Infoprint Manager for Windows

IBM

Getting Started

Version 2 Release 1

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> **Internet**
>
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Part 1. Introduction

Chapter 1. About This Publication

This publication helps you install and configure IBM® Infoprint® Manager for the Windows® Operating System, hereafter called Infoprint Manager for Windows. 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. You should have already planned for and prepared your system for the installation of Infoprint Manager by performing the steps described in the book *IBM Infoprint Manager for Windows: Planning Guide*, G544–5716.

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 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.

The Infoprint Publication Library

For the most current information, please go to the IBM Printing Systems website at http://www.ibm.com/printers.

Infoprint Manager for AIX Publication Library

Infoprint Manager for AIX provides publications in PDF format on a CD-ROM supplied with the product. You can download PDF versions of these publications or order printed copies of these publications from IBM at the following website:

`http://www.elink.ibmlink.ibm.com/public/applications/publications/cgibin/pbi.cgi?CTY=US`

Notes:

1. There is a fee for the printed manuals.
2. You can use the form number specified for a publication to download a PDF version or order a printed version.

Here is the list of publications for Infoprint Manager for AIX:

- *IBM Infoprint Manager for AIX: Introduction and Planning Guide*, G544-5833. This publication gives an overview of Infoprint Manager for AIX, introduces its concepts, and helps you prepare to use it. It addresses migration from previous versions of the product. Finally, this publication explains the differences between the AIX and Windows version of Infoprint.

- *IBM Infoprint Manager for AIX: Getting Started*, G544-5817. This publication helps you install and configure IBM Infoprint Manager for AIX. It focuses primarily on server and client system software configuration.
- *Guidelines for Installing Infoprint Manager for AIX 4.1 in an HACMP Configuration*, G544-5818. This publication helps you install and configure HACMP with IBM Infoprint Manager for AIX. It also tells you how to use HACMP with IBM Infoprint Manager for AIX.
- *IBM Infoprint Manager for AIX: Procedures*, G544-5815. This publication describes the primary tasks necessary for setting up an Infoprint environment, submitting print jobs, scheduling jobs, and managing the print environment. This publication contains all the IBM Infoprint Manager for AIX procedures that are available as topics on the web in book format, including an index and table of contents for ease of retrievability.
- *IBM Infoprint Manager: Reference*, S544-5475. For print administrators, operators, and application programmers with the need to perform command-line functions, this publication describes the commands, utilities, transforms, attributes, and attribute values associated with Infoprint.
- *PSF Direct Network Configuration Guide for System/370*, S544-5486. For system administrators or network specialists responsible for configuring a system for Print Services Facility (PSF) Direct. PSF Direct is a function of IBM Infoprint Manager for AIX that allows another PSF program (PSF/VM, PSF/MVS, or PSF/VSE) to print remotely, using the SNA LU 6.2 protocol, on printers supported by Infoprint. The PSF program sends the print data stream directly to the Infoprint printer.
- *IBM PSF for AIX: AFP Upload Configuration Guide Using SNA Server/6000*, S544-5422. For system administrators, this publication describes how to configure AFP Upload on both AIX (client) and MVS (server) to send files to the JES spool on the MVS server, using a SNA Server/6000 protocol.
- *IBM PSF for AIX: AFP Upload Configuration Guide Using TCP/IP*, S544-5423. For system administrators, this publication describes how to configure AFP Upload on both AIX (client) and MVS (server) to send files to the JES spool on the MVS server, using a TCP/IP protocol.

Infoprint Manager for Windows Publication Library

Infoprint Manager for Windows provides publications in PDF format on a CD-ROM supplied with the product. You can download PDF versions of these publications or order printed copies of these publications from IBM at the following website:

http://www.elink.ibmlink.ibm.com/public/applications/publications/cgibin/pbi.cgi?CTY=US

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Here is the list of publications for Infoprint Manager for Windows:

- *IBM Infoprint Manager for Windows: Introduction and Planning Guide*, G544-5716. This publication gives an overview of Infoprint Manager for Windows, introduces its concepts, and helps you prepare to use it. It describes features of this product and compares its functions to those of IBM Print Services Facility for OS/2 (PSF for OS/2). It addresses migration from PSF for OS/2 at a high level. Finally, this publication explains the differences between the AIX and Windows version of Infoprint.

- *IBM Infoprint Manager for Windows: Getting Started*, G544-5717. This publication helps you install and configure Infoprint Manager for Windows. 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.
- *IBM Infoprint Manager for Windows: Procedures*, G544-5814. This publication contains all the Infoprint Manager for Windows procedures that are available as topics on the web in book format, including an index and table of contents for ease of retrievability.
- *IBM Infoprint Manager: Reference*, S544-5475. For print administrators, operators, and application programmers with the need to perform command-line functions, this publication describes the commands, utilities, transforms, attributes, and attribute values associated with Infoprint.

For information on the use of PSF Direct with Infoprint Manager for Windows, visit the Product Library page for Infoprint Manager for Windows at `http://www.ibm.com/printers/R5PSC.NSF/Web/impntrefinfo`.

Chapter 2. The Infoprint Publication Library

For the most current information, please go to the IBM Printing Systems website at http://www.ibm.com/printers.

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- *IBM Infoprint Manager for AIX: Procedures*, G544-5815. This publication describes the primary tasks necessary for setting up an Infoprint environment, submitting print jobs, scheduling jobs, and managing the print environment. This publication contains all the IBM Infoprint Manager for AIX procedures that are available as topics on the web in book format, including an index and table of contents for ease of retrievability.
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- *IBM Infoprint Manager for Windows: Procedures*, G544-5814. This publication contains all the Infoprint Manager for Windows procedures that are available as topics on the web in book format, including an index and table of contents for ease of retrievability.

- *IBM Infoprint Manager: Reference*, S544-5475. For print administrators, operators, and application programmers with the need to perform command-line functions, this publication describes the commands, utilities, transforms, attributes, and attribute values associated with Infoprint.

For information on the use of PSF Direct with Infoprint Manager for Windows, visit the Product Library page for Infoprint Manager for Windows at http://www.ibm.com/printers/R5PSC.NSF/Web/impntrefinfo.

Part 2. Getting Started with Server Systems

Chapter 3. 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 Infoprint Manager for Windows. You can find this information in *IBM Infoprint Manager for Windows: Introduction and Planning Guide*, G544–5716. 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 13 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. Under **Resources For** click **Infoprint Manager**. Under **Products** in the right hand navigation bar, click **Infoprint Manager for Windows**. Under **Product Resources** click **Product Library** and click the appropriate **PSF Direct Configuration Guide** for your system.

Note: When you use Infoprint Manager for Windows 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.

Reviewing components

Infoprint Manager for Windows consists of a number of different hardware and software components.

Note: Some components are included when you purchase Infoprint Manager for Windows, while optional components are additions to the base product that you can purchase and install through additional product CD-ROMs.

The Infoprint Manager for Windows Base Server CD-ROM (LCD4-5583) contains all software for installing an Infoprint Manager server on a Windows NT/Windows 2000 system, including the install program, server code and production components.

Table 1 lists the components that are included on the Common Clients CD-ROM that you receive when you purchase Infoprint Manager for Windows, and Table 2 on page 12 lists the separately orderable features that are available with Infoprint Manager for Windows.

Table 1. Contents of the Common Clients CD-ROM shipped with Infoprint Manager Server

Common Client	Description
Infoprint Select	Infoprint Select allows you to submit jobs to Infoprint Manager from word processors, spreadsheets, and other desktop applications. Its powerful command line also allows you to directly interface with Infoprint Manager and to specify AFP print options.

Table 1. Contents of the Common Clients CD-ROM shipped with Infoprint Manager Server (continued)

AFP print driver	The AFP print driver allows you to produce Advanced Function Presentation (AFP) output from desktop applications. Use the AFP print driver in conjunction with Infoprint Select to obtain a high degree of control over the appearance of your printed documents.
Lightning Fax Client for use only with the Infoprint Manager Fax Feature on AIX	The Lightning Fax Client provides fax configuration support for Infoprint Manager for AIX.
Infoprint Manager GUI	The Infoprint Manager GUI includes the Infoprint Manager Administration and Operation GUIs (Graphical User Interfaces) that are used for most of your day-to-day Infoprint Manager tasks. Both GUIs require the IBM Cross Platform Technologies for Windows (CPT) Version 2.0 Runtime Environment.
IBM Cross Platform Technologies (CPT) Version 2.0 Runtime Environment	The IBM Cross Platform Technologies (CPT) Version 2.0 Runtime Environment is used with the Infoprint Manager Administration and Operation GUIs and with Infoprint Manager Notifications.
Infoprint Manager Notifications Client	Infoprint Manager Notifications Client allows your Infoprint Manager Server to receive messages generated by an AIX or Windows Infoprint Manager server. Infoprint Manager Notifications Client requires the IBM Cross Platform Technologies (CPT) Version 2.0 Runtime Environment.
SAP Clients (AIX and Windows)	The SAP Client resides on an SAP system and a variety of UNIX (including AIX) and Windows servers so you can use the Infoprint Manager SAP Print Feature on either an Infoprint Manager AIX server or an Infoprint Manager Windows server.
AIX Client	The AIX Client allows users to enter Infoprint Manager commands and the **lp**, **lpr**, and **qprt** AIX print commands on the AIX command line for servers where Infoprint Manager for AIX has not been installed.
HP-UX Client	The HP-UX Client installs Infoprint Manager commands on an HP-UX system.
Sun Client	The Sun Client installs Infoprint Manager commands on a Sun Solaris system.
colorRipd for Infoprint Manager for AIX	**colorRipd** for Infoprint Manager for AIX allows you to print to the InfoColor 70 and the Infoprint Color 100 printers.

