

IBM Infoprint Manager for Windows NT and
Windows 2000



Getting Started

Version 1 Release 1

IBM Infoprint Manager for Windows NT and
Windows 2000



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Version 1 Release 1

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Contents

Figures v

Tables vii

About This Publication ix

Audience ix

Most Recent Information ix

Part 1. Getting Started with Server Systems 1

Chapter 1. Preparing to Install Infoprint Manager Software 3

Infoprint Manager CD-ROMs. 3

Optional CD-ROMs 4

Configuring TCP/IP. 4

Planning for a LAN Connection 4

Planning for a Printer Network Connection 6

Preparing to Reinstall 7

Chapter 2. Installing Infoprint Manager Server Software 9

Installing on Non-English Operating Systems 9

Specifying Your Language for the Infoprint Manager Server with the Windows 2000

Multi-Language Version System 10

Accessing the Latest Information and Fixes for

Infoprint Manager for Windows NT and Windows

2000 11

Chapter 3. Installing Necessary Hardware. 13

The IBM 4159 Model 001 S/390 Parallel Channel Emulator Card 13

What Comes with the IBM 4159 Card 16

Preparing to Install the IBM 4159 PCI Card. 17

Installing the IBM 4159 Model 001 S/390 Parallel Channel Emulator Card 17

Chapter 4. Understanding Printer Drivers, Port Monitors, Windows Gateway Printers, and Passthrough Printers 23

Windows Gateway Printers 24

Passthrough Printers 25

Chapter 5. Understanding Destination Support Systems (DSS) 27

Selecting a DSS for Printing from PC-based Applications or a Host System Using IP Printway 28

Selecting a DSS for Printing from Host Systems 28

Using PSF Direct 28

Selecting a DSS for Printing from Both PC-based Applications and Host Systems. 29

Understanding Attachment Types for PSF Actual Destinations 29

Chapter 6. Using the Infoprint Interfaces 33

Tasks you perform using the Infoprint Manager Administration GUI 33

Installing or Starting the Infoprint Manager Administration GUI 35

Tasks you perform using the Infoprint Manager Operations GUI 35

Installing and starting the Infoprint Manager Operations GUI 37

Tasks you perform using the Management Console 37

Starting the Infoprint Manager Management Console. 38

Chapter 7. Creating an Actual Destination 39

Creating a Destination Driven by Infoprint Manager 39

PSF TCP/IP Printer. 39

PSF Channel Printer 41

PSF Command Printer. 42

PSF Other-Driver Printer 44

Passthrough Printer 45

BSD Printer 47

IPP Printer 49

Creating a Host-Driven Destination 50

PSF Direct Only TCP/IP Printer 50

PSF Direct Only Channel Printer 51

PSF Direct Only Non-IPDS Printer. 51

PSF Direct Host Receiver 52

MVS Download Receiver 52

Using Infoprint Gateways 53

Chapter 8. Synchronizing Infoprint Manager with an Infoprint 4000 55

Chapter 9. Printing a Test Job. 57

Part 2. Getting Started with Client Systems 59

Chapter 10. Installing Infoprint Manager GUI Software 61

Preparing for the Infoprint Manager GUI 61

Installing the Software. 62

Installing the Infoprint Manager Operations GUI 62

Installing the Infoprint Manager Administration GUI 63

Starting the Infoprint Manager GUIs 65

Uninstalling the Infoprint Manager GUIs 66

Chapter 11. Installing Infoprint Manager Notifications 67

Preparing for Infoprint Manager Notifications . . . 67
Locating Software on the CD-ROM 68
Installing the Software. 68
Starting Infoprint Manager Notifications. 68
Uninstalling Infoprint Manager Notifications . . . 68

Chapter 12. Installing Infoprint Select 71

Understanding Commands 71
Installing Infoprint Select from a CD-ROM 72
Installing DCE Support for Infoprint Select with an Infoprint Manager for AIX Server 72
Configuring your Infoprint Manager Server to work with Infoprint Select 73
Creating Infoprint Select printers 74
 Collecting Required Information 74
 Creating Infoprint Select printers on Windows 95/98 systems 75
 Creating Infoprint Select printers on Windows NT systems 78
 Creating Infoprint Select printers on Windows 2000 systems 80

Chapter 13. Using the Infoprint Manager Line Printer Daemon (LPD) . . 83

Submitting Print Jobs through the Infoprint Manager LPD 83
 Preparing to Submit Print Jobs 83
 Submitting Print Jobs 84

Chapter 14. Setting Up Gateway Printing 85

Adding a Windows gateway printer to a workstation 85
Adding an IPP Gateway printer to a workstation. . 85

Chapter 15. Installing the AFP Driver 87

Unpacking AFP driver files 87
Installing the AFP driver 88
 Installing the Infoprint AFP Driver on a Windows NT system 88
 Installing the Infoprint AFP Driver on a Windows 2000 system 88

Notices 91

Licenses 91
Trademarks 91
EuroReady 92
Year 2000 Ready. 92

Index 93

Figures

- | | | | |
|---|----|--|----|
| 1. IBM 4159 Model 001 S/390 Parallel Channel Emulator Card Diagram (Long Card) | 14 | 3. Front Panel with 80-Pin Connector | 16 |
| 2. IBM 4159 Model 001 S/390 Parallel Channel Emulator Card Diagram (Short Card) | 15 | 4. Bus/Tag Interface Cable Assembly | 19 |
| | | 5. Infoprint Manager print data stream flow | 24 |

Tables

1. LAN TCP/IP Configuration Worksheet	4	8. PSF Channel Printer Worksheet	41
2. Printer Network TCP/IP Configuration Worksheet	6	9. PSF Command Printer Worksheet	43
3. Selecting a DSS for Printing from PC-based Applications	28	10. PSF Other-Driver Printer Worksheet	44
4. Selecting a DSS for Printing from Host Systems Using PSF Direct	28	11. Passthrough Destination Worksheet	46
5. Selecting a DSS for Printing from Both PC-based Applications and Host Systems	29	12. BSD Printer Worksheet	47
6. Selecting an Attachment Type for PSF Actual Destinations	30	13. IPP Destination Worksheet	49
7. PSF TCP/IP Printer Worksheet	40	14. PSF Direct Only TCP/IP Printer Worksheet	50
		15. PSF Direct Only Channel Printer Worksheet	51
		16. PSF Direct Only Non-IPDS Printer Worksheet	51
		17. PSF Direct Host Receiver Worksheet	52
		18. MVS Download Host Receiver Worksheet	53
		19. The Infoprint Manager GUI icon	65

About This Publication

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

Audience

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

Most Recent Information

This document is available on the World Wide Web from the IBM Printing Systems website at <http://www.ibm.com/printers>.

