP Drivers readme file on the Infoprint Manager Client CD-ROM.

Configuring the Software

To configure the driver, you must simply associate it with a Windows printer.

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