Table 2. Separately-Priced Features Available with Infoprint Manager for Windows

Infoprint Manager Features	Description
Infoprint DBCS Font Downloader Feature	The Infoprint DBCS Font Downloader is a utility for downloading double-byte PostScript fonts from a Macintosh to Infoprint Manager.

SAP Print Feature	A business enterprise can use the SAP Print Feature to plan, implement, and print to Infoprint Manager for AIX. The SAP Print Feature contains the SAP Transform for converting both Advanced Business Application Programming (ABAP) data and Output Text Format (OTF) data to AFP for printing.
Page Printer Formatting Aid Feature	Page Printer Formatting Aid (PPFA) allows users of IBM's Advanced Function Presentation (AFP) products to create form definitions and page definitions on a variety of different operating systems.
Workgroup Printer Attachment	This is required to install and use Infoprint-driven printers that print within a range of 0 to 49 pages per minute.
Low Speed Printer Engine Attachment	This is required to install and use Infoprint-driven printers that print within a range of 50 to 89 pages per minute.
Medium Speed Printer Engine Attachment	This is required to install and use Infoprint-driven printers that print within a range of 90 to 116 pages per minute.
High Speed Printer Engine Attachment	This is required to install and use Infoprint-driven printers that print 117 pages per minute or faster.

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 will assist you in performing the necessary TCP/IP configuration on all Windows systems.

Table 3. 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 3. 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.	__ yes __ 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 3. 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.	__ yes __ no
Enable LMHOSTS Lookup?	LMHOSTS files statically associate Windows system names to IP addresses.	__ yes __ no
Scope ID	The set of IP addresses assignable for a Windows domain is a called a *scope*.	
Enable IP Forwarding?	IP Forwarding allows data to be forwarded on a multi-homed system.	__ yes __ 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 Infoprint Manager for Windows 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 4. 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 4. 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, 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 4. Installing Infoprint Manager server software

Loading Infoprint Manager for Windows software is easy:

1. Log in as the Administrator user.
2. Insert the Infoprint Manager for Windows Base Server CD-ROM into your CD-ROM drive. The install program will start automatically.
3. Select the Install Infoprint Server button.
4. The license agreement displays. Click the **Accept** button.
5. You can choose to view a readme file before starting the install.
6. Follow the instructions on the installation screens to install the program. You may enter the destination directory and other necessary settings.
7. If prompted to do so, restart your Windows system. The Infoprint Manager service will start automatically.
8. Install the most recent service update if appropriate. Refer to "Accessing the latest information and fixes for Infoprint Manager for Windows" on page 19 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 Notifications Server
- IBM TCP/IP Network Port Monitor
- Infoprint Manager LPD service

IBM strongly recommends that you verify the connection from your Infoprint Manager for Windows server system to an actual destination. To do this, you must first create an actual destination as described in Chapter 9, "Creating actual destinations" on page 51.

Installing on non-English operating systems

Infoprint Manager for Windows 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 Console[1] 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**.

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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

You can find updated documentation and download fixes for Infoprint Manager for Windows from the IBM Printing Systems website at http://www.ibm.com/printers. Under **Resources For** click **Infoprint Manager**. Under **Products** in the right hand navigation bar, click **Infoprint Manager for Windows**. Under **Product Resources** click **Product Library** and locate the documentation you need. To download product fixes, select **Product updates** from the list in the right hand navigation bar, and follow the instructions provided.

In order to obtain additional support for Infoprint Manager for Windows, 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. 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 (for example, NT or 2000), name of the failing product (Infoprint Manager for Windows), and a brief description of the problem. Please have this information available when you place a call for technical assistance.

Chapter 5. 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 25 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 25 describes the procedure for installing the IBM 4159 that includes the following topics:
  - "Attaching the Bus/Tag Interface cable" on page 26
  - "Testing the card" on page 27
  - "Installing more than one IBM 4159 card" on page 29
  - "Testing the printer connection" on page 30

  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 Infoprint Manager for Windows 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.

Figure 1 on page 22 and Figure 2 on page 23 show the outlines of the IBM 4159 cards.
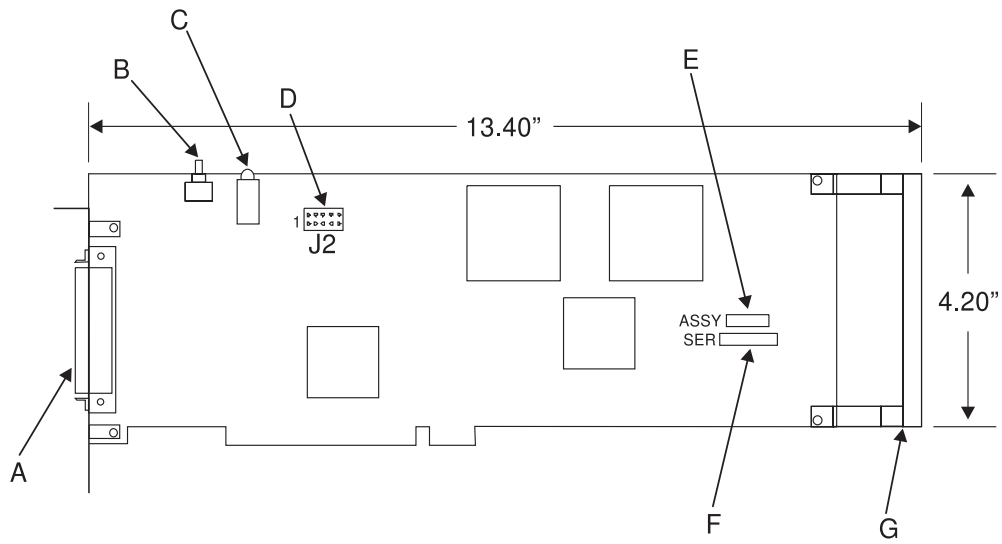
A 80–pin connector

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)
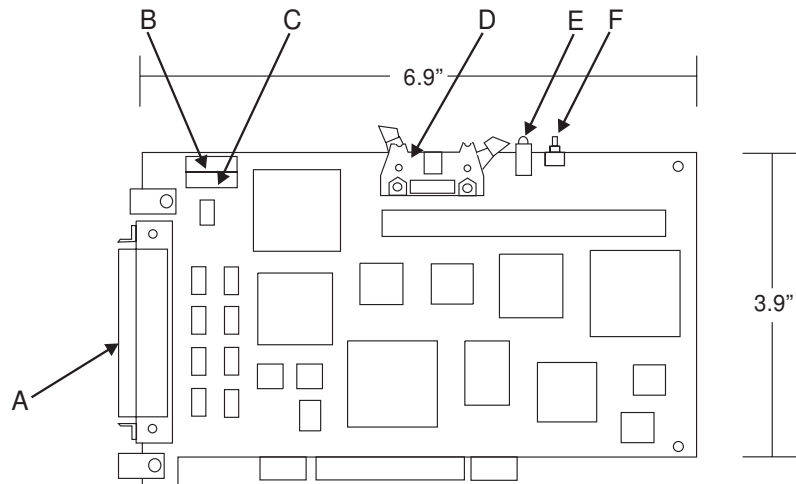
A 80–pin connector

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.
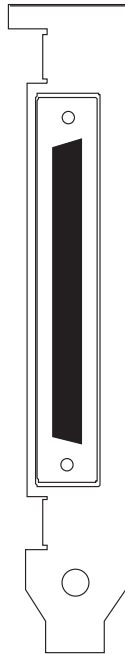
Figure 3. Front Panel with 80-Pin Connector

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 either your Infoprint AIX server or 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 Infoprint Manager for Windows 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 4, "Installing Infoprint Manager server software" on page 17. (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 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 27.

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, reseat 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.

