

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 from the IBM Printing Systems website at <http://www.ibm.com/printers>.

IBM will update the web version of this document regularly. You can download it in **PDF** format by going to the IBM Printing Systems website at <http://www.ibm.com/printers> and clicking on the Infoprint Manager link (under **Resources For**), then selecting the IBM Infoprint Manager for Windows NT and Windows 2000 link. On the product home page, select **Product Library** from the list in the right-hand navigation bar, and then click the **Getting Started** link under the **Publications** heading.

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 5 for procedures for TCP/IP configuration.

If you plan to use PSF Direct to print from remote host systems (such as MVS™, iSeries, 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 your publications CD and on the World Wide Web at <http://www.ibm.com/printers>. On the Printing Systems homepage, click Infoprint Manager under **Resources for**, then click Infoprint Manager for Windows NT and Windows 2000 on the Infoprint Manager Family homepage. Select **Product Library** from the drop-down list in the right hand navigation bar, and click the appropriate **PSF Direct Configuration Guide** for your system.

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 installing an Infoprint Manager server on a Windows NT/Windows 2000 system. All of the following components are installed with the server; you cannot eliminate any of them.

- **Infoprint Manager server**
- **Infoprint Manager graphical user interfaces (GUIs)**
Allows you to administer print operations from the system that the server is installed on.
- **Infoprint Manager Notifications server**
Allows the Infoprint Manager server to send status messages about Infoprint objects to Infoprint Manager Notifications clients.
- **Infoprint Manager Notifications client**
Allows the Infoprint Manager server to display messages on the system the it is installed on.
- **IBM TCP/IP Network Port Monitor (Version 1.6 for Windows NT and Version 2.0 for Windows 2000)**
Has been included in all of the Infoprint Manager server PTFs since December 2001 (PTF UR52402), and is installed when you install the

PTF. If you already have the IBM TCP/IP Network Port Monitor installed, the Infoprint Manager installer checks what level it is. If yours is an older level, it will be updated.

- **Infoprint Manager Line Printer Daemon (LPD) service**

Allows the Infoprint Manager server to accept print jobs from other operating systems using a Line Printer (LPR) client. The Infoprint Manager LPD replaces the Microsoft TCP/IP Printing LPD, however it submits received files directly to an Infoprint destination instead of a Windows printer. It also supports the -o options that are available with some LPR clients. (-o options allow you to specify advanced Infoprint print options such as formdefs and pagedefs.)

IBM Infoprint Manager: Common Client

Contains the following software. Each of these items has its own installer and must be installed separately. All of these components can be installed on multiple systems.

- **Infoprint Select**

Enables job submission from remote clients to the Infoprint Manager server.

- **Infoprint Manager GUIs**

Allows you to administer and oversee print operations from remote systems.

- **Infoprint Manager Notifications**

Enables remote systems to receive messages from the Infoprint Manager server.

- **AFP™ Printer Driver for Windows**

Allows you to create a Windows printer that generates AFP output.

- **IBM Cross Platform Technologies for Windows (CPT) version 2.0 Runtime Environment**

Must be installed if you want to use the Infoprint Manager GUIs or Infoprint Manager Notifications.

- **colorripd**

Used to manage the color rasterized image processing (RIP) for the InfoColor 70 and the Infoprint Color 100. Only supported on Infoprint Manager for AIX.

- **Lightning Fax client**

Supported on Infoprint Manager for AIX only.

- **Infoprint Manager HP client**

Installs the Infoprint Manager commands on an HP-UX system. Supported on Infoprint Manager for AIX only.

- **Infoprint Manager Sun Client**

Installs the Infoprint Manager commands on a Sun Solaris system. Supported on Infoprint Manager for AIX only.

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.

Optional CD-ROMs

IBM Infoprint Manager for Windows NT and Windows 2000: Page Printer Formatting Aid for Windows

The Page Printer Formatting Aid (PPFA) for Windows optional feature of Infoprint Manager for Windows NT and Windows 2000 enables users to create AFP printing resources called page definitions and form definitions. These definitions specify how pages of printed output are formatted and how the printer should handle the physical sheets of paper. Using PPFA, you can turn unformatted z/OS or ASCII line data into highly effective documents without making changes to the application program.

Infoprint Manager SAP Print Feature

The Infoprint Manager SAP Print Feature allows SAP users to submit SAP ABAP and OTF print jobs to Infoprint Manager, have them transformed into AFP, and then printed on IBM printers. For additional information, refer to the IBM Printing Systems website at <http://www.ibm.com/printers>.

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.	

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

Control Panel Prompt	Description	Value
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 Note: It is strongly recommended that you specify no for DHCP.
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.	
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.	

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

Control Panel Prompt	Description	Value
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. For additional information about setting up a separate printer network, refer to the Administrator Procedure *Using Multiple Network Adapter Cards*.

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.	

Table 2. Printer Network TCP/IP Configuration Worksheet (continued)

Control Panel Prompt	Description	Value
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.
8. Install the most recent service update. Refer to “Accessing the latest information and fixes for Infoprint Manager for Windows NT and Windows 2000” on page 11 for information and instructions about where to find product updates.

The following software components are now installed on your system:

- Infoprint Manager server
- Infoprint Manager Management Console
- Infoprint Manager Administration GUI
- Infoprint Manager Operations GUI
- Infoprint Select
- Infoprint Notification Server
- Infoprint Manager Notifications
- IBM TCP/IP Network Port Monitor
- Infoprint Manager LPD service

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 7, “Creating actual destinations” on page 43.

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

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

Accessing the latest information and fixes for Infoprint Manager for Windows NT and Windows 2000

You can find updated documentation and download fixes for Infoprint Manager for Windows NT and Windows 2000 from the IBM Printing Systems website at <http://www.ibm.com/printers>. On the Printing Systems homepage, click Infoprint Manager under **Resources for**, then click Infoprint Manager for Windows NT and Windows 2000 on the Infoprint Manager Family homepage. Select **Product Library** from the drop-down list in the right hand navigation bar, and locate the documentation you need. To download product fixes, select **Product updates** from the drop-down list in the right hand navigation bar, and follow the instructions provided.

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:

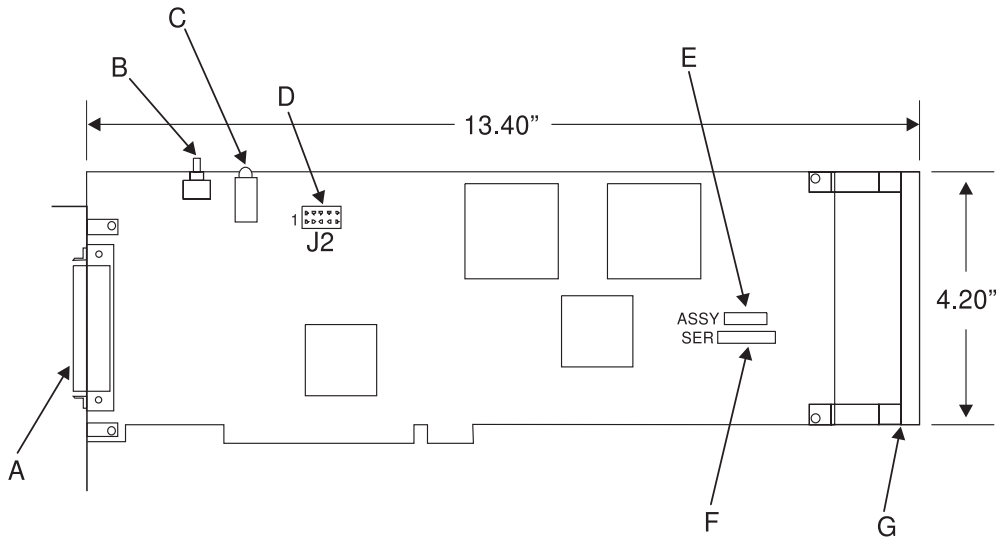
- “Preparing to install the IBM 4159 PCI card” on page 17 describes the steps to recreate the IBM 4159 diagnostics diskette if it has been misplaced.
- “Installing the IBM 4159 Model 001 S/390 Parallel Channel Emulator Card” on page 17 describes the procedure for installing the IBM 4159 that includes the following topics:
 - “Attaching the Bus/Tag Interface cable” on page 18
 - “Testing the card” on page 19
 - “Installing more than one IBM 4159 card” on page 21
 - “Testing the printer connection” on page 22

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.

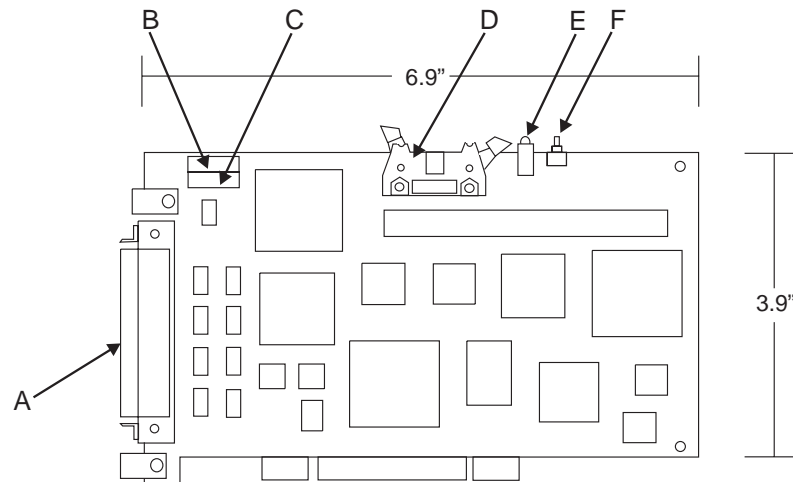
The IBM 4159 consists of a single full-length PCI board and a bus/tag interface cable. It contains all logic necessary to drive the bus/tag channel. The IBM 4159 card comes in two sizes: long and short. While these cards may appear to be different, they are functionally identical. The short version of 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 14 and Figure 2 on page 15 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

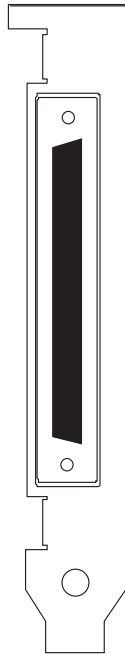


Figure 3. Front Panel with 80-Pin Connector

The IBM 4159 has the following limitations:

- Each IBM 4159 supports at most 8 printers. However, if you are using the card to attach high-speed printers (such as an IBM Infoprint 4000 or an IBM Infoprint 4100), you should use one card per printer.
- You should plan to install the IBM 4159 in a long PCI slot. As a result, the number of long PCI slots you have available in your Windows NT/Windows 2000 system determines how many IBM 4159 cards you can install, 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 9. (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 19.

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. Look at the base of the card, where it has been inserted into the slot. If you can see any of the gold pins on the card, it is not seated properly. Pull the card out and check the position of the retaining bracket on the card. You may need to adjust the bracket so the card fits properly. Insert it again, pushing firmly and making sure that the gold pins are not visible.
8. When the card is seated, replace the bracket screw to ensure proper grounding.
9. Check the base of the card again to make sure that none of the gold pins are visible. (Cards occasionally become unseated when you reattach the bracket screw.) If the card has become unseated, unscrew the bracket screw, reseal the card, and carefully reattach the bracket screw.
10. Replace the covers on the server/host PC.
11. Plug in the server/host PC.
12. 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.

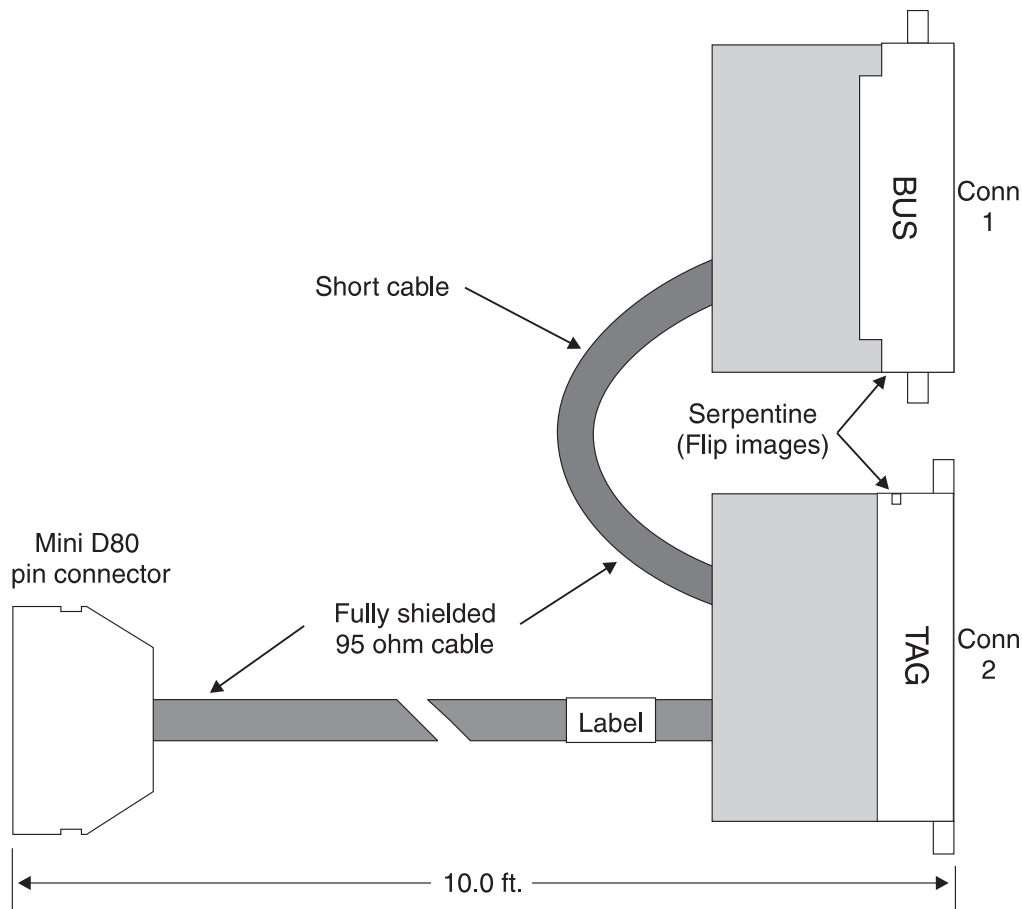


Figure 4. Bus/Tag Interface Cable Assembly

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 17.