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

Part 1. Getting Started with Server Systems

Chapter 1. Preparing to Install Infoprint Manager Software

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

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

If you plan to use PSF Direct to print from remote host systems (such as MVS™, AS/400®, or OS/390®), consult the *PSF Direct Configuration Guides* to establish communication between this Windows NT/Windows 2000 system and remote hosts. The *PSF Direct Configuration Guides* are available on the World Wide Web at <http://www.ibm.com/printers>. On the Printing Systems homepage, click Infoprint Manager under **Resources for**, then click Infoprint Manager for Windows NT and Windows 2000 on the Infoprint Manager Family homepage. Select **Product Library** from the drop-down list in the right hand navigation bar, and click the appropriate **PSF Direct Configuration Guide** for your system.

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

Infoprint Manager CD-ROMs

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

IBM Infoprint Manager for Windows NT and Windows 2000: Server

Contains all software for establishing an Infoprint Manager server on a Windows NT/Windows 2000 system. This includes the server software itself as well as the Infoprint Manager graphical user interfaces (GUIs) for administering and overseeing print operations from remote systems and the Infoprint Manager Notifications program, which enables remote systems to receive messages from the Infoprint Manager server. The IBM TCP/IP Port Monitor is included on the Server CD-ROM (Version 1.6 for Windows NT and Version 2.0 for Windows 2000), and is installed when you apply PTF UR52402 (December 2000). If you already have the IBM TCP/IP Port Monitor installed, the Infoprint Manager installer checks what level it is. If yours is an older level, it will be updated.

IBM Infoprint Manager: Common Client

Contains the following software: Infoprint Select, which enables job submission from remote clients to the Infoprint Manager server; the Infoprint Manager GUI for administering and overseeing print operations from remote systems; Infoprint Manager Notifications, which enables remote systems to receive messages from the Infoprint Manager server; and the AFP™ Printer Driver for Windows; colorripd, which is used to manage the color rasterized image processing for the InfoColor 70 and the Infoprint Color 100; the IBM Cross Platform Technologies for Windows

(CPT) version 2.0 Runtime Environment, which must be installed if you want to use the Infoprint Manager GUIs or Infoprint Manager Notifications; the Lightning Fax client, which is only supported on Infoprint Manager for AIX.

IBM Infoprint Manager for Windows NT and Windows 2000: Publications

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

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

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

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

Optional CD-ROMs

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

The Page Printer Formatting Aid (PPFA) for Windows optional feature of Infoprint Manager for Windows NT and Windows 2000 enables users to create AFP printing resources called page definitions and form definitions. These definitions specify how pages of printed output are formatted and how the printer should handle the physical sheets of paper. Using PPFA, you can turn unformatted S/390 or ASCII line data into highly effective documents without making changes to the application program.

Configuring TCP/IP

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

Planning for a LAN Connection

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

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

Table 1. LAN TCP/IP Configuration Worksheet

Control Panel Prompt	Description	Value
Computer Name	The (NetBIOS) name of this computer on the Windows network.	
Domain/Workgroup	The group of Windows computers to which this computer belongs.	

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

Control Panel Prompt	Description	Value
Adapter	The physical card used to connect this system to the network. An appropriate driver for this card may need to be added.	
Obtain IP address from DHCP server?	The Dynamic Host Configuration Protocol (DHCP) provides a new IP address for this system each time it is restarted. If DHCP is not in use, a static IP address must be assigned.	<input type="checkbox"/> yes <input type="checkbox"/> no Note: It is strongly recommended that you specify no for DHCP.
IP Address	A dotted-decimal address (for example, 9.99.178.17) statically assigned to this system. Not needed if DHCP is in use.	
Subnet Mask	A dotted-decimal number (for example, 255.255.255.0) indicating which part of the IP address identifies the network and which part identifies the system. Not needed if DHCP is in use.	
Default Gateway	The system used by default to allow this network to communicate with other networks. Not needed if DHCP is in use.	
DNS Host Name	The (Internet) name of this system recognized by the Domain Name System (DNS). If possible, this name should be the same as the Windows computer name.	
DNS Domain	The Internet domain to which this computer belongs.	
DNS Service Search Order	An ordered list of IP addresses of DNS servers. These systems are queried to resolve Internet names into IP addresses.	
Domain Suffix Search Order	An ordered list of TCP/IP domains to search for a given host name.	
Primary WINS Server	The first Windows Internet Name Service (WINS) system to query to resolve a Windows (NetBIOS) system name into an IP address.	
Secondary WINS Server	The second WINS system to query.	

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

Control Panel Prompt	Description	Value
Enable DNS for Windows Resolution?	DNS may be used to resolve Windows (NetBIOS) names into IP addresses.	<input type="checkbox"/> yes <input type="checkbox"/> no
Enable LMHOSTS Lookup?	LMHOSTS files statically associate Windows system names to IP addresses.	<input type="checkbox"/> yes <input type="checkbox"/> no
Scope ID	The set of IP addresses assignable for a Windows domain is called a <i>scope</i> .	
Enable IP Forwarding?	IP Forwarding allows data to be forwarded on a multi-homed system.	<input type="checkbox"/> yes <input type="checkbox"/> no

Planning for a Printer Network Connection

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

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

Table 2. Printer Network TCP/IP Configuration Worksheet

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

Preparing to Reinstall

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

Chapter 2. Installing Infoprint Manager Server Software

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

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

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

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

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

IBM strongly recommends that you verify the connection from your IBM Infoprint Manager for Windows NT and Windows 2000 server system to an actual destination. To do this, you must first create an actual destination as described in “Chapter 7. Creating an Actual Destination” on page 39.