Short cable

BUS

Conn
1

Serpentine
(Flip images)

Mini D80
pin connector

Fully shielded
95 ohm cable

TAG

Conn
2

Label

10.0 ft.
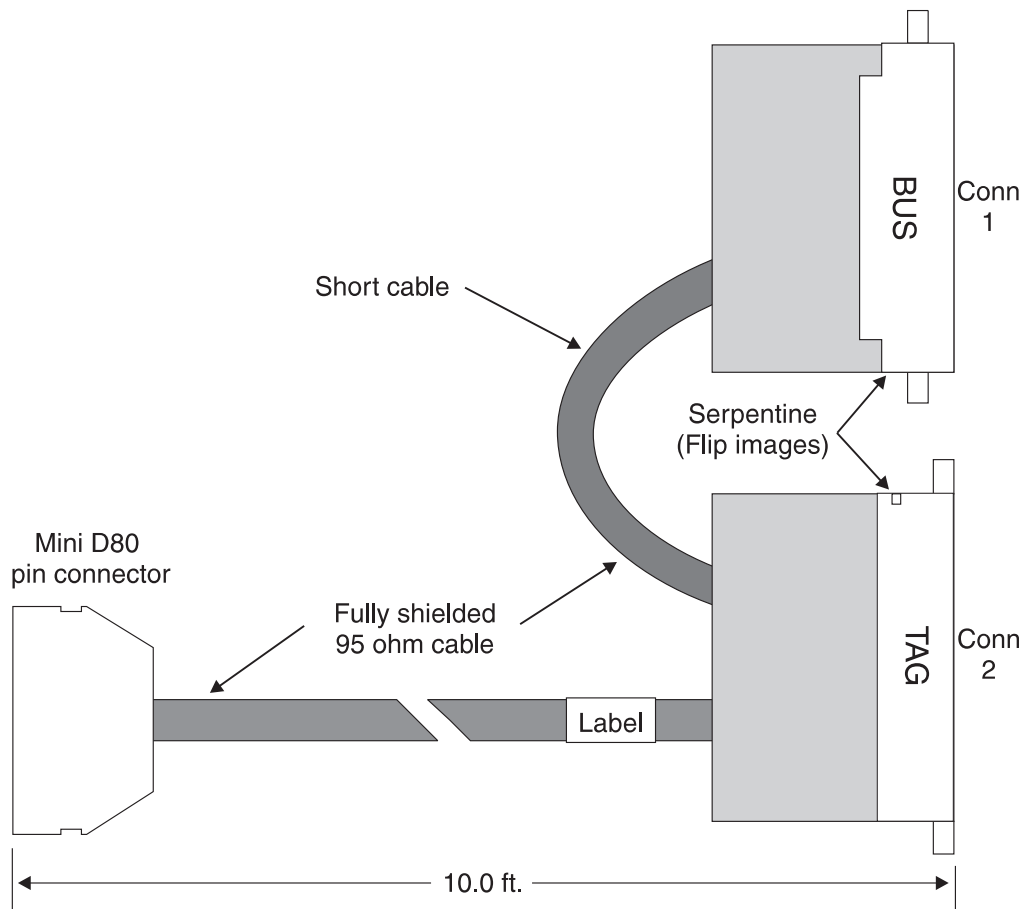
Figure 4. Bus/Tag Interface Cable Assembly

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 25.

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 reseat 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 25.

2. Test each card as instructed in "Testing the card" on page 27.

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 29 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 27, 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 29 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 6. 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 34 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 infomation 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**.

> **Note:** For more information on the IBM TCP/IP Port Monitor, see the readme file located in the <systemroot>\system32 directory; for example `C:\winnt\system32`.

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.

33

```
                  Server  │ Client
                          │
                          │  Network Connection to
                          │  Windows Gateway Printer
                          │
                          │        ┌─────────────┐
        ┌─────────────────┼────────│ To: Gate 1  │
        │                 │        └─────────────┘
        ▼                 │
  Windows Gateway Printer │          Select Printer
                          │
 Share Name: Gate 1       │
 ┌───────────────────────┐│  ┌───────────────────────┐
 │Printer Driver-for target Printer│  │Printer Driver-for target printer│
 ├───────────────────────┤│  ├───────────────────────┤
 │ Infoprint Port Monitor││  │ Infoprint Port Monitor│
 └───────────────────────┘│  └───────────────────────┘
        ┌────┐            │         ┌────┐
        │Port│            │         │Port│
        └────┘            │         └────┘
          │               │            │
          ▼               │            │
        ┌─────┐           │            │
        │ IPM │◄──────────┼────────────┘
        │Spool│           │
        └─────┘           │
          │               │
          ▼               │
  Passthrough Printer     │   ┌────┐
  (IPM-Actual Destination)│   │    │  Set by Administrator or User
 ┌────────────────────┐   │   └────┘
 │ ┌────────────────┐ │   │   ┌────┐
 │ │Generic Text/Only Driver│ │   │    │  Set by Infoprint Manager
 │ ├────────────────┤ │   │   └────┘
 │ │  Port Monitor  │ │   │
 │ └────────────────┘ │   │
 │    ┌────┐          │   │
 │    │Port│──────► 🖨 │   │
 │    └────┘          │   │
 └────────────────────┘   │
```

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 7, "Understanding Destination Support Systems

(DSS)" on page 37 and Chapter 9, "Creating actual destinations" on page 51 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.

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 7. 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). Infoprint Manager for Windows 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.

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 39.)

Passthrough DSS

The Passthrough DSS permits Infoprint Manager for Windows 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 59 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 8 on page 41 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 5 to see which type of destination fits your needs.

Table 5. 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, 5c and 6), 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			PCL4, PCL5, PCL5c, PPDS[1], IPDS
and your jobs are going to be sent to a printer:	through a Windows defined port	using a command such as lpr	that is IPP enabled	that is attached to your Infoprint Manager system in any of the ways listed in Table 8 on page 41.
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-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 6 on page 39 to see which type of destination fits your needs.

Table 6. 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 7 to see which type of destination fits your needs.

Table 7. 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 and PCL6	PS only
and the data stream that you send to your printer is:	IPDS	PCL4, PCL5, or PCL5c or PPDS[2]	PCL	PS
Create this kind of actual destination:	PSF (TCP/IP or channel)	PSF (other driver or command)	PSF (other driver or command) **OR** any of the destination types listed in Table 5 on page 38	One of the destination types listed in Table 5 on page 38.

Notes:

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. 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.

Note: If you have trouble connecting with a printer, you may want to increase the number of connection retries. To do this, you can edit the Registry on your Infoprint Windows server and set the **TcpMaxDataRetransmissions** TCP value to '8' instead of the default of '5'. To edit the registry, you should use the Microsoft document *TCP/IP and NBT Configuration Parameters for Windows (Q120642)*, which is available in an HTML version from their web site at **http://support.microsoft.com/**. You can access this document by searching on the document number *(Q120642)*.

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 either your Infoprint AIX server or 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.

Command

Before you create a PSF command actual destination, you must attach the printer device as specified by its documentation.

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.

Use Table 8 to determine the appropriate attachment type for PSF actual destinations.

Table 8. Selecting an Attachment Type for PSF Actual Destinations

If you are sending this data stream to the printer:	IPDS	IPDS	PCL4, PCL5, PCL5c or PPDS	PCL4, PCL5, PCL5c 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 may not use a PSF Other-driver destination with PSF Direct.	Command **Note:** You must use a Command destination with PSF Direct.

Chapter 8. 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 14, "Infoprint Manager GUI software" on page 87.

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

Other Destination tasks:
- Create an actual destination (email, fax, or print optimizer)
- Create or copy an actual destination (SAPconnect)
- Move a destination
- Delete a destination
- Create, copy, and modify job and document defaults
- Change logical destinations
- Check the status of a destination
- Enable a destination
- Disable a destination
- Resume a destination
- Stop or pause a destination
- Change the AFP resource information
- Change job batch
- Change job routing
- View or change destination properties
- Set or modify notification for a destination
- Set or modify notification for default jobs
- Force messages from a destination
- Filter on actual destinations
- Display actual destinations
- Monitor actual destinations
- Specify job batches ready for a destination
- Associate resource-context objects with an actual destination
- 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 destination can accept
- Change the job forms that the destination 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 an actual destination
- Delete (cancel) a job
- Delete and retain a job
- View a job log
- View a job ticket
- Search for a job
- View or change job properties
- Display queued or retained jobs in the server
- Request a specific actual destination for a job
- Set or modify notification for a job
- Monitor jobs
- List all jobs for an actual destination 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
- Check status of a queue
- Filter on queues
- Monitor queues
- Pause and resume a queue
- Keep failed jobs
- View or change queue properties

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 an actual destination

Miscellaneous tasks:
- Open windows (Main Window, Printers Window, Other Destinations Window, Logical Destinations Window, Jobs Window, Retained Jobs Window, Queues 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 14, "Infoprint Manager GUI software" on page 87.

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

Other Destination tasks:
- Check the status of a destination
- Enable a destination
- Disable a destination
- Resume a destination
- Stop or pause a destination
- Change job routing
- Display actual destinations
- Monitor destinations
- Change the job classes that the destination can accept
- Change the job forms that the destination 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 an actual destination
- Delete (cancel) a job
- Delete and retain a job
- View a job log
- View a job ticket
- 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 actual destination for a job
- Set or modify notification for a job
- Monitor jobs
- List all jobs for an actual destination 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, Other Destinations Window, Jobs Window, Retained Jobs Window, Queues 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 14, "Infoprint Manager GUI software" on page 87.