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. If there are no errors, continue with step 5. If there are errors, the IBM 4159 card may be seated improperly. To check, do the following:
 - a. Power down the server/host PC.
 - b. Remove the cover from the PC.
 - c. Look at the base of the card. If you can see any of the gold pins, the card is not seated properly. Remove the card and reseal it so that you cannot see the pins. You may have to move the retaining bracket on the card or try it in a different slot to seat it properly.
 - d. Replace the cover on the PC.
 - e. Turn the PC back on and re-start the diagnostics test from step 3.
5. 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? _
```
6. 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.
7. If a red error message displays, write down the contents of the error message and contact IBM customer support.
8. After at least ten test cycles, press any key to stop the test. If no error messages display, the test was a success.
9. Press any key to return to the menu.
10. Type "0" and press "Enter" to return to DOS.
11. Remove the diagnostic diskette from the floppy drive.
12. Power down the server/host PC.

13. Remove the emulator loopback connectors from the Bus/Tag Interface cable by alternating between unscrewing and gently pulling the connectors apart by hand.
14. 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.
15. 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” 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 17.
2. Test each card as instructed in “Testing the card” on page 19.
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).
10. If none of the lights flash, do the following:
 - a. Power off your PC and printer.
 - b. Power on your PC and printer.

- c. When the printer gets back to the **Ready** state, issue the sense command from step 8 on page 21 again and watch for the LED to flash.

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 19, 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.

Only on Windows 2000 systems:

If you installed the card on a Windows 2000 system, the **Found New Hardware** wizard appears at this point. Follow these instructions to complete the wizard.

- a. On the first panel of the wizard, click **Next**.
- b. On the second panel, select **Other Devices** from the list and click **Next**.
- c. On the **Select a Driver** panel, click **Have Disk**.
- d. In the **Install from disk** dialog, click **Browse**.
- e. Navigate to <install_path>\bin, where <install_path> is the directory where you installed Infoprint Manager.
- f. In that directory, find the **ibm4159.inf** file and select it, then click **Open**.
- g. In the **Install from disk** dialog, click **OK**.
- h. On the **Select a Driver** panel, select the **S/390 Parallel Channel Emulator** and click **Next**.
- i. A dialog will appear to ask you if you want to update the driver. Click **Yes**.

- j. On the **Start Device Driver Installation** panel, click **Next**.
- k. On the **Completing the Found New Hardware Wizard** panel, click **Finish**.
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 21 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 Printer Drivers, Port Monitors, Windows Gateway Printers, and Passthrough Printers

Before you decide which type of Infoprint actual destination to create, you should first understand the following terms and concepts. Figure 5 on page 26 illustrates how these items can fit into your Infoprint Manager system.

Printer driver

Software that accepts the output of your applications and converts it into a data stream that the printer can understand. Most printers come with one or more drivers that you can install and use; the printer documentation provides more specific information about the capabilities of the drivers. The driver you use determines what data stream is sent to the printer. In Infoprint Manager, the driver may process the data before it is placed on the print spool.

Port monitor

Software that controls how the data stream that is generated by the printer driver gets to the printer. If your printer is local- or parallel-attached to your system, you use a local port monitor; if your printer is attached over TCP/IP, you may use a TCP/IP port monitor. Infoprint Manager includes two port monitors: the **Infoprint port monitor** that sends print data to the Infoprint Manager spool, and the **IBM TCP/IP Network Port Monitor**.

Port A Windows entity that represents a particular output device or target. The data stream that the driver creates is sent to the printer through a port. A port is always created with and controlled by a specific port monitor. Infoprint Manager creates ports that use the Infoprint port monitor when it needs them. You may have to create some ports yourself (such as a port that uses the IBM TCP/IP Network Port Monitor), but you should never have to create an Infoprint port.

Windows printer

The combination of a printer driver and a port. You can create a Windows printer using the Windows **Add printer** wizard. A Windows printer receives print data, sends it through the printer driver to create the data stream that you want to use, then sends the data stream to an output device (printer) or target through the port. Infoprint Manager sometimes creates Windows printers under the covers and names them **IPM-*<actual destination name>***. You will be able to see these printers in the Windows **Printers** window, but you should never open and modify them from there.

Windows shared printer

A Windows printer that is defined so that a remote Windows user can send print jobs to it. When a user on the network uses the Windows **Add printer** wizard to create a network printer on his or her desktop, the wizard provides a list of the Windows shared printers that are available. In Infoprint Manager, a Windows gateway printer is a type of Windows shared printers.

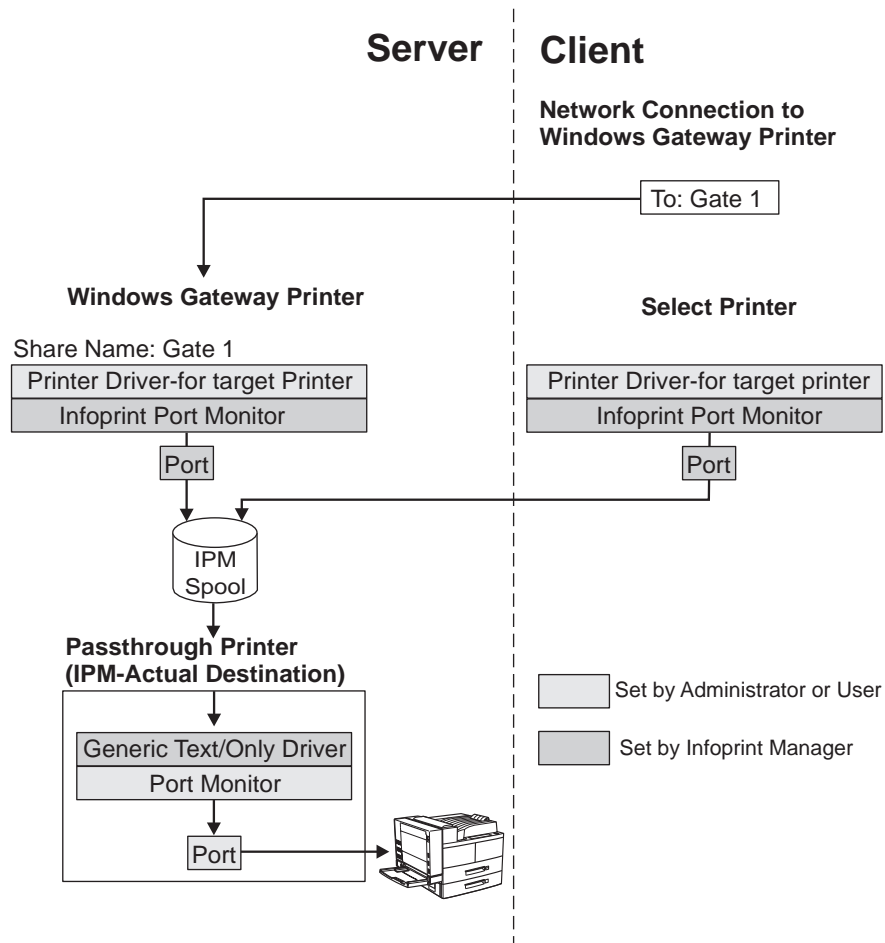


Figure 5. Infoprint Manager print data stream flow

Windows gateway printers

A Windows gateway printer is a Windows shared printer that you create on your Infoprint Manager system. Then, users can add that printer to their desktops and submit jobs to it. The gateway submits the jobs to the specified Infoprint destination to be printed.

Important: Infoprint Manager manages this Windows shared printer for you; you should never modify the port monitor or port configuration of this printer by opening it from the **Start**—>**Settings**—>**Printers** window.

You create a Windows gateway printer on the Infoprint Manager server system using the Management Console. Select **Edit** —>**New** —> **Windows Gateway Printer** to open the **Create Gateway Printer** dialog. In the dialog:

- Specify a *share name* for the Windows gateway printer. The share name is the name that users will see in the **Add Printer** wizard when they look for the printer.
- Select the Infoprint destination that the gateway will send jobs to.

Note: You must create this destination before you create the Windows gateway printer. Refer to Chapter 5, “Understanding Destination Support Systems

(DSS)” on page 29 and Chapter 7, “Creating actual destinations” on page 43 for more information about creating destinations.

- Select the printer driver that generates a datastream that corresponds to the destination or destinations that the jobs may be printed on.

Note: The PCL drivers that come with Infoprint 1000 family printers (the Infoprint 1120, Infoprint 1125, Infoprint 1130, Infoprint 1140, and Infoprint 1145) generate PCL6. You cannot send PCL6 data to PSF destinations in Infoprint Manager because the automatic data stream transforms in Infoprint Manager cannot process PCL6 yet. If you want to submit jobs to an Infoprint 1000 family printer through a Windows gateway printer, there are several other options to choose from.

- Send your print jobs to an Infoprint Manager Passthrough printer instead of a PSF printer.

Passthrough printers don’t use the data stream transforms, so you can send PCL6 to them.

- Send your print jobs to an Infoprint Manager PSF Other printer with the **document-formats-ripped-at-destination** attribute set to **pcl**.

This attribute allows the PSF Other printer to act like a Passthrough printer, so it will send all PCL jobs to the printer without transforming them. Make sure that you don’t set any attributes that would make Infoprint Manager try to process the job itself.

- Use a PCL5 driver to send jobs to a PSF destination.

You can use any PCL5 driver; it doesn’t have to correspond directly to your printer. This option is the only way to drive your Infoprint 1000 family printer in IPDS mode through Infoprint Manager; you cannot generate IPDS from the output of the PCL6 driver.

You cannot choose a port monitor; in this case, Infoprint Manager associates the selected driver with the Infoprint port monitor to create a Windows printer.

Passthrough printers

When you want to create a Passthrough printer, you first use the Management Console to create a port that the Passthrough printer will use. When you create this port, you must select a port monitor that supports the attachment type for your printer. For example, if your printer is local- or parallel-attached, choose the Local Port; if your printer is TCP/IP attached, use a TCP/IP port monitor designed for that printer.

Note: For most IBM TCP/IP attached printers, you can use the IBM TCP/IP Network Port Monitor. However, if you want to send PDF jobs to a printer that accepts the PDF data stream, you will have to use a different port monitor.

Then you use the Infoprint Manager Administration GUI to create the Passthrough printer, specifying the port you just created.

To see a list of the ports that are available on your system, complete the following:

1. Click the Windows **Start** button and select **Settings** —> **Printers**.
2. In the **Printers** window, select **File** —> **Server Properties**, and in the **Print Server Properties** window, click the **Ports** tab.

Infoprint Manager automatically creates a Windows printer (named **IPM-<actual destination name>**) that uses the port you named, along with the **Generic / Text Only** printer driver. The **Generic / Text Only** driver is considered a passthrough driver because it does not change the data stream it receives. If you send PostScript to it, it sends the same PostScript to the printer.

Important: Infoprint Manager manages this Windows printer for you; you should **never** modify it directly by opening it from the **Start—>Settings—>Printers** window.

Chapter 5. 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. You can use the PSF DSS to submit print jobs to output devices that accept the Intelligent Printer Data Stream (IPDS) or the PCL data stream. The PSF DSS accepts print jobs in a variety of data streams and transforms them into IPDS™ or PCL before sending them to the output device. The PSF DSS is the most flexible DSS. It provides a single point of control and tracking for print jobs.

Note: The PCL drivers that come with Infoprint 1000 family printers (the Infoprint 1120, Infoprint 1125, Infoprint 1130, Infoprint 1140, and Infoprint 1145) generate PCL6. You cannot send PCL6 data to PSF destinations in Infoprint Manager because the automatic data stream transforms in Infoprint Manager cannot process PCL6 yet. There are several options for printing to Infoprint 1000 family printers.

- Send your print jobs to an Infoprint Manager Passthrough printer instead of a PSF printer.

Passthrough printers don't use the data stream transforms, so you can send PCL6 to them.

- Send your print jobs to an Infoprint Manager PSF Other printer, and set the **document-formats-ripped-at-destination** attribute to **pcl**.

This attribute allows the PSF Other printer to act like a Passthrough printer, so it will send all PCL jobs to the printer without transforming them. Make sure that you don't set any attributes that would make Infoprint Manager try to process the job itself.

- Use a PCL5 driver to send jobs to a PSF destination.

You can use any PCL5 driver; it doesn't have to correspond directly to your printer. This option is the only way to drive your Infoprint 1000 family printer in IPDS mode through Infoprint Manager; you cannot generate IPDS from the output of the PCL6 driver.

The way Infoprint Manager 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 32.)

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 (such as PostScript or PCL) printers using standard Windows NT/Windows 2000 ports and port monitors.

Before you create an Infoprint Manager Passthrough printer (also known as a 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 51 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 printers that are Internet Print Protocol (IPP) –enabled. 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 33 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 PSF Direct, DPF, 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, DPF, 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, PCL, or any non-IPDS datastream			PostScript, PCL (versions 4, 5, and 5c only), or any non-IPDS datastream
and the data stream that you send to this printer is:	the same that the application sends to Infoprint Manager			PCL, 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 33.

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

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 only 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	PCL or PPDS ¹
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 using MVS Download, DPF, or from a combination of PC-based applications and host systems

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

Table 5. Selecting a DSS for printing using MVS Download, DPF, or from a combination of 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 or DPF) ¹		PCL4, PCL5, PCL5c only	PS only
and the data stream that you send to your printer is:	IPDS	PCL or PPDS ²	PCL	PS

Table 5. Selecting a DSS for printing using MVS Download, DPF, or from a combination of PC-based applications and host systems (continued)

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 30	One of the destination types listed in Table 3 on page 30.
Notes:				
<ol style="list-style-type: none"> 1. PSF Direct and DPF can only submit jobs to PSF printers. MVS Download can submit jobs to any of the printer types listed. 2. 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. However, if you are using the card to attach high-speed printers (such as an IBM Infoprint 4000 or an IBM Infoprint 4100), you should use one card per printer.
- You should plan to install the IBM 4159 in a long PCI slot. As a result, the number of long PCI slots you have available in your Windows NT/Windows 2000 system determines how many IBM 4159 cards you can install, 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	PCL or PPDS	PCL or 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 6. 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 online help systems in the Infoprint Manager Administration and Operations GUIs and the Infoprint Manager Management Console. The Infoprint Manager Administration GUI and the Infoprint Manager Operations GUI help systems also include tutorials to help you become acquainted with the GUIs and the tasks you may need to perform. To access the tutorials, launch one of the Infoprint Manager GUIs and select **Help** ->**Tutorials**.

For information on installing and starting the Infoprint Manager Administration and Operations GUIs, see Chapter 12, "Installing Infoprint Manager GUI software" on page 79.

Tasks you perform using the Infoprint Manager Administration GUI

Printer tasks:

- Create or copy a printer (except Windows Gateway or PSF Direct only 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 or Infoprint Color printer
- Change media for a PSF, BSD, Infoprint Color, or Passthrough printer
- Change the AFP resource information
- Change AFP color options
- Change job batch
- Change job routing
- Change tuning
- 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
- Change the job classes that the printer can accept
- Change the job forms that the printer can use

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 priority of a job
- 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
- Select the pages of a job that you want to print
- Change the AFP resource information
- Change the AFP color options
- Change the job class
- Change the forms used for the job

Queue tasks:

- Create a queue

- Delete a queue
- Filter on queues
- Monitor queues
- Pause and resume a queue
- Keep failed jobs

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
- Customize the appearance of the GUI
- Add and remove menu items and toolbar buttons
- Sort details views and tree views
- Change primary Infoprint server connection
- Filter your view (destinations, queues, or servers)

- Access Help topics and tutorials

Installing or starting the Infoprint Manager Administration GUI

For information on installing and starting the Infoprint Manager Administration GUI, see Chapter 12, “Installing Infoprint Manager GUI software” on page 79.

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 or Infoprint Color printer
- Change media for a PSF, BSD, Infoprint Color, or Passthrough printer
- Change job routing
- Display actual destinations
- Monitor printers
- Change the job classes that the printer can accept
- Change the job forms that the printer can use

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 priority of a job
- 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

- Select the pages of a job that you want to print
- Change the AFP resource information
- Change the AFP color options
- Change the job class
- Change the forms used for the job

Queue tasks:

- Filter on queues
- Monitor queues
- Pause and resume a queue

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
- Customize the appearance of the GUI
- Add and remove menu items and toolbar buttons
- Sort details views and tree views
- Change primary Infoprint server connection
- Filter your view (destinations, queues, or servers)
- Access Help topics and tutorials

Installing and starting the Infoprint Manager Operations GUI

For information on installing and starting the Infoprint Manager Operations GUI, see Chapter 12, “Installing Infoprint Manager GUI software” on page 79.

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
- Change the hostname or IP address that Infoprint Manager uses after you have changed it on your system

DPF tasks:

- Create, view, modify, or delete a DPF host receiver
- Start, stop, pause, or resume a DPF host receiver
- Cancel a DPF print job that's currently downloading
- Obtain printer characteristics
- Find a specific DPF resource in the DPF Resource database
- Delete a DPF resource

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
- Manage DPF host receiver tracing
- Show DPF host receiver drive information
- Recreate DPF resources database

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
- Upgrade from a trial version to a licensed version of Infoprint Manager
- Enable/disable Infoprint Manager LPD

Starting the Infoprint Manager Management Console

To start the Infoprint Manager Management Console, click the Windows **Start** button and select **Programs—>IBM Infoprint Manager—>Management Console**.

Chapter 7. Creating actual destinations

For help in selecting the type of actual destination to create, see Chapter 5, “Understanding Destination Support Systems (DSS)” on page 29.

The Infoprint Manager Operations and Infoprint Manager Administration Graphical User Interfaces (GUIs) are applications that let you easily manage your Infoprint objects. Both GUIs are installed with the Infoprint Manager server and can also be installed on remote systems that use the Windows NT, Windows 2000, or Windows 95/98 operating systems.

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 6, “Using the Infoprint interfaces” on page 35 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” on page 45
- “PSF Channel printer” on page 47
- “PSF Command printer” on page 48
- “PSF Other-Driver printer” on page 50
- “Passthrough printer” on page 51
- “BSD printer” on page 53
- “IPP printer” on page 55

When you use the wizard to create any of the PSF printers (PSF TCP/IP, PSF Channel, PSF Command, or PSF Other), the wizard sets default values for some of the attributes of the printer. The attributes and their associated default values are listed below.

media-supported

Only set when the printer is not an SNMP printer. Default values vary depending on the printer model you select.

Table 7.

Printer	Values
Infoprint 70	<ul style="list-style-type: none"> • letter (8.5 x 11 inch) • legal (8.5 x 14 inch) • ledger (11 x 17 inch) • executive (7.25 x 10.5 inch) • folio (8.5 x 13 inch) • statement (5.5 x 8.5 inch) • A3 (297 x 419 mm) • A4 (210 x 297 mm) • A5 (148 x 210 mm) • jis-b4-white (257 x 364 mm) • jis-b5-white (182 x 257 mm) • 8.5 x 12.4 inch • 9 x 11 inch • 12 x 18 inch
Infoprint 1120, Infoprint 1125, Infoprint 1130, Infoprint 1140	<ul style="list-style-type: none"> • letter (8.5 x 11 inch) • legal (8.5 x 14 inch) • executive (7.25 x 10.5 inch) • folio (8.5 x 13 inch) • statement (5.5 x 8.5 inch) • A4 (210 x 297 mm) • A5 (148 x 210 mm) • jis-b5-white (182 x 257 mm) • 7.75 inch envelope (98 x 191 mm) • 9 inch envelope (98 x 225 mm) • Commercial #10 envelope (104.8 x 241.3 mm) • C5 envelope (169 x 229 mm) • B5 envelope (176 x 250 mm) • DL envelope (110 x 220 mm)
Infoprint 1145	<ul style="list-style-type: none"> • letter (8.5 x 11 inch) • legal (8.5 x 14 inch) • executive (7.25 x 10.5 inch) • folio (8.5 x 13 inch) • statement (5.5 x 8.5 inch) • ledger/tabloid (11 x 17 inch) • A3 (297 x 419 mm) • A4 (210 x 297 mm) • A5 (148 x 210 mm) • jis-b5-white (182 x 257 mm) • jis-b4-white (257 x 364 mm) • Universal

Table 7. (continued)

Printer	Values
Infoprint 2000 AFP	<ul style="list-style-type: none"> • letter (8.5 x 11 inch) • legal (8.5 x 14 inch) • ledger/tabloid (11 x 17 inch) • manual (9 x 12 inch) • A3 (297 x 419 mm) • A4 (210 x 297 mm) • B4 • RA3 • RA4 • 8 x 10 inch • 8 x 10.5 inch • 8.5 x 10 inch • 12 x 18 inch • 14 x 17 inch • 14 x 18 inch • letter-tab (9 x 11 inch) • a4-tab (8.86 x 11.69 inch) • legal-tab (9 x 14 inch)
All other printer models	<ul style="list-style-type: none"> • letter (8.5 x 11 inch) • legal (8.5 x 14 inch) • tabloid (11 x 17 inch) • ledger (11 x 17 inch) • A3 (297 x 419 mm) • A4 (8.27 x 11.69 inch) • jis-b4-white (257 x 364 mm) • jis-b5-white (182 x 257 mm)

sides-supported

Only set when the printer is not an SNMP printer. Set to **1** and **2**

plexes-supported

Only set when the printer is not an SNMP printer. Set to **simplex** and **tumble**.

printer-resolutions-supported

Set to **240**, **300**, **480**, and **600**.

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 8. PSF TCP/IP Printer Worksheet

Wizard Prompt	Description	Value
Name	<p>The name for the actual destination object (8 character limit).</p> <p>Note: This name is case-sensitive.</p>	

Table 8. PSF TCP/IP Printer 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 system where the server is installed. Note: This name is case-sensitive.	
Model	Select the printer model from the pull-down list in the Infoprint Manager Administration GUI. If the printer you are working with is not in the pull-down list, enter the name as it appears on the printer.	
TCP/IP address	The dotted-decimal IP address used to access this printer.	
TCP/IP port	The port used by the printer for communication. The Infoprint 1000 family of printers uses port 9100. Most other IBM printers use port 5001.	
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**.)

Note: If **TCP/IP** is not shown in the **Printer** -> **Create** -> **PSF** menu, use **Printer** -> **Add/Remove Menu Items** to add it.

Referring to the worksheet above, provide the information as prompted by the wizard. For assistance, refer to the Infoprint Manager Administration GUI online help.