Installing on Non-English Operating Systems

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

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

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

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

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

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

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

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

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

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

Chapter 3. Installing Necessary Hardware

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

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

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

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

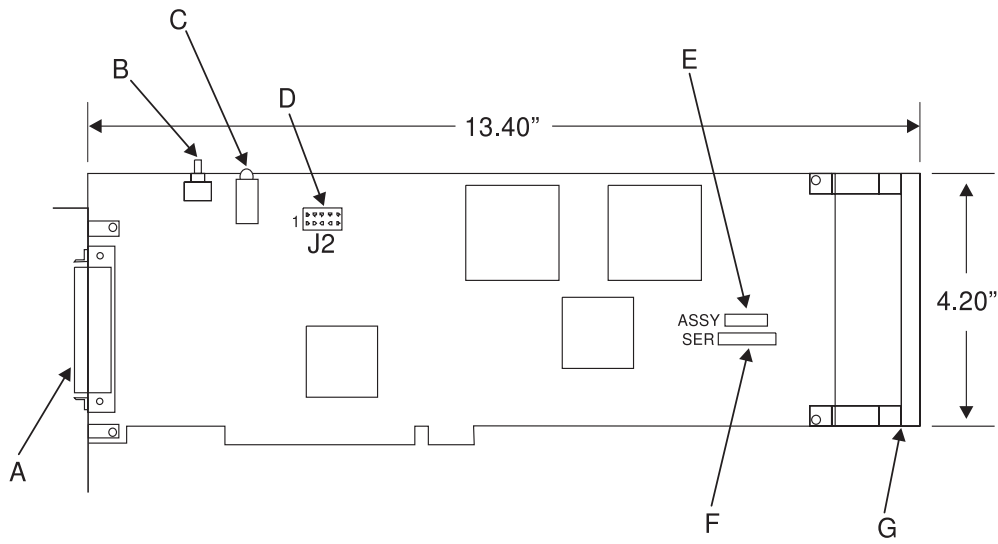
- “Preparing to Install the IBM 4159 PCI Card” on page 17 describes the steps to recreate the IBM 4159 diagnostics diskette if it has been misplaced.
- “Installing the IBM 4159 Model 001 S/390 Parallel Channel Emulator Card” on page 17 describes the procedure for installing the IBM 4159 that includes the following topics:
 - “Attaching the Bus/Tag Interface cable” on page 18
 - “Testing the Card” on page 19
 - “Installing More Than One IBM 4159 Card” on page 21
 - “Testing the Printer Connection” on page 22

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

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

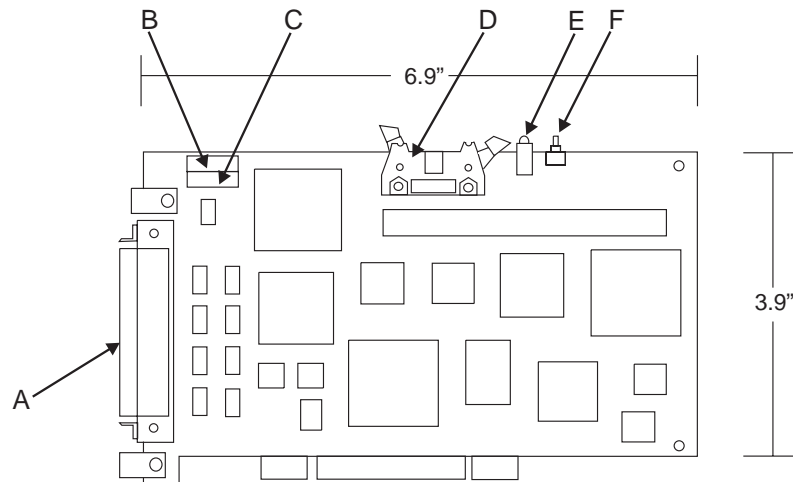
The IBM 4159 consists of a single full-length PCI board and a bus/tag interface cable. It contains all logic necessary to drive the bus/tag channel. The IBM 4159 card comes in two sizes: long and short. While these cards may appear to be different, they are functionally identical. The short version of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

Figure 1 on page 14 and Figure 2 on page 15 show the outlines of the IBM 4159 cards.



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

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



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

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

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

80 Pin
Connector

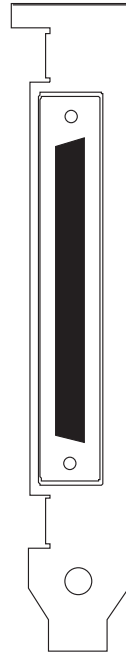


Figure 3. Front Panel with 80-Pin Connector

The IBM 4159 has the following limitations:

- Each IBM 4159 supports at most 8 printers or one IBM Infoprint 4000.
- You should plan to install the IBM 4159 in a long PCI slot. As a result, the number of long PCI slots you have available in your Windows NT/Windows 2000 system determines how many IBM 4159 cards you can install, up to a maximum of 8 cards. Many computers have fewer than 8 long PCI slots.
- The IBM 4159 supports data streaming at either 3.0 Mb per second or 4.5 Mb per second. All printers connected to a computer must be configured for the same data streaming rate.
- The IBM 4159 supports only block multiplex data transfers.

What Comes with the IBM 4159 Card

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

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

Preparing to Install the IBM 4159 PCI Card

Before attempting to install the IBM 4159, you must install the Infoprint Manager server code onto the Windows NT/Windows 2000 system as described in “Chapter 2. Installing Infoprint Manager Server Software” on page 9. (If you have only channel-attached printers in your environment, you must install the IBM 4159 prior to performing any object configuration within Infoprint Manager.)

Creating a Diagnostics Diskette for the IBM 4159

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

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

You may now use this diagnostics diskette to diagnose your IBM 4159 card as described in “Testing the Card” on page 19.

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

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

DANGER

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

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

Notes:

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

5. For the selected slot, remove the metal bracket plate located on the back of the PC.
6. Slide the IBM 4159 into the slot and push firmly to ensure the contact pins are well seated. **Never** force the board into place.
CAUTION:
Proper static control precautions must be taken to avoid damage to the circuit board.
7. When the card is seated, replace the bracket screw to ensure proper grounding.
8. Replace the covers on the server/host PC.
9. Plug in the server/host PC.
10. Place the Service Label that came with the IBM 4159 in a conspicuous place that will be easy to find in the future, so that the information is close at hand if you need to call service. We recommend attaching this label to the side of your server or some other obvious location.