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 9. Creating actual destinations

For help in selecting the type of actual destination to create, see Chapter 7, "Understanding Destination Support Systems (DSS)" on page 37.

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 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 8, "Using the Infoprint interfaces" on page 43 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 53
- "PSF Channel printer" on page 55
- "PSF Command printer" on page 56
- "PSF Other-Driver printer" on page 58
- "Passthrough printer" on page 59
- "BSD printer" on page 62
- "IPP printer" on page 63

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 9. Default printer values using the wizard

Printer	Values
Infoprint 70	• 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 1116, 1120, Infoprint 1125, Infoprint 1130, Infoprint 1140, Infoprint Color 1220, Infoprint Color 1228	• 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	• 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 9. Default printer values using the wizard (continued)

Printer	Values
Infoprint 2000 AFP	• 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	• 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 10. PSF TCP/IP Printer Worksheet

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

Table 10. PSF TCP/IP Printer Worksheet (continued)

Wizard Prompt	Description	Value
Server	The Infoprint server that controls this actual destination. By default, 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 default to port 5001. The value you use here must match the value set at the printer.	
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 Infoprint 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 11. 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 Infoprint 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 29 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:

Table 11. PSF Channel Printer Worksheet (continued)

Wizard Prompt	Description	Value
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—>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.

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

Table 12. PSF Command Printer Worksheet

Wizard Prompt	Description	Value
Name	The name for the actual destination object (8 character limit). **Note:** This name is case-sensitive.	
Server	The Infoprint 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.	

Table 12. PSF Command Printer Worksheet (continued)

Wizard Prompt	Description	Value
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, lpr -S *serverName* -P *printerName*. **Note:** This command is case-sensitive.	
Data stream	The data stream expected by the printing device (for example, PCL5 or PCL 6).	
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 Infoprint server that contains the logical destination. **Note:** This name is case-sensitive.	
Queue	The queue that holds jobs destined for this actual destination. **Note:** This name is case-sensitive.	__ Default __ Other:
Note: Prior to using this worksheet to create your Infoprint Manager actual destination, you may need to use the standard Windows **Add Printer Wizard** to make the printer available.		

To create this type of printer, use the **Create Printer Wizard** in the Infoprint Manager Administration GUI. (On the menu bar, click **Printer—>Create—>PSF—>Command**.)

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 you create a PSF other-driver 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 other-driver printer, complete the following worksheet.

Table 13. 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 Infoprint 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; or if the printer is SNMP enabled, you can select **Set by SNMP 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.	

Table 13. PSF Other-Driver Printer Worksheet (continued)

Wizard Prompt	Description	Value
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).	
Logical destination	The logical destination that directs jobs to this actual destination. **Note:** This name is case-sensitive.	__ Default __ Other:
Logical destination's server	TheInfoprint 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 1116, 1120, 1125, 1130, 1140, 1145, 1220, or 1228), 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 14 on page 61 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 13, "Printing a test job" on page 83.

Table 14. 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.	
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 15. BSD Printer Worksheet

Wizard Prompt	Description	Value
Name	The name for the actual destination object. **Note:** This name is case-sensitive.	
Server	The Infoprint 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, `lpr -S` *serverName* `-P` *printerName*. **Note:** This command is case-sensitive.	
Data stream	The data stream expected by the printed device (for example, PCL5 or PCL6).	
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 Infoprint 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 16. IPP Destination Worksheet

Wizard Prompt	Description	Value
Name	The name for the actual destination object. This is the printer URI, 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.	

Table 16. IPP Destination Worksheet (continued)

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

To create this type of printer, use the **Create Printer Wizard** in the Infoprint Manager Administration GUI. (On the menu bar, click **Printer—>Create—>IPP**.)

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 50. The Infoprint Manager Management Console provides support for creating the following types of printers to be driven exclusively by PSF Direct:

- "PSF Direct Only TCP/IP Printer"
- "PSF Direct Only Channel Printer" on page 65
- "PSF Direct Only Non-IPDS Printer" on page 66

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 17. 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.	

Table 17. PSF Direct Only TCP/IP Printer Worksheet (continued)

Management Console Prompt	Description	Value
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 18. 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 29 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

This type of printer is a streamlined command 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 19. 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 (PCL4, PCL5, PCL5C, or PPDS).	
Command to Print	The command used to submit jobs to this destination. **Note:** This command is case-sensitive.	
Printer Memory	The amount of memory available on the printer itself.	

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

Important Note: All printers created through the Management Console are not visible to the server, and are not viewable using the Administration and Operations GUIs.

Chapter 10. 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 *Infoprint Manager for Windows: Introduction and 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: Introduction and Planning Guide*

- **MVS Download receiver**

  Receives print files and JCL parameters from the OS/390 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.

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 9, "Creating actual destinations" on page 51.

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 *Infoprint Manager for Windows: Introduction and 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 *Infoprint Manager for Windows: Introduction and Planning Guide* for instructions on collecting the information you need from your OS/2 system.

Table 20. 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 9, "Creating actual destinations" on page 51.

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 *Infoprint Manager for Windows: Introduction and 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 *Infoprint Manager for Windows: Introduction and Planning Guide* for instructions on collecting the information you need from your OS/2 system.

Table 21. 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 21. 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 69 for more information.	
Resources directory	The directory that the host receiver stores job resources in. Refer to "DPF working directories" on page 69 for more information.	

Table 22. DPF Host Receiver Class Set Up Worksheet

Receiver				
Class	**Copies**	**Start page**	**Disposition**	**Retention Period**
			__ • Print __ • Retain __ • Print then Retain	• ___ Forever • ___ Days • ___ Hours

Table 22. DPF Host Receiver Class Set Up Worksheet (continued)

			__ • Print __ • Retain __ • Print then Retain	• ___ Forever • ___ Days • ___ Hours
			__ • Print __ • Retain __ • Print then Retain	• ___ Forever • ___ Days • ___ Hours
			__ • Print __ • Retain __ • Print then Retain	• ___ Forever • ___ Days • ___ Hours
			__ • Print __ • Retain __ • Print then Retain	• ___ 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 22 on page 71. 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

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

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 reciever 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 9, "Creating actual destinations" on page 51.

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 75. Create your MVS Download receivers after you have reviewed the rest of the MVS Download configuration information.

Table 23. MVS Download Host Receiver Worksheet

Management Console Prompt	Description	Value
Port Number	The port assigned for communication with z/OS or OS/390. 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 OS/390 job parameters and printer control file settings. In sample destination control file supplied with Infoprint Manager, the value of OS/390 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 **o390dsubm.exe** is used.	
Retain command files	Indicate whether to save the command files for jobs that do not print correctly.	__ yes __ no
Process one file at a time	Indicate whether Infoprint Manager should wait for a previous job to complete before starting to process the next job.	__ yes __ no

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 Infoprint Manager for Windows: *Procedures* book, available on your Publications CD-ROM and on the IBM Printing Systems website.

Chapter 11. 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 16, "Preparing client systems for various job submission methods" on page 99.

Infoprint Select

Configuring your Infoprint Manager server to work with Infoprint Select

In order for Infoprint Select to submit print, fax, or email jobs to Infoprint Manager properly, you must configure each Infoprint Manager logical destination to accept jobs from Infoprint Select. Use the Infoprint Manager Administration GUI as described in the following procedure to configure each logical destination correctly. If you want to use the command line instead of the GUI, use the **pdset** command to set the **client-driver-names** 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. Information about security and how users can be authorized to Infoprint Manager is found in the topics "Managing Infoprint security with DCE" and "Managing non-DCE security for Infoprint Manager for AIX" in the *IBM Infoprint Manager for AIX: Procedures* manual.

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 client 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**.

Configuring for receiving notifications with Select on Windows
When you submit a print job using Infoprint Select, a default notification profile is
sent with the job. That notification profile sets the delivery method to either **email**
(if you have the Select message window running) or to **none** (if you don't have it
running). To use the email delivery method, you must set the smtp-server-host
attribute on your Infoprint Manager server to the IP address or DNS hostname of
the system that your SMTP mail server runs on. Refer to *Infoprint Manager:
Procedures* for instructions on setting up and managing notifications for Select.

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 114 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 folders" on page 115.

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 118 for information about downloading, configuring, and using the lprafp sample code package.

Chapter 12. 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 GUIs" on page 89.

   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 13. 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 50. 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 3. Getting Started with Client Systems

Chapter 14. 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 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 98, Windows NT, Windows 2000 or Windows XP system.The system does not need to have the Infoprint Manager server software installed. Follow the procedures in this section if you want to use Infoprint Manager GUI software to administer or control your Infoprint Manager server from a remote system.