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 9. 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 system where the server is installed. Note: This name is case-sensitive.	
Model	Select the printer model from the pull-down list in the Infoprint Manager Administration GUI. If the printer you are working with is not in the pull-down list, enter the name as it appears on the printer.	
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 21 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 9. 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.**)

Note: The **Channel** is not shown in the **Printer -> Create -> PSF** menu by default. To add it, select **Printer -> Add/Remove Menu Items.**

Referring to the worksheet above, provide the information as prompted by the wizard. For assistance, refer to the Infoprint Manager Administration GUI online help.

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

PSF Command printer

Use the command attachment type for a PCL printer that receives data streams transformed by PSF from a print command through a Windows port.

Before you create a PSF Command printer, you must create Windows port that Infoprint Manager will use to communicate with the printer. Use the Infoprint Manager Management Console to create a Windows port as follows:

1. Click the Windows **Start** button and select **Programs—>IBM Infoprint Manager—>Management Console.**
2. Select **Edit—>New—>Windows Port.**
3. 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 an IBM network-attached workgroup printer, such as the Infoprint 20, as a non-IPDS printer, you should use the IBM TCP/IP Network Port Monitor.

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

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

Table 10. 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.	

Table 10. PSF Command Printer 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 system where the server is installed. Note: This name is case-sensitive.	
Model	Select the printer model from the pull-down list in the Infoprint Manager Administration GUI. If the printer you are working with is not in the pull-down list, enter the name as it appears on the printer.	
SNMP TCP/IP address	The dotted-decimal IP address used to access this printer. This value is used only for SNMP printers.	
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:
<p>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.</p>		

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**.)

Note: If the **Command** is not shown in the **Printer -> Create -> PSF** menu, use **Printer -> Add/Remove Menu Items** to add it.

Referring to the worksheet above, provide the information as prompted by the wizard. For assistance, refer to the Infoprint Manager Administration GUI online help.

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 11. 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 system where the server is installed. Note: This name is case-sensitive.	
Model	Select the printer model from the pull-down list in the Infoprint Manager Administration GUI. If the printer you are working with is not in the pull-down list, enter the name as it appears on the printer.	
SNMP TCP/IP address	The dotted-decimal IP address used to access this printer. This value is used only for SNMP printers.	
Device or Windows port name	The Windows port associated with this destination.	
Printer command	Only used with Infoprint Manager for AIX.	Leave this field blank.
Data stream	The data stream expected by the printing device (for example, PCL or PPDS).	

Table 11. PSF Other-Driver Printer Worksheet (continued)

Wizard Prompt	Description	Value
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**.)

Note: If **Other** is not shown in the **Printer -> Create -> PSF** menu, use **Printer -> Add/Remove Menu Items** to add it.

Referring to the worksheet above, provide the information as prompted by the wizard. For assistance, refer to the Infoprint Manager Administration GUI online help.

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, for example, to send PostScript data to a PostScript printer or to send PCL data to a PCL printer without transforming it.

Note: By default, the Passthrough DSS only supports the following data streams:

- ASCII
- iso-6429
- PCL
- PostScript
- PPDS
- simple-text (text)

To create a Passthrough actual destination, complete the following four steps.

1. Install the Windows Generic/Text Only printer driver.
 - a. Use the Windows **Add Printer Wizard** to create a local printer.
 - b. When you have to choose a port, select **FILE**.
 - c. When you have to choose the manufacturer and model of the printer, select **Generic** from the list of manufacturers and **Generic/Text Only** from the list of models.

- d. Finish the wizard, selecting not to share the printer and not to print a test page.
 - e. When you are finished, you can delete the printer; the driver will still be installed.
2. Attach the printer device as specified by its documentation.
 3. Define a Windows port.
If 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 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. Select **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**.
 - If you are using an Infoprint 1000 family printer (Infoprint 1120, 1125, 1130, 1140, or 1145), use the Lexmark TCP/IP Network Port Monitor. If the Lexmark TCP/IP Network Port Monitor doesn't appear on the list, you must install it from the CD-ROM that came with your printer first.
 - If you are using another IBM network-attached workgroup printer, such as the Infoprint 20, use the IBM TCP/IP Network Port Monitor.

Note: The port monitor that you select determines the next dialog to appear.
 - d. Fill in the information that the dialog requires and click **OK**.
 4. Create a Passthrough printer by completing the worksheet Table 12 and using the **Create Printer Wizard** in the Infoprint Manager Administration GUI. (On the menu bar, click **Printer—>Create—>Passthrough**.)

Note: If **Passthrough** is not shown in the **Printer -> Create** menu, use **Printer -> Add/Remove Menu Items** to add it.

Referring to the worksheet, provide the information as prompted by the wizard. For assistance, refer to the Infoprint Manager Administration GUI online help.

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 11, "Printing a test job" on page 75.

Table 12. 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 12. 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 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. To determine what ports exist on your server, open the Start menu and click Settings —> Printers . On the Printers dialog, click on the File menu and click on Server Properties . The Print Server Properties dialog box appears where you can click on the Ports to display of the list of available ports.	
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:

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 13. 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 system where the server is installed. Note: This name is case-sensitive.	
SNMP 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 lpr 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**.)

Note: If **BSD** is not shown in the **Printer -> Create** menu, use **Printer -> Add/Remove Menu Items** to add it.

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: 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 14. IPP Destination Worksheet

Wizard Prompt	Description	Value
Name	The name for the actual destination object. This is the printer URL, for example, np17.prtrm4.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 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.	
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**.)

Note: If **IPP** is not shown in the **Printer -> Create** menu, use **Printer -> Add/Remove Menu Items** to add it.

Referring to the worksheet above, provide the information as prompted by the wizard. For assistance, refer to the Infoprint Manager Administration GUI online help.

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

Creating a PSF Direct only 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 41. 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”
- “PSF Direct Only Non-IPDS Printer” on page 57

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 15. 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.	
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. The IBM 1000 family of printers uses port 9100. Most other IBM printers use port 5001.	
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 16. 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 21 to determine the correct value. Otherwise, the default value of "1" is appropriate.	
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 17. 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, PCL5, PCL5C, or PPDS).	

Table 17. PSF Direct Only Non-IPDS Printer Worksheet (continued)

Management Console Prompt	Description	Value
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.

Chapter 8. Preparing Infoprint Manager to connect to your host system

Infoprint Manager provides various methods to configure printing from host systems. The most powerful methods are: PSF Direct, Distributed Print Function (DPF), and MVS Download. If you have not decided which method is best for your operation, refer to the *IBM Infoprint Manager for Windows NT and Windows 2000: Planning Guide* for descriptions and comparisons of the methods. You need to know which method you plan to use before you can create the connection between Infoprint Manager and the host.

All three of the Infoprint Manager host printing options use *host receivers* to link the server to the host. There are three types of host receivers, one for each host printing method. Each type of receiver performs different functions.

- **PSF Direct Host Receiver**

Accepts print jobs from a PSF on your host system and sends them to a PSF Direct destination without putting them into a queue.

- **DPF Host Receiver**

Downloads print jobs and their resources from a PSF on your host system and submits them to an Infoprint Manager PSF printer to be printed. To the host PSF, the DPF host receiver looks like a TCP/IP-attached IPDS printer, so you can submit jobs to it as you would to that type of printer.

If your host operating system is MVS or VSE, the DPF host receiver stores all of the DPF Resources it receives in the DPF Resources database. If you have the **Save resources** function of the receiver turned on, all resources that were marked **public** on the host are shown in the DPF Resources view of the Management Console. Additional information about the **Save resources** function is available in the online help in the Management Console and in the *Infoprint Manager for Windows NT and Windows 2000: Planning Guide*

- **MVS Download Receiver**

Receives print files and JCL parameters from the MVS host. The receiver applies a Destination Control File (DCF) to the JCL parameters and generates a corresponding list of Infoprint parameters. The list of Infoprint parameters is then passed to the MVS Download Exit Program (or *Exit*) so Infoprint Manager can process the job.

The Exit is responsible for performing some action on the received file. Two sample Exits are provided with Infoprint Manager: one written in Microsoft Visual C++ Version 6.0 and one written in Microsoft Visual Basic Version 6.0. Both samples perform the same action: submit the file to Infoprint Manager using **pdpr** and log any errors. The sample exits also stop the MVS Download receiver if the **pdpr** fails.

Note: MVS Download Receivers don't download AFP resources along with print jobs; AFP resources must already be available to Infoprint Manager.

After you have created your actual destinations, use the appropriate procedure below to create the right type of host receivers on your Infoprint Manager server.

- "PSF Direct Host Receiver" on page 60
- "DPF host receiver" on page 61
- "MVS Download Receiver" on page 65

Troubleshooting host receivers

All host receivers write their error messages to the server message log. If you start to have trouble with host printing, check the server error log for host receiver problems first. To see the server message log, open the Management Console and click the **Server Log** item in the left pane.

PSF Direct Host Receiver

Before you create a PSF Direct host receiver

When you create a PSF Direct host receiver, you have to specify which Infoprint Manager actual destination the host receiver will send jobs to. If you have not already created the actual destinations you need, refer to Chapter 7, “Creating actual destinations” on page 43.

Notes:

1. You must use the PSF DSS with PSF Direct.
2. If you currently use PSF Direct in PSF for OS/2, refer to the *IBM Infoprint Manager for Windows NT and Windows 2000: Planning Guide* for instructions on collecting the information you need from your OS/2 system. You can use the printer information that you collect to help create your Infoprint Manager actual destinations.

Creating a PSF Direct host receiver

1. Complete the following configuration worksheet.

Note: If you currently use PSF Direct in PSF for OS/2, refer to the *IBM Infoprint Manager for Windows NT and Windows 2000: Planning Guide* for instructions on collecting the information you need from your OS/2 system.

Table 18. 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.	
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.	

2. Open the Infoprint Manager Management Console and select **Edit -> New -> PSF Direct Host Receiver**.
Refer to the Management Console help system if you need further information.
3. Use the information from the worksheet to complete the dialog and click **OK**.
4. To finish setting up your PSF Direct system, refer to the appropriate PSF Direct configuration guide for information about configuring your host system and configuring IBM SecureWay Communications Server for Windows NT. The following configuration guides are available on your Publications CD-ROM and on the IBM Printing Systems website:
 - *Configuring PSF Direct for an iSeries System*
 - *Configuring PSF Direct for the 3174 Communications Controller*
 - *Configuring PSF Direct for the 3172 Communications Controller*
 - *Configuring PSF Direct for the 37xx Communications Controller*

DPF host receiver

Before you create a DPF host receiver

When you create a DPF host receiver, you have to specify which Infoprint Manager actual destination the host receiver will send jobs to. If you have not already created the actual destinations you need, refer to Chapter 7, “Creating actual destinations” on page 43.

Notes:

1. You must use the PSF DSS with DPF.
2. If you have interoperating Infoprint Manager servers, the actual destination that the host receiver submits jobs to and the logical destination that the actual destination is associated with must reside on the same server.
3. If you currently use DPF in PSF for OS/2, refer to the *IBM Infoprint Manager for Windows NT and Windows 2000: Planning Guide* for instructions on collecting the information you need from your OS/2 system. You can use the printer and spool information that you collect to configure your Infoprint Manager actual destination.

DPF working directories

Each DPF host receiver must have two **working directories** associated with it; one for jobs and one for resources. These directories can only be used by one host receiver and should be reserved exclusively for that host receiver; they should not be used by any other programs or for any other purpose.

When you create a DPF host receiver, Infoprint Manager will fill in default directory paths for the working directories. If you accept those directories, Infoprint Manager will create them for you. However, if you want to store your resources somewhere else (for example, on a different hard drive or a different partition), you must create the directory yourself, before you create the host receiver.

If you create your own directories, it is recommended that you create one directory named after the receiver, then two subdirectories inside it, one named **Jobs** and one named **Resources**. For example, if you plan to name your host receiver **hr_ip4000**, you would create a directory named **hr_ip4000**, then create the **Jobs** and **Resources** subdirectories under it. When you create your host receiver, you would type E:/hr_ip4000/Jobs for the **Jobs directory** and E:/ hr_ip4000/Resources for the **Resources directory**.

Creating a DPF host receiver

1. Complete the following configuration worksheets. Only the **PSF actual destination** and **Port number** values are required to create a receiver; if you're not sure what to fill in for the rest of the items, you can accept the defaults and change the values in the receiver later.

Note: If you currently use DPF in PSF for OS/2, refer to the *IBM Infoprint Manager for Windows NT and Windows 2000: Planning Guide* for instructions on collecting the information you need from your OS/2 system.

Table 19. DPF Host Receiver Worksheet

Management Console Prompt	Description	Value
Logical unit alias name	The local alias of the name used to start an SNA conversation with this host receiver. Because DPF connects to Infoprint Manager over TCP/IP instead of SNA, you will not use the LU alias, however, knowing it will help you figure out the TCP/IP connection.	
PSF actual destination	The name of the actual destination object that this receiver will send jobs to. Note: This name is case-sensitive.	
Port number	The port that the host receiver will use to communicate with the host system.	
Description	Text to describe this receiver (optional).	
Submission priority	The relative importance of jobs submitted by this receiver. 1 is the highest priority; 100 is the lowest priority.	Default: 50
Inactivity limit	Number of seconds to wait for jobs from a connected host before disconnecting. When the inactivity timer runs out, the receiver drops the connection with the host system. If the timer is set to 9999, it will never run out.	Default: 9999

Table 19. DPF Host Receiver Worksheet (continued)

Management Console Prompt	Description	Value
Save resources	If Save resources is selected, the DPF host receiver acknowledges the public/private settings on the DPF resources that are downloaded with print jobs. Resources that were marked public on the host are stored in the DPF Resources Database for reuse later. Resources that were marked private cannot be reused. If Save resources is not selected, all DPF resources that are downloaded are considered private.	__ yes __ no
Obtain printer characteristics at start up	If selected, the receiver checks the printer settings every time the receiver connects to a host PSF and communicates any changes to the host system.	__ yes __ no
Suppress start sheets	Select to turn off the start sheets that Infoprint Manager generates.	__ yes __ no
Suppress end sheets	Select to turn off the trailer sheets that Infoprint Manager generates.	__ yes __ no
Suppress separator sheets	Select to turn off the separator sheets that Infoprint Manager generates.	__ yes __ no
Jobs directory	The directory that the host receiver stores print jobs in until they are printed. Refer to "DPF working directories" on page 61 for more information.	
Resources directory	The directory that the host receiver stores job resources in. Refer to "DPF working directories" on page 61 for more information.	

Table 20. DPF Host Receiver Class Set Up Worksheet

Receiver				
Class	Copies	Start page	Disposition	Retention Period
			<ul style="list-style-type: none"> __ • Print __ • Retain __ • Print then Retain 	<ul style="list-style-type: none"> • __ Forever • __ Days • __ Hours

Table 20. DPF Host Receiver Class Set Up Worksheet (continued)

			<ul style="list-style-type: none"> __ • Print __ • Retain __ • Print then Retain 	<ul style="list-style-type: none"> • __ Forever • __ Days • __ Hours
			<ul style="list-style-type: none"> __ • Print __ • Retain __ • Print then Retain 	<ul style="list-style-type: none"> • __ Forever • __ Days • __ Hours
			<ul style="list-style-type: none"> __ • Print __ • Retain __ • Print then Retain 	<ul style="list-style-type: none"> • __ Forever • __ Days • __ Hours
			<ul style="list-style-type: none"> __ • Print __ • Retain __ • Print then Retain 	<ul style="list-style-type: none"> • __ Forever • __ Days • __ Hours

2. Open the Infoprint Manager Management Console and select **Edit -> New -> DPF Host Receiver**.
3. Use the information from the worksheet to complete the dialog. Make sure you click **Class Set Up** to configure your receiver classes with the information from Table 20 on page 63. Click **OK** when you are finished.
Refer to the Management Console help system if you need further information.

Important: The first time you try to start this receiver and connect to your host system, make sure that the printer that it will submit jobs to is powered **ON** and is available.

4. Refer to “Settings on your host system” to create a printer that will submit jobs to this host receiver from your host system.

Settings on your host system

To your host system, the DPF host receiver looks like a PSF TCP/IP printer. Use the appropriate guidelines below to define a TCP/IP printer in your host PSF. Before you begin, make sure you know:

- The IP address of the system that your Infoprint Manager server is installed on.
- The port number that you assigned to the DPF host receiver when you created it.

Keep in mind that various PSF and TCP/IP settings will affect the performance of your printing system. Refer to the documentation for your host PSF to learn more about the parameters and settings that are available.

PSF for OS/390

Refer to *Print Services Facility for OS/390: Customization (S544-5622)* for information and instructions about defining a TCP/IP printer. When you have to enter the IP address of the printer, enter the IP address of your Infoprint Manager server instead. When you define the printer, the port defaults to 5001; if your host receiver uses port 5001, you will not have to change it on your host system.

PSF/VM

Before you can create a TCP/IP printer on your PSF/VM system, you must apply APAR PQ39895 (PTF UQ45995). This APAR adds TCP/IP support to the Group 4 PDM.

Once you have applied the APAR, define a Group 4 printer, using the IP address of your Infoprint Manager server for the **IPADDR** keyword value and the port number of the DPF host receiver for the **PORTNO** keyword value.

Additional information about TCP/IP support and defining a Group 4 printer is available on the IBM Printing Systems website at <http://www.ibm.com/printers>. From the IBM Printing Systems home page, select **Support**, then **Software support**, then **Print Services Facility for VM**, then **TCP/IP Support**.

PSF for VSE

Before you can create a TCP/IP printer on your PSF for VSE system, you must apply APAR DY45247. This APAR adds TCP/IP support to PSF for VSE.

After you have installed the APAR, edit the PSF Startup job so that you use the IP address of your Infoprint Manager server for the **IPADDR** parameter and the port number of the DPF host receiver for the **PORTNO** parameter. If your DPF host receiver uses port 5001 (the default port in PSF for VSE), you don't have to specify a value for the **PORTNO** parameter.

Additional information about TCP/IP support for PSF for VSE is available on the IBM Printing Systems website at <http://www.ibm.com/printers>. From the IBM Printing Systems home page, select **Support**, then **Software support**, then **Print Services Facility for VSE**, then **TCP/IP Support**.

PSF/400

Use the CRTDEVPRT (Create Device Description (Printer)) command to define a TCP/IP printer on your iSeries system. Use the IP address of your Infoprint Manager server for the **RMTLOCNAME** value and the port that your DPF host receiver uses for the **PORT** value. For example, the following command defines a printer that can send IPDS data to a DPF host receiver using the TCP/IP protocol, assuming that the DPF host receiver uses port 5005, and the IP address of the Infoprint Manager server is 9.34.746.882.