Attaching the Bus/Tag Interface cable

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

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

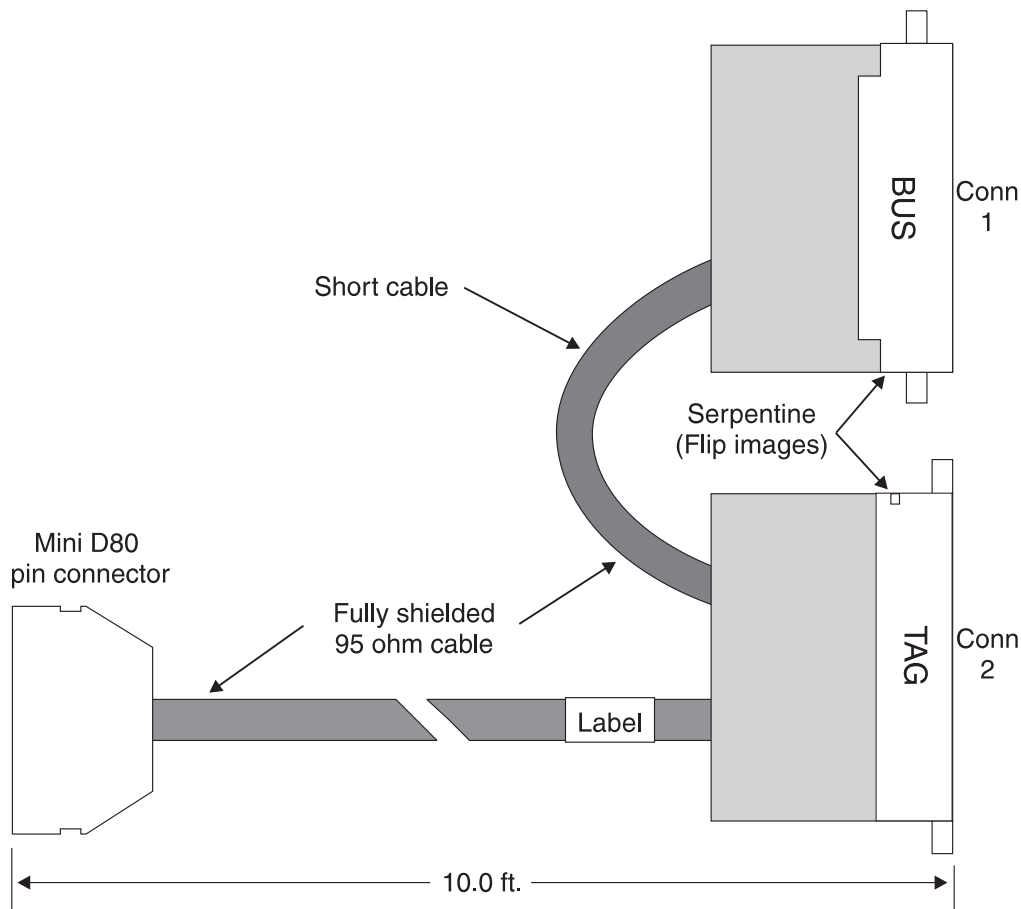


Figure 4. Bus/Tag Interface Cable Assembly

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

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

Testing the Card

To verify proper installation, the card diagnostics provided should be run before attaching the card to a control unit. The card diagnostics are supplied with the IBM 4159 on a bootable 3.5-inch floppy diskette. If you cannot locate the diagnostic diskette that was supplied with the card, see "Creating a Diagnostics Diskette for the IBM 4159" on page 17.

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

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

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

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

To run the diagnostic program, follow these steps:

1. If you have disabled the floppy drive as a boot device in the system BIOS, restore the floppy drive as the primary boot device.
2. Insert the diagnostics diskette in the floppy drive.
3. Restart the system. After a period of time, a window will display summarizing the results of initial diagnostics.
4. Review the summary and press any key to continue with additional diagnostics. The following menu displays:
Diagnostic test options are:
 0. Return to DOS
 1. Run all internal tests
 2. Run all internal tests and loopback tests
 Test number? _
5. Type "2" and press the "Enter" key to test all board functions including the 80-pin to tag/bus cable and channel driver/receivers. The tests will run continuously until you stop it by pressing any key or until an error is detected.
6. If a red error message displays, write down the contents of the error message and contact IBM customer support.
7. After at least ten test cycles, press any key to stop the test. If no error messages display, the test was a success.
8. Press any key to return to the menu.
9. Type "0" and press "Enter" to return to DOS.
10. Remove the diagnostic diskette from the floppy drive.
11. Power down the server/host PC.
12. Remove the emulator loopback connectors from the Bus/Tag Interface cable by alternating between unscrewing and gently pulling the connectors apart by hand.
13. Attach the loopback connectors to the Bus/Tag Interface cable for future use by looping the end of the black plastic lanyard on the loopback connector around the 10 foot cable of the Bus/Tag Interface cable and snapping it closed.
14. Store the diagnostic floppy disk in a safe place. It may be needed to diagnose communication problems in the future.

Important: You should install and test *all* IBM 4159 cards to be installed in a system prior to establishing connections to any control units (printing devices). This is highly recommended because slot numbers may change if additional IBM 4159 cards are added later. This may make

channel destinations defined in Infoprint Manager invalid. See “Installing More Than One IBM 4159 Card” for more information.

Installing More Than One IBM 4159 Card

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

1. Install each IBM 4159 card as instructed in “Installing the IBM 4159 Model 001 S/390 Parallel Channel Emulator Card” on page 17.
2. Test each card as instructed in “Testing the Card” on page 19.
3. Attach the tag connector on the Bus/Tag Interface cable to the supplied Tag Terminator as follows:
 - Inspect all connections to ensure that no pins are bent or damaged.
 - If connecting directly to the printing device, tighten the screws on the interface cable’s connectors.
 - If connecting to a channel cable, use the screws on that cable’s connectors.
 - Alternate between gradually tightening the screws and pushing the connectors together by hand.
4. Repeat the previous step to connect the bus connector on the Bus/Tag Interface cable to the supplied Bus Terminator.
5. Remove the PC covers, so you can see the LEDs on the installed IBM 4159 cards.
6. Power up the Windows NT/Windows 2000 system.
7. Open a DOS command prompt (by selecting **Programs** and then **Command Prompt** from the **Start** menu on Windows NT).
8. Type the following command and watch the channel cards while pressing the Enter key:
sense 1 00

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

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

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

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

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

Testing the Printer Connection

After verifying that each of your IBM 4159 cards is operational as described in "Testing the Card" on page 19, you should verify the connection between each IBM 4159 and every connected printer. Follow this procedure for each channel card you have installed:

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

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

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

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

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

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

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

where *DeviceAddress* is the two-character hexadecimal address of the control unit, and *SlotNumber* is the slot number assigned to the card by Windows. (If you have only one IBM 4159 in the system, this value is always "1." If you are installing more than one channel card, see "Installing More Than One IBM 4159 Card" on page 21 for information on how to determine the slot number assigned to each card.)