Preparing to install the GUIs

Both Infoprint Manager GUIs require the IBM Cross Platform Technologies for Windows® (CPT) Version 2.0 Runtime Environment, IBM Build cn130-20020124. This is the only supported build level of the Runtime Environment for running the Infoprint Manager GUIs. If you have a previous version of the Infoprint Manager GUIs, you should uninstall them before you install the new Runtime Environment and the new GUIs.

Important Note:: If you plan to install one or both of the Infoprint Manager GUIs as well as Infoprint Select, be sure to install the GUI(s) first.

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

1. Type `java -fullversion` at an MS-DOS command line.
2. Verify that output from the command contains the following text:

   `IBM Build cn130-20020124`

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 currently installed version of the **IBM Runtime Environment** 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:

1. Insert the Infoprint Manager Common Clients CD-ROM into the drive. The install program will start automatically.
2. Select the **Install Products** button, and then select the Cross Platform Technologies button.

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.

3. Provide information as prompted by the installation program. When the installer asks if you want to install the Runtime Environment as the system Java Virtual Machine (JVM), answer **Yes**.

When the installation is complete, verify that you have the correct version of the Runtime Environment installed:

1. Type `java -fullversion` at an MS-DOS command line.
2. Verify that the output from the command contains the following text:

   `IBM Build cn130-20020124`

Installing the 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. Insert the Infoprint Manager Common Clients CD-ROM into the drive. The install program will start automatically.
2. Select the **Install Products** button, and then select the Operations GUI button. You will be asked to select a language for the installation.

   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.

3. Follow the instructions on the installation 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 server, do not change any of the selected check boxes.
   - You should install the DCE version of the Infoprint Manager GUIs only if you will be using them to work with the DCE version of Infoprint Manager for AIX.
   - The recommended version of the Infoprint Manager GUI offers the recommended view. You can also choose to use the **Basic** view by installing it from **Infoprint Manager Common Clients** CD-ROM. The installer asks if you want to place icons for either or both of the views on your desktop.
   - The Infoprint Manager Operations GUI requires approximately 9.1 MB of memory on your hard drive, whether you install one view or both.

Installing the 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. Insert the Infoprint Manager Common Clients CD-ROM into the drive. The install program will start automatically.
2. Select the **Install Products** button, and then select the Administration GUI button. You will be asked to select a language for the installation.

   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.
3. Follow the instructions on the installation 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 server, do not change any of the selected check boxes.
   - You should install the DCE version of the Infoprint Manager GUIs only if you will be using them to work with the DCE version of Infoprint Manager for AIX.
   - The recommended version of the Infoprint Manager GUI offers the recommended view. You can also choose to use the **Basic** view by installing it from **Infoprint Manager Common Clients** CD-ROM. The installer asks if you want to place icons for either or both of the views on your desktop.
   - The Infoprint Manager Administration GUI requires approximately 9.5 MB of memory on your hard drive, whether you install one view or both.

Starting the GUIs

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

Table 24. The Infoprint Manager GUI icons

Infoprint Manager Administration GUI	Infoprint Manager Operations GUI

Administration Infoprint |

Operations Infoprint |

If the icon is not on the desktop, click the Windows **Start** button and select **Programs—>IBM Infoprint Manager —> Administration Infoprint** to launch the Infoprint Manager Administration GUI or **Programs—>IBM Infoprint Manager—>Operations 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. 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, under **Resources For** click **Infoprint Manager**.
Under **Products** in the right hand navigation bar, click **Infoprint Manager for
Windows**. Under **Product Resources** click **Product Library**, then click the link for
Administrator Procedures.

When you first run the Infoprint Manager GUI, you must provide the host name
or IP address that the Infoprint Manager server communicates with client systems
through. You can specify a port number; the default port number is 6874 if you do
not specify one.

Using the basic view of the GUI

The basic view of the Infoprint Manager GUI is a simplified version of the GUI
that shows jobs assigned to printers without displaying queues. The basic printing
environment is generally appropriate for commercial print shops printing large
runs of image data (usually in PostScript or TIFF format). These jobs often include
variable data for direct mail programs. Users submit these jobs from a client
(Windows or Macintosh) personal computer using Infoprint Submit or a scanning
tool and related software.

In a basic printing environment, Infoprint Manager assigns jobs to printers through
early binding. Early binding is much like standing in a checkout line at a
supermarket. Once you pick a line, you "bind" yourself to it, no matter what
happens. Whether the cashier has a problem with the cash register (much like a
paper jam occurring in the physical printer) or the customer in front of you
requires a few price checks (much like adding new forms to the server), the only
way to change your position is to physically move to another line (much like
manually moving a job from one print queue to another).

If you have not installed the Print-on-Demand feature and want to use the basic
view of the Infoprint Manager GUI, complete the following steps in the standard
view of the GUI:
- Create a queue named **<*servername*>-default-queue**, where *<servername>* refers to
  the name of the server you are using, and attach up to ten printers.
  1. Select **Queue → Create**.
  2. Enter **<*servername*>-default-queue** in the **Name** field.
  3. Click **OK** to create the queue.
- Specify early binding as the default.
  1. Select the *<servername>*-default-queue.
  2. Select **Queue → Properties** to open the Queue Properties notebook.
  3. In the General tab, click **Yes** in the **Preassign jobs to actual destination** field.
  4. Click **OK** or **Apply** to make the change.

Note: By default, the basic server saves the output files from jobs converted to
raster image patterns. You can verify that this item is set correctly by
selecting **Server → Properties**. In the General tab of the Server Properties
notebook, make sure that the **Save ripped files** field is set to **Yes**.

Starting the special version of the Operations GUI

The special version of the Infoprint Manager Operations GUI allows you to lock the Operations GUI configuration file. This means that you can customize the Operations GUI configuration and then ensure that the configuration remains unchanged from session to session. The changes made during each session are not saved when the GUI is closed.

The special version is installed when the Infoprint Manager Operations GUI is installed. However, no icon will be installed on your desktop. To invoke the special version, type one of the following commands at the command line, depending on which version of the product you are using:

Table 25. Starting the special version of the operations GUI

Infoprint Manager for Windows	Infoprint Manager for AIX
operAdvs operBasics	ipguiadvs ipguibasics

Note: The commands pertaining to the Basic view of the Operations GUI are available only if you have purchased and installed the Print-on-Demand Feature of Infoprint Manager for AIX.

Uninstalling the 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: 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 the 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 15. Installing and using Infoprint Manager Notifications

Infoprint Manager Notifications is an application that you can use to receive messages about Infoprint objects, such as print jobs that you submit to Infoprint Manager, or destinations, queues, and servers that you manage. For example, Infoprint Manager can send you a message when a job you submit is finished printing so you know that you can pick it up, or it can let you know that there is something wrong with the printer and no jobs can be printed until someone resolves the problem.

Note: If you have installed Infoprint Select and use it to submit your print jobs to Infoprint Manager, messages about your jobs will continue to be sent to Select Notification, even if you install Infoprint Manager Notifications. You can still use Infoprint Manager Notifications to receive messages about other objects.

The Infoprint Manager notifications server and notifications client software are both automatically installed on the system that your Infoprint Manager server software runs on. In addition, you can install the notifications client on any other Windows or AIX system that is network-connected. Follow the procedures in this chapter if you want to install and use the Infoprint Manager Notifications client to receive messages from your Infoprint Manager server or just follow the directions in "Starting and using Infoprint Manager Notifications on an Infoprint AIX system" on page 96 to use the client on your Infoprint server.

For Infoprint Manager Notifications to work, one and only one Infoprint Manager Notification server must be running in your Infoprint Manager cell. (For information about handling the Notification server in multiple server Infoprint Manager environments, see "Multi-server environments" on page 97). Both Infoprint Manager for AIX and Infoprint Manager for Windows should automatically start a Notification server on port 8200, but you should verify it is running. Each Notification client defaults to receive notifications from server `notification` on port 8200.

If you ask the site network administrator to add `notification` as an alias for the hostname of the Infoprint server running the notification server to the site's Domain Name System (DNS) nameserver, the default settings in all the Notification clients work. If you ever move the Notification server to another host, you only need to update the notification alias in the DNS server for the default settings in all the Notification clients to work.

If you do not use a DNS server alias, you need to set up each Notification client to point to the hostname of the Infoprint server running the Notification server.

For the Infoprint Manager Notification client to receive notification messages from the Infoprint Notifications server, the delivery address setting in the Notification client must match the delivery address in the notification profile of the Infoprint Manager destination, job, or other object. Refer to "Using Infoprint Manager Notifications" in the book *Infoprint Manager for Windows: Procedures*, for information about setting up notification profiles.

Preparing to install Infoprint Manager Notifications on Windows

Infoprint Manager Notifications requires the IBM Cross Platform Technologies for Windows® (CPT) Version 2.0 Runtime Environment, Build level cn130–20020124. 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` at an MS-DOS command line.
2. Verify that output from the command contains the following text:

   `IBM Build cn130-20020124`
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 currently installed version of the **IBM Runtime Environment** 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:

1. Insert the Infoprint Manager Common Clients CD-ROM into the drive. The install program will start automatically.
2. Select the **Install Products** button, and then select the Cross Platform Technologies button.