```
CRTDEVPRT DEVD(IPMDPF) DEVCLS(*LAN) TYPE(*IPDS) MODEL(0) LANATTACH(*IP)
AFP(*YES) PORT(5005) FONT(11) RMTLOCNAME('9.34.746.882') TEXT('Sample
Infoprint Manager DPF printer writer')
```

For additional information about the CRTDEVPRT command and defining printers in OS/400, refer to the iSeries Information Center (<http://publib.boulder.ibm.com/html/as400/infocenter.html>) and the *Communications Configuration* guide (SC41-5401).

MVS Download Receiver

Before you create a host receiver

When you create an MVS Download receiver, you have to specify which Infoprint Manager actual destination the host receiver will send jobs to. If you have not already created the actual destinations you need, refer to Chapter 7, "Creating actual destinations" on page 43.

Creating an MVS Download receiver

1. Complete the following configuration worksheet.

Note: Once you create an MVS Download Receiver, you cannot change any of its attributes. If you are not certain which options to select or which DCF

and Exit to use, skip to step 4 on page 67. Create your MVS Download Receivers after you have reviewed the rest of the MVS Download configuration information.

Table 21. MVS Download Host Receiver Worksheet

Management Console Prompt	Description	Value
Port Number	The port assigned for communication with z/OS 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 z/OS or MVS job parameters and printer control file settings. In sample destination control file supplied with Infoprint Manager, the value of MVS keyword DEST overrides whatever value you specify here. 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.	
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 mvdsdsubm.exe is used.	
Retain command files	Indicate whether to save the command files for jobs that do not print correctly.	<input type="checkbox"/> yes <input type="checkbox"/> 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.	<input type="checkbox"/> yes <input type="checkbox"/> no

2. Open the Infoprint Manager Management Console and select **Edit -> New -> MVS Download Receiver**.
3. Use the information from the worksheet to complete the dialog and click **OK**. Refer to the Management Console help system if you need further information.

4. To complete your MVS Download configuration, refer to the Administrator procedure **Setting up to use MVS Download**, available on your Publications CD-ROM and on the IBM Printing Systems website.

Chapter 9. Preparing Infoprint Manager for various job submission methods

Users can submit print jobs to Infoprint Manager in a variety of ways. The most common ways are described below, along with any server configuration that they require. Once the server configuration is complete, you can find instructions for setting up print submission on client systems in Chapter 14, “Preparing client systems for various job submission methods” on page 87.

Infoprint Select

Configuring your Infoprint Manager server to work with Infoprint Select

In order for Infoprint Select to submit print jobs to Infoprint Manager properly, you must configure the appropriate Infoprint Manager logical destinations to accept jobs from Infoprint Select. Use the Infoprint Manager Administration GUI as described in the following procedure to configure the logical destinations correctly. If you want to use the command line instead of the GUI, use the **pdset** command to set the **windows-nt-driver-name** attribute.

Note: It is highly recommended that users who submit jobs with Infoprint Select send them to Infoprint logical destinations, not to Infoprint actual destinations.

1. Log on to a system that has the Infoprint Manager Administration GUI installed on it as a user with administrator privileges.

Note: To be able to complete this procedure, you must have the authority to use the **pdenable**, **pddisable**, and **pdset** commands. If you do not have that authority, your user id must be added to the access control lists (ACLs) on your Infoprint Manager server. Refer to the **Managing Security Administrator** procedure for additional information.

2. Launch the Infoprint Manager Administration GUI.
3. Select one of the logical destinations that will receive print jobs from Infoprint Select by clicking on it once.
4. On the menu bar, click **Logical** and select **Properties**.
5. In the **Properties** notebook, click the **Drivers** tab.

Note: If you do not see the **Drivers** tab, click **Show more**, then click the **Drivers** tab.

6. In the **New value** field next to **Windows drivers**, type the name of one of the print drivers that users will use to submit jobs in conjunction with Infoprint Select.
7. Click **Add >>**.
8. Repeat from 6 for all of the drivers that users will use with Infoprint Select.
9. Click **OK**.

Windows gateway printer

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 a workstation” on page 96 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.

Note: When Infoprint Manager is uninstalled, all Windows Gateway printers are deleted. Therefore, you must have your users manually delete the Windows Gateway printer from their desktops after the uninstall.

Infoprint Manager hot folder

An Infoprint Manager *hot folder* is a directory that is associated with a logical destination. When you copy or move a file to the hot folder, Infoprint Manager automatically submits the file to that logical destination. The default job and document attributes that are set for that logical destination are applied to jobs submitted through the hot folder.

If all of the systems that will be submitting jobs to hot folders are Windows systems, you can use standard Windows folder sharing to make the hot folder accessible to both the Infoprint Manager server and to users. If you will be submitting jobs to hot folders from other systems (such as AIX), you will have to install and configure separate software to transfer the files (such as AIX FastConnect for Windows). The procedures below assume that jobs will only be submitted from other Windows systems.

Configuring your system to work with hot folders

1. Decide what Windows system you want to create the hot folder on. Make sure that the Infoprint Manager server and all users who will use it can access that system.

Notes:

- a. It is strongly recommended that you create your hot folder on the same system that your Infoprint Manager server is installed on for two reasons:
 - Performance will be better because the files only have to be transferred over the network once.
 - If you need to restart the system that the Infoprint Manager server is installed on, the Infoprint Manager server will automatically have access to the hot folder when it restarts. If the hot folder is on a different system, you must log on to the Infoprint Manager server system to reestablish the connection.
 - b. If you plan to have more than one hot folder, you can create all of them in the same parent directory. That way, users can access all of them through a single mapped drive.
2. Use the regular Windows process to create a directory (add a folder to an existing directory). Name the folder something distinctive, so you know that it is a hot folder and, possibly, what logical destination it submits jobs to or what department should submit jobs to it.
 3. Set up sharing on the folder so that the Infoprint Manager server and users who will submit jobs to it have **write** access to it.
 4. Open the Infoprint Manager Administration GUI.

5. Find or create the logical destination that you want the hot folder to submit jobs to, and select it.
6. In the Properties notebook for the logical destination, click the **General** tab and find the **Hot folder location** field. Type the directory path that the Infoprint Manager server system will use to access the hot folder.

If the hot folder is in a different partition or on a different hard drive than your Infoprint Manager server, this path will include the drive letter for that partition or drive and the directory path to the hot folder. For example, `d:\hotfolders\copy_postscript_here`. Refer to the Infoprint Manager Administration GUI online help for further instructions.

Note: A hot folder can be associated with only one logical destination, and a logical destination can be associated with only one hot folder.

7. Set the default document and default job attributes for the logical destination. Unless the job submitter overrides them, these attribute values will be used for all jobs submitted through the hot folder. Refer to the Infoprint Manager Administration GUI online help for instructions.

When you tell users how to submit jobs to the hot folder, be sure to tell them what types of files the Infoprint Manager destination can accept and how to generate those files.

For information about submitting print files through hot folders, refer to “Infoprint Manager hot folder” on page 97.

Internet Printing Protocol (IPP) gateway

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.

Infoprint Manager LPD

The Infoprint Manager Line Printer Daemon (LPD) is a utility that allows you to submit print jobs from other operating systems using a Line Printer (LPR) client. The Infoprint Manager LPD replaces the LPD that is supplied with the Windows operating system (TCP/IP Print Services), however, it submits the files it receives directly to an Infoprint destination, not to a Windows printer. It also supports the `-o` options that are available with some LPR clients (`-o` options allow you to specify advanced Infoprint print options such as `formdefs` and `pagedefs`).

Only one LPD can run on your Infoprint Manager server system at a time. If you have TCP/IP Print Services installed, Infoprint Manager will disable it and enable the Infoprint Manager LPD. If you would prefer to use TCP/IP Print Services, use the Management Console to change the service configuration. Refer to the Management Console help for further instructions.

Important: If you have a different LPD installed, Infoprint Manager will **not** disable it, but will install and start the Infoprint Manager LPD. You must stop one of the LPDs before you try to submit a print job using an LPR client.

To submit print jobs to the Infoprint Manager LPD, you can use any LPR client. However, if you want to be able to specify advanced Infoprint options on the `-o` flag, you should use the **lprafp** sample code package. **lprafp** is an LPR client that is available as a free download from the IBM Printing Systems website. The package includes executable forms of the **lprafp** client for the Windows and AIX (version 4.3.3 and above) platforms. You can compile this code to use it on other platforms as well. IBM Printing Systems does not provide support for the package.

Refer to “Submitting print jobs through the Infoprint Manager LPD” on page 99 for information about downloading, configuring, and using the `lprafp` sample code package.

Chapter 10. Synchronizing Infoprint Manager with an Infoprint 4000 or an Infoprint 4100

The cutter-trimmer-stacker (CTS) is a post-processing device used with high speed printers for paper handling. Perform the following procedure with the help of your IBM service engineer (SE) to ensure that your IBM Infoprint 4000 or IBM Infoprint 4100 and the CTS support the same media.

1. Use either Infoprint Manager GUI to specify the media that the actual destination representing the Infoprint 4000 or the Infoprint 4100 supports.
 - a. Open the Infoprint Manager GUI as described in “Starting the Infoprint Manager GUIs” on page 83.
 - b. Click the Infoprint 4000 or Infoprint 4100 printer object in the tree window to select it.
 - c. Select **Printer** -> **Change Media** to open the **Change Media** dialog.
 - d. Associate each tray with an appropriate media. Click **Help** 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 11. 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 41. 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 12. 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. When you install the Infoprint Manager for Windows NT and Windows 2000 server, you automatically install both GUIs on that system. The Infoprint Manager Operations GUI provides a subset of the functionality available in the Infoprint Manager Administration GUI.

You can also install either one or both GUIs on a suitable Windows 95, Windows 98, Windows NT, Windows ME, or Windows 2000 system. The system does not need to have the Infoprint Manager server software installed. Follow these procedures if you want to use Infoprint Manager GUI software to administer or control your Infoprint Manager server from a remote system.

- “Preparing for the Infoprint Manager GUI”
- “Installing the software” on page 80
- “Uninstalling the Infoprint Manager GUIs” on page 84

Preparing for the Infoprint Manager GUI

Prior to March 2001, the Infoprint Manager GUIs required the Java™ Runtime Environment (JRE) from IBM at version 1.1.8. In March 2001, this prerequisite changed. Now, both Infoprint Manager GUIs require the IBM Cross Platform Technologies for Windows® (CPT) version 2.0 Runtime Environment. This is the only supported Runtime Environment for running the Infoprint Manager GUIs.

Because of this change, we recommend that you uninstall any versions of the Infoprint Manager GUIs that you installed prior to March 2001 before you install the new Runtime Environment and the new GUIs. If you are not certain when the GUIs were installed, it is best to uninstall them before you continue.

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

1. Type `java -fullversion` on an MS-DOS command line.
2. Verify that output from the command contains the following text:
`cn13--20010609`
3. If the output from the command does not contain the text above, uninstall the currently installed Runtime Environment component:
 - a. Click the Windows **Start** button and select **Settings** -> **Control Panel**, then double-click the **Add/Remove Programs** icon.
 - b. Find the **IBM Runtime Environment, Java(TM) Tech. Edition, 1.1.8** entry in the list of programs that can be removed and click **Add/Remove**. Follow the instructions on the screen to complete the process.
 - c. Remove the JRE or Runtime Environment entry from the PATH environment variable.

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

1. Insert the IBM Infoprint Manager Client CD-ROM into the drive.
2. Launch the `\jre\install.exe` 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 **install.exe** icon.
3. Provide the information as prompted by the InstallShield program. When the installer asks if you want to install the Runtime Environment as the system Java Virtual Machine (JVM), answer **Yes**.
4. Type `java -fullversion` on an MS-DOS command line.
5. Verify that the output from the command contains the following text:


```
cn13--20010609
```

Installing the software

You can install the Infoprint Manager GUIs on any suitable Windows workstation that has network access to your Infoprint Manager server. This section contains the following information:

- “Installing the Infoprint Manager Operations GUI”
- “Installing the Infoprint Manager Administration GUI” on page 82
- “Starting the Infoprint Manager GUIs” on page 83

Installing the Infoprint Manager Operations GUI

If you are reinstalling or updating an existing version of the Infoprint Manager Operations GUI, close all instances of the Infoprint Manager Administration GUI and Infoprint Manager Operations GUI that are running on this system before you continue with the installation to avoid problems with files that need to be replaced.

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

1. If you have not already done so, uninstall any existing versions of the Infoprint Manager GUIs that you have on this system.
2. Insert the IBM Infoprint Manager Client CD-ROM into the drive.
3. 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.

Note: Non-English versions of the GUI will only run correctly if the locale of your system matches the locale listed for each language version in Table 23 on page 82. If your system uses a locale that is not listed, it is recommended that you use the English version of the GUI.

Table 22. Infoprint Manager Operations GUI language versions and corresponding locales

Folder/Language	Locale
Danish	da_DK (Danish (Denmark))
Finnish	fi_FI (Finnish)
French	fr_FR (French (France))

Table 22. Infoprint Manager Operations GUI language versions and corresponding locales (continued)

Folder/Language	Locale
German	de_DE (German (Germany))
Italian	it_IT (Italian (Italy))
Japanese	Ja_JP (Japanese)
Norwegian	no_NO (Norwegian)
SChinese	zh_CH (Chinese (PRC))
Spanish	es_ES (Spanish (Spain))
Swedish	sv_SE (Swedish (Sweden))
TChinese	zh_TW (Chinese (Taiwan))

4. Double-click the **ipguiwinsetup.exe** icon to launch InstallShield.

It may take a minute for the installer to start. Do not click on any other part of the screen until the installer begins. If you do, the installer window may be hidden behind other windows.

5. Follow the instructions on the InstallShield screens, paying attention to the following guidelines.

- If you are installing over a previous version of the Infoprint Manager GUI software, click **yes** for all questions about replacing files. If you will be using this GUI to work with an Infoprint Manager for Windows NT and Windows 2000 server, do not change any of the selected check boxes.
- You should only install the DCE version of the Infoprint Manager GUIs if you will be using them to work with the DCE version of Infoprint Manager for AIX.
- The Infoprint Manager GUI offers three different views: **Basic**, **Advanced**, and **Distributed**. The installer asks if you want to place icons for any and all of the views on the your desktop. The Infoprint Manager for Windows NT and Windows 2000 server only supports the advanced view of the Infoprint Manager GUIs, so if you plan to use the GUI to work with an Infoprint Manager for Windows NT and Windows 2000 server, you should only select the **Advanced** view. If you plan to use the GUI to work with an Infoprint Manager for AIX server, you can choose to install any (or all) of the icons. Each one is most suitable for a particular situation, as described below.
 - 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.
- The Infoprint Manager Operations GUI requires approximately 9.1 MB of memory on your hard drive, whether you install one view or all three.

Installing the Infoprint Manager Administration GUI

If you are reinstalling or updating an existing version of the Infoprint Manager Administration GUI, close all instances of the Infoprint Manager Administration GUI and Infoprint Manager Operations GUI that are running on this system before you continue with the installation to avoid problems with files that need to be replaced.

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

1. If you have not already done so, uninstall any existing versions of the Infoprint Manager GUIs that you have on this system.
2. Insert the IBM Infoprint Manager Client CD-ROM into the drive.
3. 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.

Note: Non-English versions of the GUI will only run correctly if the locale of your system matches the locale listed for each language version in Table 23. If your system uses a locale that is not listed, it is recommended that you use the English version of the GUI.

Table 23. Infoprint Manager Administration GUI language versions and corresponding locales

Folder/Language	Locale
French	fr_FR (French (France))
German	de_DK (German (Germany))
Italian	it_IT (Italian (Italy))
Japanese	Ja_JP (Japanese (Japan))
Spanish	es_ES (Spanish (Spain))

4. Double-click the **ipguiwinadmsetup.exe** icon to launch InstallShield.

It may take a minute for the installer to start. Do not click on any other part of the screen until the installer begins. If you do, the installer window may be hidden behind other windows.
5. Follow the instructions on the InstallShield screens, paying attention to the following guidelines.
 - If you are installing over a previous version of the Infoprint Manager GUI software, click **yes** for all questions about replacing files. If you will be using this GUI to work with an Infoprint Manager for Windows NT and Windows 2000 server, do not change any of the selected check boxes.
 - You should only install the DCE version of the Infoprint Manager GUIs if you will be using them to work with the DCE version of Infoprint Manager for AIX.
 - The Infoprint Manager GUI offers three different views: **Basic**, **Advanced**, and **Distributed**. The installer asks if you want to place icons for any and all of the views on the your desktop. The Infoprint Manager for Windows NT and Windows 2000 server only supports the advanced view of the Infoprint Manager GUIs, so if you plan to use the GUI to work with an Infoprint

Manager for Windows NT and Windows 2000 server, you should only select the **Advanced** view. If you plan to use the GUI to work with an Infoprint Manager for AIX server, you can choose to install any (or all) of the icons. Each one is most suitable for a particular situation, as described below.




- 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.
- The Infoprint Manager Administration GUI requires approximately 9.5 MB of memory on your hard drive, whether you install one view or all three.

Starting the Infoprint Manager GUIs

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 Table 24 for illustrations of the icons). The label under the Infoprint Manager Administration GUI icon (**Advanced Administration Infoprint**) is usually truncated. The label under the Infoprint Manager Operations GUI icon (**Advanced Infoprint**) is not truncated.

Table 24. The Infoprint Manager GUI icon

Infoprint Manager Operations GUI	Infoprint Manager Administration GUI	Infoprint Manager Administration GUI (truncated)
 Advanced Infoprint	 Advanced Administration Infoprint	 Advanced Administrati...

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

Note: If you open the GUI and the colors look strange (they may appear in a plaid pattern), minimize the GUI and then maximize it. The colors should return to normal. This problem is most common on Windows 2000 systems

running in 256 colors (8-bit color). To prevent the problem, you can increase the color depth of your system to 16- or 24-bit color.

The Infoprint Manager Administration GUI along with the Infoprint Manager Management Console allows the administrator to access almost all of the functions available in Infoprint Manager for Windows NT and Windows 2000. 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 Administration Procedures, available on your Infoprint Manager Publications CD-ROM or on the IBM Printing Systems web site at <http://www.ibm.com/printers>, for additional information. On the Printing Systems homepage, click Infoprint Manager under **Resources** for, then click Infoprint Manager for Windows NT and Windows 2000 on the Infoprint Manager Family homepage. Select **Product Library** from the drop-down list in the right hand navigation bar, then click the link for **Administrator Procedures**.

When you first run the Infoprint Manager GUI, you must provide the host name or IP address and the port number that the Infoprint Manager server communicates with client systems through. The default port number is 6874.

Uninstalling the Infoprint Manager GUIs

To uninstall the Infoprint Manager GUIs, follow these steps:

1. Click the Windows **Start** button and select **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** (Windows NT) or the **Change/Remove** (Windows 2000) button.

Note: Only click the button once, then wait for at least 30 seconds before you do anything else. If you do not wait for the first panel of the uninstaller to appear, it may get lost behind other windows. If you don't see first panel of the uninstaller after 30 seconds, press and hold the **Alt** key, then press the **Tab** key to bring the window to the front.

5. Follow the instructions on the InstallShield Uninstaller screens that display.

Chapter 13. Installing Infoprint Manager Notifications

Infoprint Manager Notifications allows your Infoprint Manager server to send notification messages to any any Windows 95, Windows 98, Windows NT, or Windows 2000 system that has the notification client installed. The Infoprint Manager notification server and notification client software are both automatically installed on the system that your Infoprint Manager server software runs on. In addition, you can install the notification client on any other Windows system that is network-connected. Follow the procedures in this chapter if you want to use the Infoprint Manager Notifications client to receive messages from your Infoprint Manager server on a remote system.

Refer to the administrator procedure **Using Infoprint Manager Notifications** for information about setting up notification profiles.

This document contains the following sections:

- “Preparing for Infoprint Manager Notifications”
- “Installing the software” on page 86
- “Starting Infoprint Manager Notifications” on page 86
- “Uninstalling Infoprint Manager Notifications” on page 86

Preparing for Infoprint Manager Notifications

Infoprint Manager Notifications requires the the IBM Cross Platform Technologies for Windows[®] version (CPT) 2.0 Runtime Environment. This is the only supported Runtime Environment for running Infoprint Manager Notifications.

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

1. Type `java -fullversion` on an MS-DOS command line.
2. Verify that output from the command contains the following text:
`cn13--20010609`
3. If the output from the command does not contain the text above, uninstall the currently installed Runtime Environment component:
 - a. Click the Windows **Start** button and select **Settings** -> **Control Panel**, then double-click the **Add/Remove Programs** icon.
 - b. Find the **IBM Runtime Environment, Java(TM) Tech. Edition, 1.1.8** entry in the list of programs that can be removed and click **Add/Remove**. Follow the instructions on the screen to complete the process.
 - c. Remove the JRE or Runtime Environment entry from the PATH environment variable.

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

1. Insert the IBM Infoprint Manager Client CD-ROM into the drive.
2. Launch the `\jre\install.exe` 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 **install.exe** icon.
3. Provide the information as prompted by the InstallShield program. When the installer asks if you want to install the Runtime Environment as the system Java Virtual Machine (JVM), answer **Yes**.
4. Type `java -fullversion` on an MS-DOS command line.
5. Verify that the output from the command contains the following text:
`cn13--20010609`

Installing the software

Follow these steps to install the Infoprint Manager Notifications software on a remote system.

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.
There are two setup files to choose from:
 - If you are installing Infoprint Manager Notifications on a Windows system running in Mandarin (Chinese (Taiwan)), use **notifysetup_zh_TW.exe**
 - If you are installing on any other language Windows system, use **notifysetup.exe**
5. Double-click the appropriate icon for the language your system runs in to launch InstallShield.
6. Follow the instructions on the InstallShield screens.

Starting Infoprint Manager Notifications

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

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** (Windows NT) or the **Change/Remove** (Windows 2000) button.

Note: Click the button only once, then wait for at least 30 seconds before you do anything else. If you do not wait for the first panel of the uninstaller to appear, it may get lost behind other windows. If you don't see first panel of the uninstaller the after 30 seconds, press and hold the **Alt** key, then press the **Tab** key to bring the window to the front.

5. Follow the instructions on the screens that display.

Chapter 14. Preparing client systems for various job submission methods

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.

Important: Prior to January 2002, Infoprint Select and the OS/390 Port Monitor could **not** be installed on the same client system. If you need to install both Infoprint Select and the OS/390 Port Monitor on the same system, you must install Infoprint Select from the Common Client CD for the PTF UR52773 (APAR IR45231). If the OS/390 Port Monitor does not work after you install the new version of Infoprint Select, reinstall the port monitor.

Even with the change in PTF UR52773 (APAR IR45231), you cannot install the OS/390 Port Monitor on the system that your Infoprint Manager server is installed on.

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 on the **File** menu). In addition, Infoprint Select provides the following POSIX commands which can be issued at a Command Prompt on the client system:

- **pdaccount**
- **pdclean**
- **pdcreate**
- **pddelete**
- **pddisable**
- **pdenable**
- **pdl**
- **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* (S544-5475).

By default, Infoprint Manager security allows everyone to use the **pdpr**, **pdlS**, **pdmod**, **pdq**, **pdrm**, while only members of the **admin** and **oper** security groups can use the other commands. (Users who are not members of the **admin** or **oper** groups can only use **pdmod** and **pdrm** on their own print jobs.)

For additional information about Infoprint Manager security and permissions, refer to the on-line help system in the Management Console and the **Managing Security Administrator** procedure.

Installing Infoprint Select from a CD-ROM

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

Notes:

1. If you plan to use Infoprint Select to print PostScript jobs to an AIX DSS, BSD DSS, or Passthrough DSS printer, be sure to use the PostScript printer driver that came with your printer when you create an Infoprint Select printer on your desktop. These drivers include PostScript Printer Definitions (PPDs) that are specific to your printer. Do not use the printer drivers and PPDs that are provided with Infoprint Select. They contain specific actual destination attributes that apply only to PSF DSS printers.
2. If you change a port number on a Windows 95 system, you may receive the following message:

Fonts downloaded to this printer while connected to Infoprint Select may be lost. You may need to resend them again on *your port*.

You can ignore this message.

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.
 - d. Double-click the **win** folder.
 - e. Double-click the folder that corresponds to your preferred language.
3. Double-click the **select.exe** icon.
4. Follow the instructions on the InstallShield screens to install the program.

Creating Infoprint Select printers

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” on page 89
- “Creating Infoprint Select printers on Windows 95/98 systems” on page 90

- “Adding your first Infoprint Select printer on Windows 95/Windows 98 systems” on page 90
- “Adding an additional Infoprint Select printer on Windows 95/Windows 98 systems” on page 91
- “Creating Infoprint Select printers on Windows NT systems” on page 92
 - “Adding your first Infoprint Select printer on Windows NT systems” on page 92
 - “Adding an additional Infoprint Select printer on Windows NT systems” on page 93
- “Creating Infoprint Select printers on Windows 2000 systems” on page 94
 - “Adding your first Infoprint Select printer on Windows 2000 systems” on page 94
 - “Adding an additional Infoprint Select printer on Windows 2000 systems” on page 95

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 that the Infoprint Manager server uses to communicate with client systems

The default is 6874.

You can find this port number in the **Service Configuration** dialog in the Management Console.

- The names of logical destinations to use
- The names of the drivers to associate with each logical destination
- Where the driver files are located (on a CD-ROM, on a network server, or on your local system)

Important: Drivers and Finishing The automatic data stream transforms that PSF printers use do not support finishing (stapling). As a result, if you plan to use Infoprint Select to submit PCL or PostScript jobs to a PSF printer (destination), you cannot specify finishing options when you submit a job, even if the print driver you use supports those options. It is recommended that you either use a different method to submit those print jobs, or that you submit them to an Infoprint printer that does not transform the data stream (such as a Passthrough printer or an AIX printer).

If you cannot use a different submission method and cannot submit your jobs to a different type of Infoprint printer, the only way to request finishing options on PCL and PostScript jobs submitted to a PSF destination is to use a default job. A *default job* is a list of attributes that is applied to every job that a particular logical destination receives. You can use the Infoprint Manager Administration GUI to modify the default job for the logical destination that Infoprint Select sends jobs to so that it requests the appropriate finishing options. However, this method is not recommended for two reasons:

1. Every job that you send to that logical destination will be finished the same way. For example, if you set the **Finishing options**

attribute of the default job to **staple-top-left**, every job that is submitted to that printer will be stapled, even if the job is only one page long.

2. A logical destination can only have one default job, and a default job can only have one finishing option set. If you want to use different finishing options, you must create multiple logical destinations, each with different options set on the default jobs. Then, you must create a different printer on your desktop to submit jobs to each logical destination.

Creating Infoprint Select printers on Windows 95/98 systems

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 **Local Printer** and click **Next**.
5. Click **Have Disk**.
 - a. Click **Browse**.
 - 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 **Replace existing driver** and click **Next**.
8. In the **Available ports** list, find **Infoprint (Infoprint Select)** and check the box next to it.

Note: If you just installed Infoprint Select and cannot find it in the list, restart your system and start this procedure again from the beginning. If you cannot find the Infoprint Select port after you re-start the system, you may have to re-install Infoprint Select.

9. Click **Configure Port**. The **Infoprint Port** window displays.
10. In the **Print Server** field, select **Infoprint Manager** from the drop-down list.
11. In the **Host Name** field, type the host name of your Infoprint Manager server.
12. In the **Host Port** field, type the port number that your Infoprint Manager server uses to communicate with client systems. The default port is 6874.

Note: You can find this port number in the **Service Configuration** dialog in the Management Console.

13. Click **Refresh Printer Selection List**.
14. Select the appropriate printer from the list.
15. Click **OK**.
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. When you are asked **Would you like to print a test page?**, select **No** 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 **Files Needed** dialog may appear. In all likelihood, the required file (adfonts.mfm) is already present on your system. If the **Files Needed** dialog appears, 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, and select the file that is needed.
3. Click **OK**.
4. Click **OK** to close the **Copying Files** dialog and to complete the configuration.

If the **Files Needed** dialog appears again, 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.

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

1. Open a Command Prompt window and edit the autoexec.bat file.
2. Add the following line to the file:
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”.

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. In the **Printers** window, select the printer that you just created.
2. Click **File**—>**Properties** and the **Printer Properties** appears, where *Printer* is the printer that you just created.
3. Click the **PostScript** tab and click **Advanced...** The **Advanced PostScript Options** dialog box appears.
4. Click **Pure Binary Data**.
5. Click **OK** in the **Advanced PostScript Options** dialog box.
6. Click **OK** in 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 89. Also, you must perform the

appropriate server configuration as described in “Configuring your Infoprint Manager 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 90.

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, click the **Details** tab.
5. In the **Details** tab, click **Add Port**.
6. In the **Add Port** window, select **Other**.
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.) 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 90, 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.

Creating Infoprint Select printers on Windows NT systems

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 89.
- Configure the server as described in “Configuring your Infoprint Manager server to work with Infoprint Select” on page 69.

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

1. On the Windows desktop, click the Windows **Start** button and select **Settings** -> **Printers**.
2. Double-click the **Add Printer** icon. The **Add Printer Wizard** window displays.
3. Select **My Computer** and click **Next**.
4. In the **Available ports** list, find **Infoprint Select** and check the box next to it.

Note: If you just installed Infoprint Select and cannot find it in the list, restart your system and start this procedure again from the beginning. If you cannot find the Infoprint Select port after you re-start the system, you may have to re-install Infoprint Select.

5. Click **Configure Port**. The **Infoprint Port Configuration** dialog displays.

6. In the **Print Server** field, select **Infoprint Manager** or **Infoprint Manager Server** from the dropdown list.
7. In the **Host Name** field, type the host name of your Infoprint Manager server.
8. In the **Host Port** field, type the port number that your Infoprint Manager server uses to communicate with client systems. The default port is 6874.

Note: You can find this port number in the **Service Configuration** dialog in the Management Console.

9. Click **Refresh Printer Selection List**.
10. Select the appropriate printer from the list.
11. Click **OK**.
12. Click **Next**.
13. Select the printer driver you wish to install and click **Next**.
14. If the next dialog tells you that the printer driver already exists, select **Replace existing driver** and click **Next**.
15. 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**.
16. Confirm that the **Not shared** radio button is selected and click **Next**.
17. When you are asked **Would you like to print a test page?**, select **No** and click **Finish**.

When the Files Needed dialog appears: 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. In the **Files Needed** dialog, click **Browse**.
2. Navigate to the c:\winnt\system32 directory (assuming that your operating system is installed on the c: drive) and select the file that is needed.
3. Click **Open**.
4. Click **OK**.
5. 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:
 - a. Insert the Windows NT operating system CD-ROM.
 - b. In the **Files Needed** dialog, click **Browse**.
 - c. Navigate to the d:\I386\Pscript.dl_ file (where *d*: is your CD-ROM drive) and select the file that is needed.
 - d. 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 89. Also, you must perform the appropriate server configuration as described in “Configuring your Infoprint Manager 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 92.

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

1. On the Windows desktop, click the Windows **Start** button and select **Settings** -> **Printers**.
2. Double-click the **Add Printer** icon. The **Add Printer Wizard** window displays.
3. Select **My Computer** and click **Next**.
4. Click **Add Port**.
5. In the **Printer ports** dialog, find the **Infoprint port monitor** and select it.
6. Click **New Port**.
7. 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.)
8. Click **Close** to return to the **Add Printer Wizard**. The port you just created is selected.
9. Continue with step 5 of the procedure documented in “Adding your first Infoprint Select printer on Windows NT systems” on page 92, configuring the new port you just added.

Creating Infoprint Select printers on Windows 2000 systems

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 89.
- Configure the server as described in “Configuring your Infoprint Manager 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. In the **Local or Network Printer** dialog, 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. In the **Select the Printer Port** dialog, select the **Use the following port** check box, then scroll down the list of ports until you find the **Infoprint** port and select it. Click **Next**.
5. On the next dialog, select the manufacturer and model of your printer and 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. When you are asked **Would you like to print a test page?** select **No** and click **Next**.
10. Click **Finish**.

11. From the Windows desktop, click the Windows **Start** button and select **Settings**—> **Printers**.
12. On the menu bar of the **Printers** window, click **File** and select **Server Properties**.
13. In the **Print Server Properties** window, click the **Ports** tab.
14. Highlight the **Infoprint Select** port that you want to configure and click **Configure Port**.
15. In the **Infoprint Port Configuration** window, find the **Print Server** field and select **Infoprint Manager** or **Infoprint Manager Server** from the dropdown list.
16. In the **Host Name** field, type the host name of your Infoprint Manager server.
17. In the **Host Port** field, type the port number that your Infoprint Manager server uses to communicate with client systems. The default port is 6874.

Note: You can find this port number in the **Service Configuration** dialog in the Management Console.

18. Click **Refresh Printer Selection List**.
19. Select the appropriate printer from the list.
20. Click **OK**.
21. Click **Close**.

When Files Needed dialog appears: 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 **Browse**.
2. Navigate to the c:\winnt\system32 directory (assuming that your operating system is installed on the c: drive), and select the file that is needed.
3. Click **Open**.
4. Click **OK**.
5. 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:
 - a. Insert the Windows 2000 operating system CD-ROM.
 - b. Click **Browse** on the **Files Needed** dialog.
 - c. Navigate to the d:\I386\Pscript.dl_ file (where *d*: is your CD-ROM drive).
 - d. 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 89. Also, you must perform the appropriate server configuration as described in “Configuring your Infoprint Manager 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 94.

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. In the **Local or Network Printer** dialog, select **Local printer** and clear the **Automatically detect and install my Plug and Play Printer** checkbox. Click **Next**.
4. Click **Create a new port** and highlight **Infoprint port monitor** 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 94, configuring the new port you just added.

Windows gateway printer

A **Windows gateway printer** is a Windows shared printer that you create on your Infoprint Manager server system. Users connect to it just as they would to any other shared printer on your network— by using the Add Printer Wizard to create a Windows printer on their desktops.

Adding a Windows gateway printer to a workstation

To add a Windows gateway printer to a workstation, follow the steps below. This procedure assumes that the print system administrator has already created the Windows gateway printer on the Infoprint Manager server system.

1. Locate the share name of the Windows gateway printer. Your print system administrator should be able to provide the name.
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** to create a printer that will be managed by network print server. 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 created the Windows gateway printer, you can print to it just as you would print to any other printer.

Note: When the Infoprint Manager server is uninstalled, any Windows gateway printers that exist on the server are deleted. However, connections to those Windows gateway printers that have been added to workstations are still present; they are still displayed in the Printers window, and you can still try to print to them from applications. Because the Windows gateway printer on the Infoprint Manager server no longer exists, those print jobs will fail. If you try to print to one of these Windows gateway printer, you will get an application-dependent message that does not identify this problem. To resolve this problem, delete the Windows gateway printer from your desktop and create a new one once your print system administrator has created a new one.

IPP gateway printer

An **Internet Printing Protocol (IPP) gateway printer** is a printer that you create on a client workstation using IPP client software, such as the Windows 2000 IPP client. Users submit print jobs to that printer, and they are sent to Infoprint Manager through the Infoprint IPP gateway. The IPP gateway can then send the job on to any Infoprint printer, even those that are not IPP-enabled.

Adding an IPP gateway printer to a workstation

To add a printer that uses the IPP gateway to your desktop, follow the steps below. This procedure assumes that you already have IPP client software installed on your workstation. If you do not, the Printer Working Group (the organization that is leading the development of IPP) provides a list of IPP client software that you can use to find an appropriate client at: <http://www.pwg.org/ipp/IPP-Products.html>.

1. Locate the address of the printer that you want to print to. Your print system administrator should be able to provide the address.
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.

Infoprint Manager hot folder

An Infoprint Manager *hot folder* is a directory that is associated with a logical destination. When you copy or move a file to the hot folder, Infoprint Manager automatically submits the file to that logical destination. The default job and document attributes that are set for that logical destination are applied to jobs submitted through the hot folder.

To submit print jobs through an Infoprint Manager hot folder, you do not have to install any Infoprint client software or create any printers. All you have to do is map a network drive on your system to the hot folder (or to a parent directory of the hot folder). Then, you can use a simple copy and paste to put your print files in that directory. The hot folder submits the job to an Infoprint logical destination to be printed.

Note: Make sure you know what kinds of files the Infoprint Manager destination will accept. The files that you put in the hot folder should already be print data streams (such as PCL or PostScript), not the standard "working" files that many desktop programs create.

For example, if you are writing a report using word processing software, you cannot simply save the file and copy that file to the hot folder to be printed. You need to convert it into a print data stream first. One way to do that conversion is to create a printer on your desktop that uses a PostScript or PCL driver and the **FILE:** port. If you send a job to that printer, the output won't be printed; it will be saved in a file (called `my_report.ps`, for example). Then, you can copy the new file into the hot folder to be sent to Infoprint Manager.

Contact your printing system administrator to find out where the hot folders are on your network, and which printer each hot folder sends job to.

Mapping a network drive

On your system, use the standard Windows method to map a network drive (available in Windows Explorer) to the Infoprint Manager hot folder. If there are multiple hot folders within the same directory, you only have to map one network drive to the parent directory; you will be able to access all of the subdirectories through it.

Submitting jobs through a hot folder

To submit a job through a hot folder, simply copy or move the print file to the hot folder.

Note: Files are deleted from the hot folder after they are sent to Infoprint Manager.

Specifying job attributes

By default, jobs submitted through a hot folder use the attribute values in the default document and default job associated with the logical destination. If you want to specify other attributes or use different values for existing attributes, do the following.

Note: By default, hot folder jobs are submitted to Infoprint Manager with job notifications turned **off**. If you want to receive notifications about jobs that you submit through hot folders, you must specify a **notification-profile** with an explicit **delivery-address** in the .att file.

1. Either on your system or in the hot folder itself, create a text file to use as your attributes file. Name the attributes file *filename.att*, where *filename* is the same as the file name of the print file. For example, if the print file is *report.pdf*, the attributes file is *report.pdf.att*.
2. In the attributes file, specify the Infoprint attributes and values that you want to use for this job. For example, if you want to print three single-sided copies of *report.pdf*, *report.pdf.att* looks like this:

```
copy-count = 3
sides = 1
```

Note: The attributes file is in the same format as a **-X** file passed to a **pdpr**. For information about job and document attributes, refer to *Infoprint Manager: Reference*, S544-5475.

3. If you created the attributes file on your system, copy or move the file to the hot folder. The Infoprint Manager logical destination recognizes the .att file extension as an attributes file and knows not to try to print it.
4. Copy or move the print file to the hot folder. The Infoprint Manager logical destination sees the print file and looks for an attributes file with the same file name. Both of the files are taken and your attributes are used.

Printing large jobs

Because it takes time to copy or move files, the Infoprint Manager logical destination may try to take a large job out of the hot folder before it is finished copying. You can prevent the logical destination from taking partial jobs by *staging* large jobs. To do this:

1. Make a copy of the print file on your local system.
You will end up with 2 files: **report.pdf** and **copy of report.pdf**.
2. Rename the copy of the print file so that it has the same name as the original print file and the extension .stg.
Rename **copy of report.pdf** to **report.pdf.stg**.

3. Copy the new file to the hot folder.
Copy **report.pdf.stg** and paste it in the hot folder.

Note: The Infoprint Manager logical destination ignores files with the .stg extension.

4. When the file is finished copying, change the extension back to the original extension.

Rename **report.pdf.stg** back to **report.pdf**. Infoprint Manager will pick up the renamed file and send it to print.

Submitting multiple-document jobs

You can also use staging to print jobs that contain multiple documents. In this case, you stage an entire directory. The Infoprint Manager logical destination prints the documents as one job, in the order that you copied the files into the directory.

1. Navigate to the hot folder (using Windows Explorer, for example).
2. In the hot folder directory, create a new folder named *jobname.stg*, where *jobname* is any name you choose.

Note: The Infoprint Manager logical destination ignores directories with the .stg extension.

3. Copy the documents you want to print into the subdirectory in the **same** order that you want to print them.

Note: If you copy multiple files in a single operation, they may not be copied in the same order that you selected them. If the print order matters, copy the files one at a time.

4. If you want to override the default attributes, create an attributes file called *jobname.att*, where *jobname* is the same as the subdirectory name, and copy it into the hot folder.
5. Rename the subdirectory from *jobname.stg* to *jobname*. The Infoprint Manager logical destination then accepts all of the files in the subdirectory as a single job.

lprafp

Submitting print jobs through the Infoprint Manager LPD

To submit jobs to the Infoprint Manager LPD using an LPR client, you do not have to create a Windows gateway printer or install any Infoprint client software. You must, however, install an LPR client on the system that you are submitting jobs from. You can use any LPR client, but if you want to be able to specify advanced Infoprint options on the `-o` flag, you should use the **lprafp** sample code package.

lprafp is an LPR client that is available as a free download from the IBM Printing Systems website. The package includes executable forms of the **lprafp** client for the Windows and AIX (version 4.3.3 and above) platforms. You can compile this code to use it on other platforms as well. IBM Printing Systems does not provide support for the package.

To download the package, navigate to the IBM Printing Systems web site at <http://www.ibm.com/printers>. On the home page, click **Support** in the left hand navigation bar, then click **Downloads, fixes, drivers, and updates**, and then **Tools (Unsupported ASIS)**. Find the **lprafp- LPR sample code package** link under **Multiple Systems**.

Note: The Microsoft LPR client supports a `-o` flag, but it is not the same as the Infoprint `-o`. Any values you pass to Infoprint Manager using the Microsoft `-o` flag will be lost. In addition, some LPR clients provide print control functions, such as landscape print. The Infoprint Manager LPD does not support these options.

Preparing to submit print jobs

When you submit jobs to the Infoprint Manager LPD, it uses a mapping file to match the keywords you specify on the `-o` option with Infoprint attributes. A sample mapping file comes with Infoprint Manager for Windows NT and Windows 2000; before you submit any print jobs to the Infoprint Manager LPD, you should modify this file to meet your needs.

To modify the mapping file do the following.

1. Open the file `<install path>\var\pd\lpd\lpdmap.txt` (where `<install path>` is the directory where Infoprint Manager is installed) in a text editor such as Notepad.
2. Read all of the instructions in the mapping file before you make any changes.
3. Edit the mappings as necessary and save the file using the same name.

Because all LPR clients use different keywords, it is impossible to list them all. The mappings listed are "best guess" mappings, and may not generate the results you need. The best way to see what values you need to add or change is to uncomment the line that reads:

```
* DEBUG
```

and save the file. (To uncomment the line, delete the `*`.) Submit a print job through the LPD and check the output. If the job fails or if it prints incorrectly, check the error messages in the server log in the Management Console. Use them to help determine which keywords are missing or mapped incorrectly. When you are finished, be sure to open the mapping file and comment the `DEBUG` line out again.

Submitting print jobs

When you submit print jobs using the LPR client, all you need to specify is the Infoprint Manager server and the name of an Infoprint destination (logical or actual). The Infoprint Manager LPD will submit the job to the Infoprint print spool.

Chapter 15. Installing the AFP driver

The Infoprint AFP Driver software allows you to produce Advanced Function Presentation (AFP) output from desktop applications so you can use the powerful features of AFP in a wider range of environments. Used in conjunction with Infoprint Select or a Windows gateway printer, the AFP Driver provides a high degree of control over the appearance of your printed documents. This section contains procedures for unpacking and installing the Infoprint AFP Driver on a Windows system.

English versions of the AFP drivers for all Windows platforms are provided on the Infoprint Manager Client CD-ROM. You can also download English and other language versions of the AFP driver from the IBM Printing Systems web site at <http://www.ibm.com/printers>.

Use the procedures below to unpack and install the AFP drivers on your Windows system.

Note: If you plan to use this driver to submit print jobs using Infoprint Select, install this driver on the same system that Infoprint Select is installed on. If you plan to use this driver to submit print jobs using a Windows gateway printer, install the driver on the system that your Infoprint Manager server is installed on.

Unpacking AFP driver files

1. On the system that you want to install the AFP driver on, create a directory called `afpdriver`.
2. Insert the most recent Infoprint Manager Common Client CD-ROM into your CD-ROM drive and navigate to the directory that contains the driver files.
 - a. Double-click the **My Computer** icon.
 - b. Double-click the CD-ROM drive.
 - c. Double-click the **drivers** folder.
 - d. Double-click the **afp** folder.
 - e. Double-click the **Win9X**, **WinNT** or **Win2000** folder.
 - f. Double-click the **english** folder.
3. Click the `ibmafp95.exe`, the `ibmafpnt.exe` or the `ibmafp2000.exe` file to select it.
4. In the menu bar, click **Edit** -> **Copy**.
5. Go back to the My Computer window and navigate to the `afpdriver` directory that you created in 1.
6. In the `afpdriver` directory window, click **Edit** -> **Paste**.
7. Verify that the file appears in the directory, then close all of the windows.
8. Click the Windows **Start** button and select **Programs** -> **Command Prompt**. (On Windows 2000, the correct path is **Start** -> **Programs** -> **Accessories** -> **Command Prompt**.)
9. Navigate to your `afpdriver` directory.
10. With the Command Prompt in that directory,
On **Windows 95/98** type:
`ibmafp95.exe c:\path /d`

On **Windows NT** type:

```
ibmafnt.exe c:\path /d
```

On **Windows 2000** type:

```
ibmaf2000.exe c:\path /d
```

Where *c:\path* is the directory that you want to unpack the driver files into. You **can** unpack the driver files into the `afpdriver` directory.

11. Press **Enter**.

The files will be unpacked into the directory.

Installing the AFP driver

Once the files have been unpacked, you must complete the process of installing the AFP driver by creating a printer that uses the driver.

Notes:

1. The Windows printers that result from these procedures do not send print jobs to actual printer devices; they generate files. If you want to create a Windows printer that sends jobs to one of your printer devices, change the procedure as necessary.
2. Once you complete this procedure, you can delete the printer that you created. The driver will still be installed.

Installing the Infoprint AFP Driver on a Windows NT system

1. Click the Windows **Start** button and select **Settings** -> **Printers**.
2. In the Printers window, double-click the **Add printer** icon to start the **Add Printer Wizard**.
3. On the first panel of the wizard, select **My Computer** and click **Next**.
4. In the **Select Printer Port** dialog, select **FILE:** and click **Next**.
5. In the next dialog, click **Have disk** without selecting a printer or a manufacturer.
6. In the **Install from disk** dialog, type the path to the directory that you copied the AFP driver files into (for example, `c:\afpdriver`) and click **OK**.
7. Select the printer that you plan to use this driver with from the list and click **Next**.

Note: If your printer does not appear in the list, select **IBM AFP *nmn***, where *nmn* is the resolution of your printer.

8. In the next dialog, accept the name of the printer and do not set it to be your default printer. Click **Next**.
9. Leave the printer **Not shared** and click **Next**.
10. Select **No** to not print a test page and click **Finish**.

Installing the Infoprint AFP Driver on a Windows 2000 system

1. Click the Windows **Start** button and select **Settings** -> **Printers**.
2. In the Printers window, double-click the **Add printer** icon to start the **Add Printer Wizard**.
3. On the first panel of the wizard, click **Next**.
4. In the **Local or Network printer** dialog, select **Local** and click **Next**.
5. In the **Select Printer Port** dialog, select **FILE:** and click **Next**.

6. In the next dialog, click **Have disk** without selecting a printer or a manufacturer
7. In the **Install from disk** dialog, type the path to the directory that you copied the AFP driver files into (for example, c:\afpdriver) and click **OK**.
8. Select the printer that you plan to use this driver with from the list and click **Next**.

Note: If your printer does not appear in the list, select **IBM AFP *nnn***, where ***nnn*** is the resolution of your printer.

9. In the next dialog, accept the name of the printer and do not set it to be your default printer. Click **Next**.
10. Leave the printer **Not shared** and click **Next**.
11. Do not print a test page and click **Next**.
12. Click **Finish**.
13. If a dialog displays telling you that the driver doesn't have a digital signature, simply select **Yes** to finish installing the driver.

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EuroReady

Infoprint Manager is capable of processing data containing the euro sign. Font character sets and code pages that contain and map the euro sign consistently with the application must be present either in a host library or in the printer. AFP fonts that support the euro sign are included in the AFP Font Collection (Program Number 5648-B33).

Year 2000 Ready

Infoprint Manager is Year 2000 ready. When used in accordance with its associated documentation, Infoprint Manager is capable of correctly processing, providing, and receiving date data within and between the twentieth and twenty-first centuries, provided all other products used with Infoprint Manager (including software, hardware, and firmware) properly exchange accurate date data with it.

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Getting Started
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