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

Chapter 4. Understanding Printer Drivers, Port Monitors, Windows Gateway Printers, and Passthrough Printers

Before you decide which type of Infoprint actual destination to create, you should first understand the following terms and concepts. Figure 5 on page 24 illustrates how these items can fit into your Infoprint Manager system.

Printer driver

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

Port monitor

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

Port

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

Windows printer

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

Windows shared printer

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

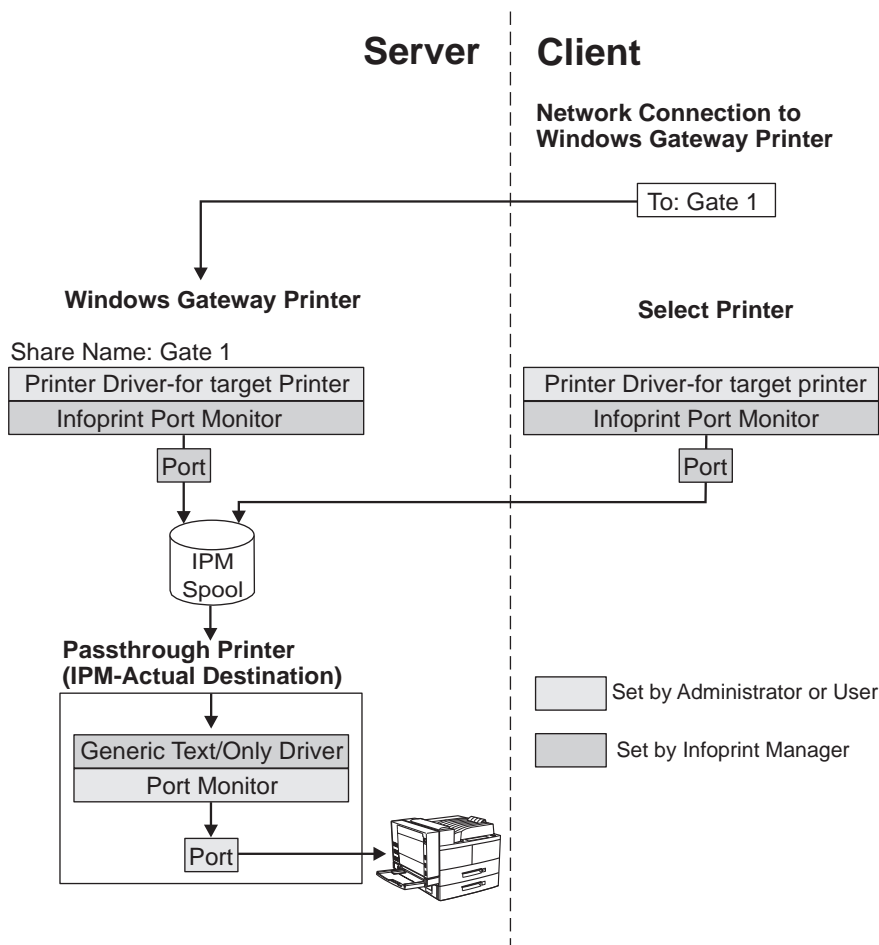


Figure 5. Infoprint Manager print data stream flow

Windows Gateway Printers

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

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

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

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

Note: You must create this destination before you create the Windows gateway printer.

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

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

Passthrough Printers

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

Note: For most IBM TCP/IP attached printers, you can use the IBM TCP/IP Network Port Monitor.

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

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

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

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

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

Chapter 5. Understanding Destination Support Systems (DSS)

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

PSF DSS

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

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 29.)

Passthrough DSS

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

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

- Attach the printer device as specified by its documentation
- Use the Infoprint Manager Management Console to create a Windows port to communicate with the printer device (see “Passthrough Printer” on page 45 for details)
- Install the Windows Generic/Text Only Driver from the Windows CD

BSD DSS

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

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

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

IPP DSS

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

If you send intelligent printer data stream (IPDS) to your printer, you should create PSF printers. Check Table 6 on page 30 to see which attachment type to create. Otherwise, the type of destination you create primarily depends on where your print jobs are coming from. The appropriate DSS is different for each of the following job submitters:

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

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

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

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

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

If the data stream that your applications send to Infoprint Manager is:	PostScript, Printer Control Language (PCL, versions 4, 5, and 5c only) or any non-IPDS data stream			
and the data stream that you send to this printer is:	the same that the application sends to Infoprint Manager			PCL4, PCL5, PCL5c, PPDS ¹ , IPDS
and your jobs are going to be sent to a printer:	through a Windows defined port	using a command such as lpr	that is IPP enabled	that is attached to your Infoprint Manager system in any of the ways listed in Table 6 on page 30.
Create this kind of actual destination:	Passthrough ²	BSD	IPP	PSF
Notes:				
1. You can only print PPDS on a non-Windows system, for example, by sending the PPDS data stream to an AIX system.				
2. If you are printing PCL data to a Windows NT-defined printer, you may want to consider creating a PSF (other-driver or command) destination instead. A Passthrough destination uses fewer processing resources, but a PSF destination provides much more functionality, such as accounting and automatic data stream transforms.				

Selecting a DSS for Printing from Host Systems Using PSF Direct

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

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

If the data stream that you send to your printer is:	IPDS	PSC4, PCL5, PCL5c, or PPDS ¹
---	------	---

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

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

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

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

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

If the data stream that your host system and applications send to Infoprint Manager is:	AFP, ASCII, DBCS ASCII, line data, PCL4, PCL5, PCL5c, PS, PDF, IPDS (through PSF Direct)		PCL4, PCL5, or PCL5c only	PS only
and the data stream that you send to your printer is:	IPDS	PCL4, PCL5, PCL5c, or PPDS ¹	PCL4, PCL5, or PCL5c	PS
Create this kind of actual destination:	PSF (TCP/IP or channel)	PSF (other driver or command)	PSF (other driver or command) OR any of the destination types listed in Table 3 on page 28	One of the destination types listed in Table 3 on page 28.
Notes: 1. You can only print PPDS on a non-Windows system, for example, by sending the PPDS data stream to an AIX system.				