   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.
3. Provide information as prompted by the installation program. When the installer asks if you want to install the Runtime Environment as the system Java Virtual Machine (JVM), answer **Yes**.

When the installation is complete, verify that you have the correct version of the Runtime Environment installed:

1. Type `java -fullversion` at an MS-DOS command line.
2. Verify that the output from the command contains the following text:

   `IBM Build cn130-20020124`

Installing the software on a Windows client

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

1. Insert the **Infoprint Manager Common Clients** CD-ROM into the drive.
2. The install program will start automatically.
3. Select **Install Products**, and then select **Infoprint Manager Notifications**.
4. Follow the instructions on the installation screens to install the program.

   There are two installation files to choose from:

   - If you are installing Infoprint Manager Notifications on a Windows system running in Traditional Chinese, click **Notifications – Traditional Chinese**

- If you are installing on any other language Windows system, use **All Other Languages**.

Installing the software on an AIX system

The Infoprint Notification client is installed on all Infoprint AIX servers with the **Infoprint Manager for AIX Base Server**, LCD4-1916. To install the Infoprint Notification client on an AIX system where you have not installed the Infoprint server, follow these steps:

1. Log onto AIX as **root**.
2. Insert the **Infoprint Manager Common Clients** CD-ROM, LCD4-1917, into the drive.
3. If this is the first time you are installing software on this AIX system, create the **/cdrom** file system.

   a. Start the System Management Interface Tool (SMIT).
      - To start the AIXwindows version of SMIT, enter the following command:
        ```
        smit cdrfs
        ```
      - To start the ASCII version of SMIT, enter the following command:
        ```
        smitty cdrfs
        ```

      The CDROM File Systems panel is displayed.

```
                          CDROM File Systems

Move cursor to desired item and press Enter.

  Add a CDROM File System
  Change / Show Characteristics of a CDROM File System
  Remove a CDROM File System

1=Help              F2=Refresh           F3=Cancel              F8=Image
F9=Shell            F10=Exit             Enter=Do
```
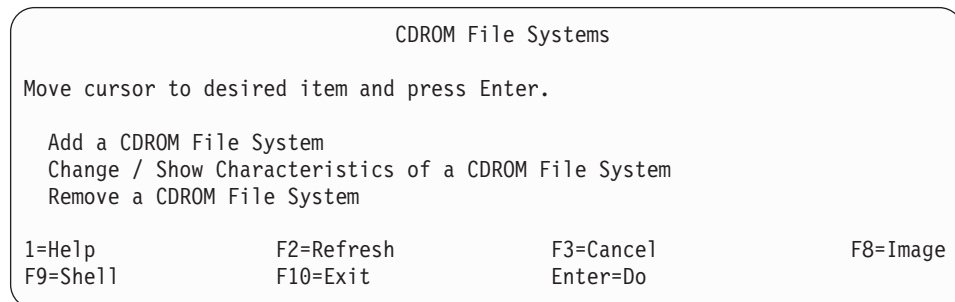
Figure 6. SMIT CDROM File Systems panel

   b. Select **Add a CDROM File System**.

```
                       Add a CDROM File System

Type or select values in entry fields.
Press Enter AFTER making all desired changes.

                                                    ^Entry Fields|
* DEVICE Name                                                        +
* MOUNT Point                                        ^|
  Mount AUTOMATICALLY at system restart?             no              +

1=Help              F2=Refresh           F3=Cancel              F4=List
F5=Reset            F6=Command           F7=Edit                F8=Image
F9=Shell            F10=Exit             Enter=Do
```
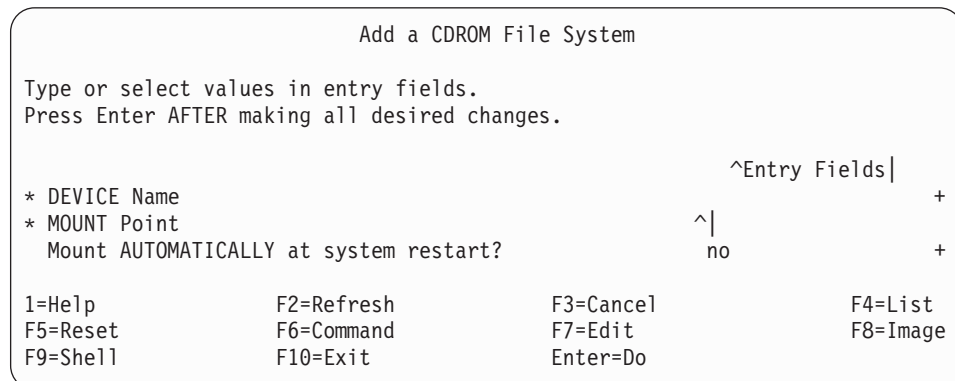
Figure 7. SMIT Add a CDROM File System panel

c. In the **DEVICE name** field, enter the identifier of your CD-ROM drive.

d. In the **MOUNT POINT** field, enter `/cdrom`.

e. Select **OK** (AIXwindows version) or press **Enter** (ASCII version).

f. Select **Cancel** (AIXwindows version) or press **F10** (ASCII version) to exit from SMIT.

4. To mount the CD-ROM, enter:

```
mount /cdrom
```

5. Enter the following command to install the notification client:

```
/cdrom/setup -y -n ServerName -l locale
```

where:

ServerName
        is the name of the host where the Infoprint server you want to communicate with (**PDHOST**) is running.

locale   is the locale of the notification client. The default is **en_US** (U. S. English). The **-l** *locale* flag is optional.

Starting and using Infoprint Manager Notifications on an Infoprint AIX system

To launch Infoprint Manager Notifications, type `notificationClient` on an AIX command line. The first time you start the program, it needs to connect to the notification server on the machine that your Infoprint Manager server runs on. If it does not succeed, Infoprint Manager displays the **Notification Client Properties** dialog. Check to see if the notification server hostname and port number match the ones the Notification server is using. If they do not, change them and click **OK**. If you need further assistance with the dialog, click **Help** to see the online help.

Note: If the site network administrator adds a notification alias for the hostname of the Infoprint server running the notification server to the site's Domain Name System (DNS) nameserver, the default settings will not have to be changed on each notification client.

Starting and using Infoprint Manager Notifications on a Windows client

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

The first time you start the program, it needs to connect to the notification server on the machine that your Infoprint Manager server runs on. If it does not succeed, the **Notification Client Properties** dialog will be displayed. Check to see if the notification server hostname and port number match the ones that your Notification server is using. If they do not, change them and click **OK**. If you need further assistance with the dialog, click **Help** to see the online help.

Note: If the site network administrator adds a notification alias for the hostname of the Infoprint server running the notification server to the site's Domain Name System (DNS) nameserver, the default settings will not have to be changed on each notification client.

Receiving messages

In order to receive messages, you must have Infoprint Manager Notifications not only installed, but running on your workstation. On both Windows and AIX systems, you can minimize the notification window if you do not want it open on your desktop. You will have to restore it when you want to check the messages that have arrived.

Tip: On Windows systems, you can put Infoprint Manager Notifications in your Startup folder, so it will automatically start whenever you log on.

You will receive certain messages without having to do anything else; for example, messages about print jobs you have submitted (including messages about the printers you send your jobs to) will come to you by default. Most of the messages you receive about jobs provide reasons for a job not printing. If you receive one of them, you can either resend the job or attempt to resolve the problem.

If you need to receive messages about other objects (for example, about printers that you manage), you can change the notification profile for those objects. The delivery address in your Infoprint Notifications **Settings** window must match the delivery address specified in one of the values of the notification profile of the object for which you want to receive messages. For more information about using Notifications, see "Using Infoprint Manager notifications" in *Infoprint Manager for Windows: Procedures*.

Multi-server environments

While the notification server defaults to starting automatically, you may have reason to stop and then start it on your own. For example, if you have installed multiple Infoprint servers, only one notification server (for each cell) should be enabled. To stop the server on an Infoprint Windows server, access the Management Console and select **File->Stop Server**. To stop or disable the server on an Infoprint AIX server, access the SMIT interface and take the following path: **Infoprint Printing System->Infoprint Utilities->Notification Daemon->Stop**. You can also stop and start the notification (**notifyd**) daemon from the command line on the AIX server by using the **stopnotd** and the **startnotd** utilities, respectively. For more information about these commands, see *Infoprint Manager: Reference*.

Uninstalling Infoprint Manager Notifications on Windows

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

   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 screen.

Uninstalling Infoprint Manager Notifications on AIX

To uninstall Infoprint Manager Notifications, do the following:

From the AIX command line, specify the following:
```
setup -Y
```

Infoprint Manager removes the Notification client from the AIX server.