Understanding Attachment Types for PSF Actual Destinations

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

TCP/IP

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

communicates with the device. The port number for TCP/IP-attached printers is an integer from 5001 to 65535. For printers attached using the i-data 7913 IPDS Printer LAN Attachment, you must use **5001** as the port number.

Channel

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

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

- Each IBM 4159 supports at most 8 printers or one IBM Infoprint 4000.
- You should plan to install the IBM 4159 in a long PCI slot. As a result, the number of long PCI slots you have available in your Windows NT/Windows 2000 system determines how many IBM 4159 cards you can install, up to a maximum of 8 cards. Many computers have fewer than 8 long PCI slots.
- The IBM 4159 supports data streaming at either 3.0 Mb per second or 4.5 Mb per second. All printers connected to a computer must be configured for the same data streaming rate.
- The IBM 4159 supports only block multiplex data transfers.

Other-Driver

The PCL or PPDS printer device communicates using TCP/IP or attaches directly to the Windows NT/Windows 2000 system through a parallel or serial port. To create the actual destination, you must specify the port associated with a port monitor needed to operate the PCL or PPDS printer.

Command

Before you create a PSF command actual destination, you must perform these tasks:

- Attach the printer device as specified by its documentation
- Create a Windows port to communicate with the printer device

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

Table 6. Selecting an Attachment Type for PSF Actual Destinations

If you are sending this data stream to the printer:	IPDS	IPDS	PCL4, PCL5, PCL5c, PPDS	PCL4, PCL5, PCL5c, PPDS
and you are going to attach the printer to the system where Infoprint Manager is running this way:	over the TCP/IP network	using the IBM 4159 Model 001 S/390 Parallel Channel Emulator Card	over the TCP/IP network OR directly attaching it through a parallel or serial port	over the TCP/IP network using a command such as lpr to submit jobs to it

Table 6. Selecting an Attachment Type for PSF Actual Destinations (continued)

Select this attachment type:	TCP/IP	Channel	Other-driver	Command
			Note: You cannot use a PSF Other-driver destination with PSF Direct.	

Chapter 6. Using the Infoprint Interfaces

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

For more information on the tasks listed here, refer to the online help systems in the Infoprint Manager Administration and Operations GUIs and the Infoprint Manager Management Console. The Infoprint Manager Administration GUI and the Infoprint Manager Operations GUI help systems also include tutorials to help you become acquainted with the GUIs and the tasks you may need to perform. To access the tutorials, launch one of the Infoprint Manager GUIs and select **Help** ->**Tutorials**.

For information on installing and starting the Infoprint Manager Administration and Operations GUIs, see "Chapter 10. Installing Infoprint Manager GUI Software" on page 61.

Tasks you perform using the Infoprint Manager Administration GUI

Printer tasks:

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

- Filter on actual destinations
- Display actual destinations
- Monitor printers
- Specify job batches ready for a printer
- Associate resource-context objects with an actual destination
- Associate auxiliary sheets with a PSF printer
- Activate auxiliary sheets for accounting or auditing information
- Associate input and output data user-exit programs with an actual destination

Job tasks:

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

Queue tasks:

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

Logical destination tasks:

- Create or copy a logical destination
- Move a logical destination
- Delete a logical destination
- Copy and modify job and document defaults
- Change the actual destinations fed by a logical destination
- Enable a logical destination
- Disable a logical destination

- View or change logical destination properties
- Filter on logical destinations
- Display logical destinations
- Associate a default job or default document
- Monitor logical destinations
- Specify the location of resources
- Specify printer driver names
- Adjust print quality in a default document
- Set or modify notification for default jobs

Server tasks:

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

Transform tasks:

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

Miscellaneous tasks:

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

Installing or Starting the Infoprint Manager Administration GUI

For information on installing and starting the Infoprint Manager Administration GUI, see “Chapter 10. Installing Infoprint Manager GUI Software” on page 61.

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

Job tasks:

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

Queue tasks:

- Filter on queues
- Monitor queues

Server tasks:

- Show all servers currently running in the namespace

Miscellaneous tasks:

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

- Access Help topics and tutorials

Installing and starting the Infoprint Manager Operations GUI

For information on installing and starting the Infoprint Manager Operations GUI, see “Chapter 10. Installing Infoprint Manager GUI Software” on page 61.

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

PSF Direct tasks:

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

Destination tasks:

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

MVS Download tasks:

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

Troubleshooting tasks:

- Capture system information to provide to IBM Service
- Manage server tracing

- Manage PSF destination tracing
- View PSF destination logs
- Reset communications between the Infoprint Manager server and other servers
- Create or clear namespace

Security tasks:

- View Infoprint Access Control Lists (ACLs) and the Infoprint users and groups who have permissions associated with them
- Add or delete Infoprint member/group of Infoprint ACL
- Modify Infoprint member/group permissions in Infoprint ACL
- Create, view, modify, or delete Infoprint security groups and their members

Input Manager tasks:

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

Miscellaneous tasks:

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

Starting the Infoprint Manager Management Console

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

Chapter 7. Creating an Actual Destination

For help in selecting the type of actual destination to create, see “Chapter 5. Understanding Destination Support Systems (DSS)” on page 27.

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

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

This chapter assumes that you have started the Infoprint Manager interfaces and you are comfortable using them. See “Chapter 6. Using the Infoprint Interfaces” on page 33 for information on the tasks you can perform with the Infoprint Manager interfaces.

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

Creating a Destination Driven by Infoprint Manager

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

- “PSF TCP/IP Printer”
- “PSF Channel Printer” on page 41
- “PSF Command Printer” on page 42
- “PSF Other-Driver Printer” on page 44
- “Passthrough Printer” on page 45
- “BSD Printer” on page 47
- “IPP Printer” on page 49

PSF TCP/IP Printer

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

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

Table 7. PSF TCP/IP Printer Worksheet

Wizard Prompt	Description	Value
Name	The name for the actual destination object (8 character limit). Note: This name is case-sensitive.	
Server	The server that controls this actual destination. The server name is the same as the name of the 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. (Typically, port 5001 is used.)	
Logical destination	The logical destination that directs jobs to this actual destination. Note: This name is case-sensitive.	__ Default __ Other:
Logical destination's server	The server that contains the logical destination. Note: This name is case-sensitive.	
Queue	The queue that holds jobs destined for this actual destination. Note: This name is case-sensitive.	__ Default __ Other:

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

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

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

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

PSF Channel Printer

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

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

Table 8. PSF Channel Printer Worksheet

Wizard Prompt	Description	Value
Name	The name for the actual destination object (8 character limit). Note: This name is case-sensitive.	
Server	The server that controls this actual destination. The server name is the same as the name of the system where the server is installed. Note: This name is case-sensitive.	
Model	Select the printer model from the pull-down list in the Infoprint Manager Administration GUI. If the printer you are working with is not in the pull-down list, enter the name as it appears on the printer.	
Channel device address	The two-digit hexadecimal control-unit address assigned to the physical print device hardware. Consult printer documentation for instructions on how to determine this value.	
Channel slot number	The system slot number where the channel card is installed. If more than one channel card is installed, consult "Installing More Than One IBM 4159 Card" on page 21 to determine the correct value. Otherwise, the default value of "1" is appropriate.	

Table 8. PSF Channel Printer Worksheet (continued)

Wizard Prompt	Description	Value
Logical destination	The logical destination that directs jobs to this actual destination. Note: This name is case-sensitive.	__ Default __ Other:
Logical destination's server	The server that contains the logical destination. Note: This name is case-sensitive.	
Queue	The queue that holds jobs destined for this actual destination. Note: This name is case-sensitive.	__ Default __ Other:

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

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

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

PSF Command Printer

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

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

1. Click the Windows **Start** button and select **Programs**—>**IBM Infoprint Manager**—>**Management Console**.
2. Select **Edit**—>**New**—>**Windows Port**.
3. In the **Create Windows Port** dialog, select the appropriate port monitor for your printing environment from the pull-down list and click **OK**.

For example, if you are using an IBM network-attached workgroup printer, such as the Infoprint 20, as a non-IPDS printer, you should use the IBM TCP/IP Network Port Monitor.

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

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

Table 9. PSF Command Printer Worksheet

Wizard Prompt	Description	Value
Name	The name for the actual destination object (8 character limit). Note: This name is case-sensitive.	
Server	The server that controls this actual destination. The server name is the same as the name of the system where the server is installed. Note: This name is case-sensitive.	
Model	Select the printer model from the pull-down list in the Infoprint Manager Administration GUI. If the printer you are working with is not in the pull-down list, enter the name as it appears on the printer.	
SNMP TCP/IP address	The dotted-decimal IP address used to access this printer. This value is used only for SNMP printers.	
Device	The AIX device name. This is not applicable for Windows NT/Windows 2000.	Leave blank.
Printer command	The command string used to send a job to the appropriate Windows printer. For example, <code>lpr -S serverName -P printerName</code> . Note: This command is case-sensitive.	
Data stream	The data stream expected by the printing device (PCL4, PCL5, PCL5C, or PPDS).	
Logical destination	The logical destination that directs jobs to this actual destination. Note: This name is case-sensitive.	__ Default __ Other:
Logical destination's server	The server that contains the logical destination. Note: This name is case-sensitive.	
Queue	The queue that holds jobs destined for this actual destination. Note: This name is case-sensitive.	__ Default __ Other:

Table 9. PSF Command Printer Worksheet (continued)

Wizard Prompt	Description	Value
<p>Note: Prior to using this worksheet to create your Infoprint Manager actual destination, you may need to use the standard Windows Add Printer Wizard to make the printer available.</p>		

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

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

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

PSF Other-Driver Printer

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

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

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

Table 10. PSF Other-Driver Printer Worksheet

Wizard Prompt	Description	Value
Name	The name for the actual destination object (8 character limit). Note: This name is case-sensitive.	
Server	The server that controls this actual destination. The server name is the same as the name of the 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 10. PSF Other-Driver 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 or Windows port name	The Windows port associated with this destination.	
Data stream	The data stream expected by the printing device (for example, PCL4 or PPDS).	
Logical destination	The logical destination that directs jobs to this actual destination. Note: This name is case-sensitive.	__ Default __ Other:
Logical destination's server	The server that contains the logical destination. Note: This name is case-sensitive.	
Queue	The queue that holds jobs destined for this actual destination. Note: This name is case-sensitive.	__ Default __ Other:

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

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

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

Passthrough Printer

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

There are four steps necessary to create a Passthrough actual destination:

1. Install the Windows Generic/Text Only Drive by doing the following:
 - a. Use the Windows **Add Printer Wizard** to create a printer that uses the FILE port.
 - b. When the wizard gives you a list of drivers to choose from, select the Generic/Text Only driver.

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. Go to **Edit—>New—>Windows Port**.
- c. In the **Create Windows Port** dialog, select the appropriate port monitor for your printing environment from the pull-down list and click **OK**.

For example, if you are using IBM network attached workgroup printers as a non-IPDS printer, such as the Infoprint 20, you should use the IBM TCP/IP Network Port Monitor.

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

4. Create a Passthrough printer by completing the worksheet Table 11 and using the **Create Printer Wizard** in the Infoprint Manager Administration GUI. (On the menu bar, click **Printer—>Create—>Passthrough**.) 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 9. Printing a Test Job” on page 57.

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

Table 11. Passthrough Destination Worksheet

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

Table 11. Passthrough Destination Worksheet (continued)

Wizard Prompt	Description	Value
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 12. BSD Printer Worksheet

Wizard Prompt	Description	Value
Name	The name for the actual destination object. Note: This name is case-sensitive.	

Table 12. BSD Printer Worksheet (continued)

Wizard Prompt	Description	Value
Server	The server that controls this actual destination. The server name is the same as the name of the system where the server is installed. Note: This name is case-sensitive.	
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 <code>lpr</code> command. For example, <code>lpr -S serverName -P printerName</code> . Note: This command is case-sensitive.	
Logical destination	The logical destination that directs jobs to this actual destination. Note: This name is case-sensitive.	<input type="checkbox"/> Default <input type="checkbox"/> 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.	<input type="checkbox"/> Default <input type="checkbox"/> Other:

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

Notes:

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

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

IPP Printer

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

Before creating an IPP printer, complete the following worksheet.