Chapter 16. Preparing client systems for various job submission methods

Infoprint Select

Infoprint Select allows you to submit jobs from a Windows workstation to an Infoprint Manager destination (whether for print, fax, or e-mail jobs). Through Infoprint Select, you can submit jobs to Infoprint Manager from word processors, spreadsheets, and other desktop applications. You can print from applications, or from the DOS command line. The command line also allows you to interface more directly with Infoprint Manager and to specify AFP and other print options.

Installing Infoprint Select

Important Note: If you plan to install one or both of the Infoprint Manager GUIs as well as Infoprint Select, be sure to install the GUI(s) first.

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

1. Insert the Infoprint Manager Common Clients CD-ROM into the drive.
2. The install program will start automatically.
3. Select the Install Infoprint Manager Products button, and then select the Infoprint Select button.
4. Follow the instructions on the installation screens to install the program.
5. Choose the type of install based upon your installation:
   - A **typical install** if you only wish to use the **pdls**, **pdpr**, and **pdq** commands, or if you are using non-DCE Infoprint servers.
   - A **custom install** if you are running an Infoprint DCE server and want to print to a restricted printer or use more than the **pdpr**, **pdls**, and **pdq** Infoprint commands.

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

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)

Choosing the Right PPD

> If you plan to use Infoprint Select to print PostScript jobs to an AIX DSS (Infoprint Manager for AIX only), BSD DSS, or Passthrough DSS (Infoprint Manager for Windows only) 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. If you submit jobs to either the AIX, BSD, or Passthrough DSS printers, 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.

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 on Infoprint Manager for Windows or an AIX printer on Infoprint Manager for AIX).

> 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 98 systems

Adding your first Infoprint Select printer on Windows 98 systems: Follow this procedure to add an Infoprint Select printer to your Windows 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 **Select Printer Driver**, or if you want to use the PPDs, click **Browse**.
   b. Navigate to the directory where you installed Infoprint Select. (By default, this is c:\Infoprint\Select.) This directory holds the required ibmprt95.inf file.
   c. Click **OK**.
   d. Click **OK** to close the **Install from Disk** window.
6. Select 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, highlight **Infoprint (Infoprint Select)** and click **Next.**

   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. 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**.
10. 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. 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 the \windows\system 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.

Next, update your port settings for this new printer:

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. On the Details tab, click **Port Settings**. The **Infoprint Port** window displays.
6. In the **Print Server** field, select **Infoprint Manager** from the drop–down 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 **OK** to close the Properties window.

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 98 systems" on page 103.

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 98 systems: Before adding an Infoprint Select printer to your Windows 98 environment, you must first collect the information described in "Collecting required information" on page 100. Also, you must perform the appropriate server configuration as described in "Configuring your Infoprint Manager server to work with Infoprint Select" on page 77.

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 98 systems" on page 101.

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 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 98 systems" on page 101, but select the new Infoprint Select port (for example, Infoprint-2) in step 8. Remember to configure the new port in step 5.

Creating Infoprint Select printers on Windows ME systems

Adding your first Infoprint Select printer on Windows ME systems: Follow this procedure to add an Infoprint Select printer to your Windows ME 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\Select.) This directory holds the required ibmprt95.inf file.

   c. Click **OK**.

   d. Click **OK** to close the **Install from Disk** window.

6. Select 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, highlight **Infoprint (Infoprint Select)**.

   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. Select whether or not the printer should be the default. Click **Next**.

18. When you are asked **Would you like to print a test page?**, select **No** and click **Finish**.

    Note: The printer may 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. 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 the \windows\system 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.

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 ME 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 ME systems: Before adding an Infoprint Select printer to your Windows ME environment, you must first collect the information described in "Collecting required information" on page 100. Also, you must perform the appropriate server configuration as described in "Configuring your Infoprint Manager server to work with Infoprint Select" on page 77.

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 ME systems" on page 103.

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 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 ME systems" on page 103, 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 100.
- Configure the server as described in "Configuring your Infoprint Manager server to work with Infoprint Select" on page 77.

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. Click **Have Disk**.

    a. Click **Browse**.

    b. Navigate to the directory where you installed Infoprint Select. (By default, this is c:\Infoprint\Select.) This directory holds the required ibmprint.inf file.

    c. Click **OK**.

d. Click **OK** to close the **Install from Disk** window.

14. Select the printer driver you wish to install and click **Next**.

15. If the next dialog tells you that the printer driver already exists, select **Replace existing driver** and click **Next**.

16. 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**.

17. Confirm that the **Not shared** radio button is selected and click **Next**.

18. 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 100. Also, you must perform the appropriate server configuration as described in "Configuring your Infoprint Manager server to work with Infoprint Select" on page 77.

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 106.

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 106, 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 100.
- Configure the server as described in "Configuring your Infoprint Manager server to work with Infoprint Select" on page 77.

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. Click **Have Disk**.

    a. Click **Browse**.

    b. Navigate to the directory where you installed Infoprint Select. (By default, this is c:\Infoprint\Select.) This directory holds the required ibmprint.inf file.

    c. Click **OK**.

    d. Click **OK** to close the **Install from Disk** window.

6. On the next dialog, select the manufacturer and model of your printer and click **Next**.

7. If the driver for your printer is already installed, the **Use Existing Driver** dialog appears. Click **Next**.

8. 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**.

9. Select the **Do not share this printer** radio button and click **Next**.

10. When you are asked **Would you like to print a test page?** select **No** and click **Next**.

11. Click **Finish**.

12. From the Windows desktop, click the Windows **Start** button and select **Settings—> Printers**.

13. On the menu bar of the **Printers** window, click **File** and select **Server Properties**.

14. In the **Print Server Properties** window, click the **Ports** tab.

15. Highlight the **Infoprint Select** port that you want to configure and click **Configure Port**.
16. In the **Infoprint Port Configuration** window, find the **Print Server** field and select **Infoprint Manager** or **Infoprint Manager Server** from the dropdown list.
17. In the **Host Name** field, type the host name of your Infoprint Manager server.
18. 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.
19. Click **Refresh Printer Selection List**.
20. Select the appropriate printer from the list.
21. Click **OK**.
22. 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 100. Also, you must perform the appropriate server configuration as described in "Configuring your Infoprint Manager server to work with Infoprint Select" on page 77.

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 108.

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 6 of the procedure documented in "Adding your first Infoprint Select printer on Windows 2000 systems" on page 108, configuring the new port you just added.

Creating Infoprint Select printers on Windows XP systems

Adding your first Infoprint Select printer on Windows XP systems: Before adding an Infoprint Select printer to your Windows XP system, you must first perform these steps:

- Collect the information described in "Collecting required information" on page 100.
- Configure the server as described in "Configuring your Infoprint Manager server to work with Infoprint Select" on page 77.

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

1. From the Windows desktop, click **Start—>Printers and Faxes**.

2. Select to **Add a printer**. 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. Click **Have Disk**.

   a. Click **Browse**.

   b. Navigate to the directory where you installed Infoprint Select. (By default, this is c:\Infoprint\Select.) This directory holds the required ibmprint.inf file.

   c. Click **OK**.

   d. Click **OK** to close the **Install from Disk** window.

6. Select the manufacturer and model of your printer and click **Next**.

7. If the driver for your printer is already installed, the **Use Existing Driver** dialog appears. Click **Next**.

8. 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**.

9. Select the **Do not share this printer** radio button and click **Next**.

10. When you are asked **Would you like to print a test page?** select **No** and click **Next**.

11. Click **Finish**.

12. On the menu bar of the **Printers and Faxes** 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 XP 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 XP systems".

Adding an additional Infoprint Select printer on Windows XP systems: Before adding an Infoprint Select printer to your Windows XP environment, you must first collect the information described in "Collecting required information" on page 100. Also, you must perform the appropriate server configuration as described in "Configuring your Infoprint Manager server to work with Infoprint Select" on page 77.

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 XP systems" on page 110.

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

1. From the Windows desktop, click **Start—>Settings—>Printers—>Add Printer**.

2. Select to **Add a printer**. 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 **Add port** and highlight **Infoprint Select** from the pull-down list. Click **Next**.

5. In the dialog that opens, type a name for the new port, such as Infoprint-2, and click **OK**. (Use a name that no other port uses.)

6. Continue with step 6 of the procedure documented in "Adding your first Infoprint Select printer on Windows XP systems" on page 110, configuring the new port you just added.

Using Select from an application

The Infoprint Manager Select client is used to give you print access to Infoprint Manager controlled printers. Your system administrator defines a logical destination (a name for the printer or pool of printers for instance), and you install the appropriate Select client on your networked workstation.

When Select is installed and configured on your workstation, the Infoprint Manager destinations available to you will display in the list of printers you see when you are printing from familiar print applications. In the following example, a pool of printers named statements was created for a group of users. When a user prints from Netscape, for instance, Statements is now one of the printers that the user can select.
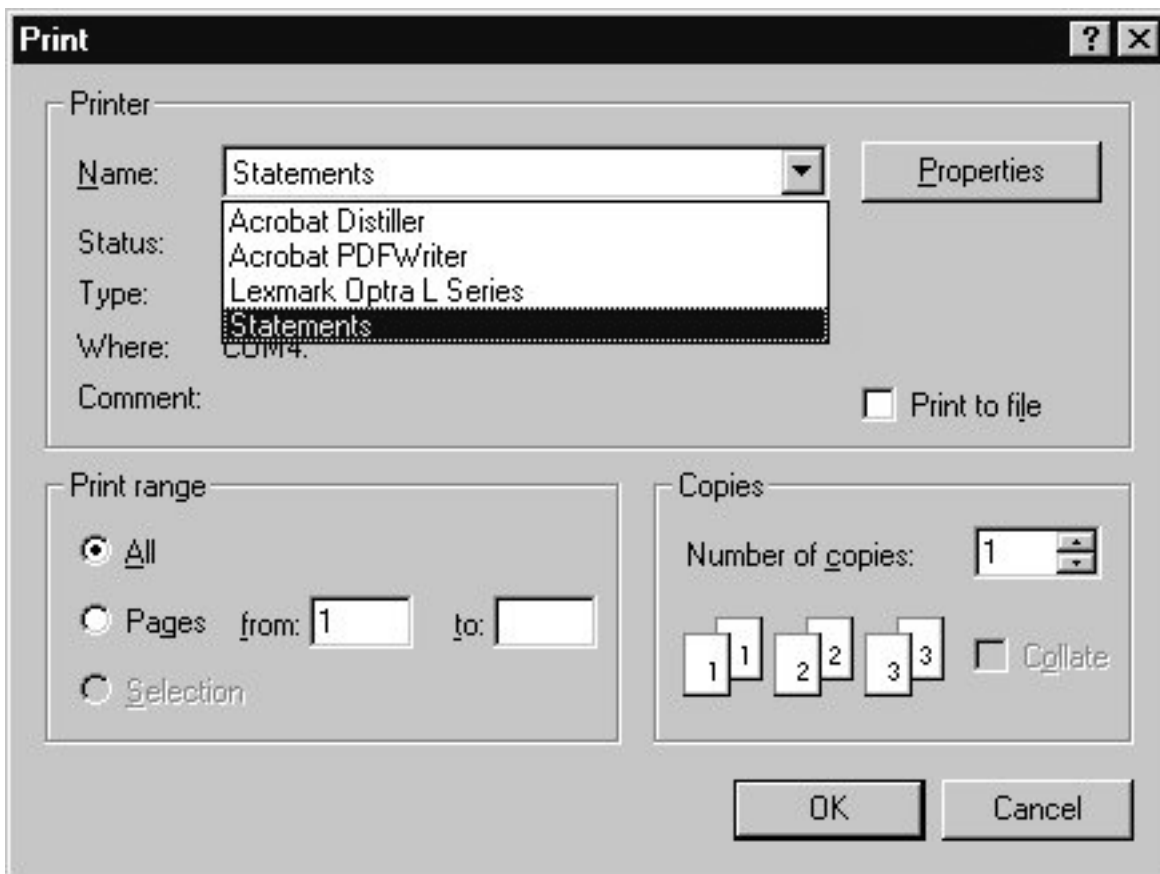
Commands you can use with Select

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, you can use several Infoprint commands that can be issued at a Command Prompt on the client system.

Infoprint Manager allows authorized users (normally all users) to use the following Infoprint commands:

pdls   Lists selected attribute values for a job, destination, or other Infoprint object

pdpr   Submits a job to a logical destination

pdq   Queries the status of selected jobs, of all jobs submitted to a logical destination, or of all jobs assigned to an actual destination

Infoprint Manager allows authorized users (the job owner is usually authorized) to use the following Infoprint commands:

pdmod
    Modifies the attributes of submitted jobs or of the documents in them

pdrm   Deletes jobs

Infoprint Manager allows only authorized users to use the following Infoprint commands:

pdaccount
    Collects summary accounting information for a specified time period in a comma delimited format about actual destinations on one or more servers. This information can be filed and imported into a spread sheet to calculate the cost of consumables, the usage rate of printers, the cost for each user, and so forth.

pdcreate
    Creates logical destinations, queues, actual destinations, default jobs, default documents, media, auxiliary sheets, and resource contexts

pdclean
    Removes all jobs from a server, logical destination, queue, or actual destination

pddelete
    Deletes servers, logical destinations, queues, actual destinations, default jobs, default documents, media, auxiliary sheets, resource contexts, and jobs

pddisable
    Prevents destinations from accepting jobs and logs from logging

pdenable
    Enables destinations to accept jobs and logs to log

pdpause
    Pauses a job, actual destination, queue, or all the queues and actual destinations in a server

pdpromote
    Advances a job to the head of the queue

pdreorder
Reassigns a job to an actual destination or to the unassigned jobs area in the same server or in another server, and allows you to schedule it immediately before or after another job

pdresubmit
Resubmits a job, all the jobs submitted to a logical destination, or all the jobs in a queue to another logical destination

pdresume
Enables paused objects to resume operation

pdset Sets or changes the values of attributes describing Infoprint objects

pdshutdown
Stops servers or actual destinations

pdspace
Backspaces or forward spaces a PSF physical printer

Note: For more information about Infoprint commands and attributes, refer to *Infoprint Manager: Reference*, or to the man pages. Command man pages have the same name as the command.

Querying destination attributes
To determine whether the logical destination london is ready to receive jobs, enter:

```
pdls -c destination -r "destination-state" london
```

Submitting a job
To submit the file myjob.ps to the logical destination london and request two-sided printing, enter:

```
pdpr -d london -x "sides=2" myjob.ps
```

Note: The *Infoprint Manager: Reference* lists all the attributes and values that you can specify on the **pdpr** command.

Querying jobs
To query all the jobs that you submitted to logical destination london, enter:

```
pdq -d london
```

Infoprint returns information similar to the following:

```
                                      Intervening Destination Destination
Job ID               Name      State    Jobs       Requested   Assigned
--- ---------------- --------- -------- ----------- ----------- -----------
13  Serv1:1104221000 report.ps printing 0           london      caxton
14  Serv1:1104221023 myjob.ps  pending  8           london      morris
```

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 folders

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 host 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.

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 Build Level 9 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.

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.

Install and configure lprafp for Windows from the Web

For Windows operating system clients, the **lprafp** sample code package is available for free download from the IBM Printing Systems website at http://www.ibm.com/printers. Use this procedure to locate and install the package.
1. Navigate to http://www.ibm.com/printers in your web browser.
2. Under **Resources for**, click **Infoprint Manager**.
3. On the Infoprint Manager Family Home Page, click **Infoprint Manager for Windows**.
4. On the Infoprint Manager for Windows Home Page, select **Downloads** from the list under **Product Resources**.
5. On the Downloads page, find lprafp and click to download.
6. Use a zip utility to unzip the package.
7. Open the **readme.txt** file and follow the instructions for installing the package on a Windows system.

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; 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 17. Setting up 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 for Windows Common Clients 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.

Installing the AFP driver files

1. Insert the Infoprint Manager for Windows Common Clients CD-ROM into your CD-ROM drive. The install program will start automatically.
2. Click the **Install Infoprint Manager Products** button, and then select the **AFP Print Driver** button.
3. Select the appropriate operating system and language.
4. The License Agreement displays. Click the **Accept** button, then click Next.
5. Follow the instructions to unpack the files into the desired directory.

Setting up the AFP driver

Once the files have been installed, you must complete the process of configuring 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.

Setting up the Infoprint AFP Driver on a Windows 98/ME 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 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 with this driver 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.

8. Select **File** on the list of available ports that is displayed. Then select **Next**.

9. An entry field allows you to change the driver name (not recommended). You can also indicate whether this driver should be the default. Click **Next**.

10. Do not print a test page and click **Next**.

11. Click **Finish**.

12. From the desktop, click the Windows **Start** button and select **Settings –> Printers**.

13. In the Printers window, highlight the icon for the driver you just installed. Then select **File —>Properties.**

14. Use the tabs in the **Properties** notebook to set paper size, orientation, and other settings you want and then select **OK**. Exit to the desktop.

15. If you are printing on a VM or MVS host, upload the AFP Reblocking Program to your host system. Instructions for uploading files are in the IBM AFP Printer Driver help file (odafp.hlp), which is located in the directory that you copied the AFP driver files into.

Setting up 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** *nnn*, where *nnn* 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**.

Setting up 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.

Setting up the Infoprint AFP Driver on a Windows XP system

1. Click the Windows **Start** button and select **Printers and Faxes**.
2. In the Printers window, click the **Add a printer** selection 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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Version 2 Release 1

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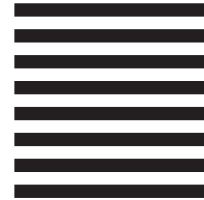Fold and Tape   **Please do not staple**   Fold and Tape

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