Table 13. IPP Destination Worksheet

Wizard Prompt	Description	Value
Name	The name for the actual destination object. This is the printer URL, for example, np17.prtrm4.bldr.ibm.com. Note: This name is case-sensitive.	
Server	The server that controls this actual destination. The server name is the same as the name of the system where the server is installed. Note: This name is case-sensitive.	
URL	The universal resource locator (URL) for this destination.	
TCP/IP address	The dotted-decimal IP address used to access this printer. This value is used for SNMP printers only.	
Logical destination	The logical destination that directs jobs to this actual destination. Note: This name is case-sensitive.	__ Default __ Other:
Logical destination's server	The server that contains the logical destination. Note: This name is case-sensitive.	
Queue	The queue that holds jobs destined for this actual destination. Note: This name is case-sensitive.	__ Default __ Other:

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

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

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

Creating a Host-Driven Destination

To create a PSF Direct Only actual destination, you must run the Infoprint Manager Management Console as described in “Starting the Infoprint Manager Management Console” on page 38. 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 51
- “PSF Direct Only Non-IPDS Printer” on page 51

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

- “PSF Direct Host Receiver” on page 52
- “MVS Download Receiver” on page 52

PSF Direct Only TCP/IP Printer

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

Table 14. PSF Direct Only TCP/IP Printer Worksheet

Management Console Prompt	Description	Value
Destination	The name for the actual destination object (8 character limit). Note: This name is case-sensitive.	
TCP/IP Internet Address	The dotted-decimal IP address used to access this printer.	
TCP/IP Port Number	The port used by the printer for communication. (Typically, port 5001 is used.)	
Connection Timeout	Number of seconds that the server will try to establish a connection with the destination before terminating the PSF Direct session.	
Intervention Timer	Number of seconds that the server will wait for a problem at the printer (for example, “Printer out of paper”) to be resolved before canceling a job.	

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

PSF Direct Only Channel Printer

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

Table 15. PSF Direct Only Channel Printer Worksheet

Management Console Prompt	Description	Value
Destination	The name for the actual destination object (8 character limit). Note: This name is case-sensitive.	
Channel Device Address	The two-digit hexadecimal control-unit address assigned to the physical print device hardware. Consult printer documentation for instructions on how to determine this value.	
Channel Slot Number	The system slot number where the channel card is installed. If more than one channel card is installed, consult "Installing More Than One IBM 4159 Card" on page 21 to determine the correct value. Otherwise, the default value of "1" is appropriate.	
Intervention Timer	Number of seconds that the server will wait for a problem at the printer (for example, "Printer out of paper") to be resolved before canceling a job.	

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

PSF Direct Only Non-IPDS Printer

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

Table 16. PSF Direct Only Non-IPDS Printer Worksheet

Management Console Prompt	Description	Value
Destination	The name for the actual destination object (8 character limit). Note: This name is case-sensitive.	
Data Stream	The data stream expected by the printing device (such as PCL4 or PPDS).	

Table 16. PSF Direct Only Non-IPDS Printer Worksheet (continued)

Management Console Prompt	Description	Value
Command to Print	The command used to submit jobs to this destination. Note: This command is case-sensitive.	
Printer Memory	The amount of memory available on the printer itself.	

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

PSF Direct Host Receiver

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

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

Table 17. PSF Direct Host Receiver Worksheet

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

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

MVS Download Receiver

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

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

Table 18. MVS Download Host Receiver Worksheet

Management Console Prompt	Description	Value
Port Number	The port assigned for communication with OS/390 or MVS. This value must be the same as the port assigned during configuration of the host system.	
Target Destination Name	The Infoprint Manager logical destination to which jobs are routed from this receiver by default. This default may be overridden with the appropriate OS/390 or MVS job parameters and printer control file settings. Note: This name is case-sensitive.	
Print Control File	The file that contains the appropriate attributes for jobs submitted to this receiver. You may use the default file, or you may point to a customized version of this default file.	
Exit Program Name	The program that processes jobs submitted to this receiver from the host and passes the jobs to the requested Infoprint Manager destination. Typically, the default program mvdsdsubm.exe is used.	
Retain command files	Indicate whether to save the command files for jobs that do not print correctly.	<input type="checkbox"/> yes <input type="checkbox"/> no
Process one file at a time	Indicate whether Infoprint Manager should wait for a previous job to complete before starting to process the next job.	<input type="checkbox"/> yes <input type="checkbox"/> no

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

Using Infoprint Gateways

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

- A Windows gateway printer is a Windows shared printer that allows users anywhere in the network to submit print jobs through Infoprint Manager. Users

must follow the instructions in “Adding a Windows gateway printer to a workstation” on page 85 to add the Windows gateway printer to their desktops. Use the Management Console to create and administer a Windows gateway printer. The Management Console help includes instructions.

- Infoprint Manager provides an Internet Printing Protocol (IPP) gateway. The IPP gateway allows users anywhere in the network who have IPP client software installed to submit print jobs through Infoprint Manager, even to printers that are not IPP-enabled. Users must follow the instructions provided with the IPP client to add a printer to their desktops.

Use the Management Console to enable the IPP gateway.

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

Chapter 8. Synchronizing Infoprint Manager with an Infoprint 4000

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

1. Use either Infoprint Manager GUI to specify the media that the actual destination representing the IBM Infoprint 4000 supports:
 - a. Invoke the Infoprint Manager GUI as described in “Starting the Infoprint Manager GUIs” on page 65.
 - b. Select the Infoprint 4000 printer object in the tree window.
 - c. Click the **Change Media** button on the task bar. The **Change Media** dialog displays.
 - d. Associate each tray with an appropriate media. Click the **Help** button for more information.
2. On the printer, define forms that correspond to the media you specified in the previous step. Consider the settings in the following table as an example:

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

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

Chapter 9. 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 38. Then follow these steps:

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

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

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

Part 2. Getting Started with Client Systems

Chapter 10. Installing Infoprint Manager GUI Software

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

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

This document contains the following sections:

- “Preparing for the Infoprint Manager GUI”
- “Installing the Software” on page 62
- “Uninstalling the Infoprint Manager GUIs” on page 66

Preparing for the Infoprint Manager GUI

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

Because of this change, we recommend that you uninstall any existing versions of the Infoprint Manager GUIs before you install the new Runtime Environment and the new GUIs.

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

1. Type `java -fullversion` on an MS-DOS command line.
2. Verify that output from the command contains **130** in text that is similar to the following:
`cn130-20001124`
3. If the output from the command does not contain the **130**, uninstall the currently installed Runtime Environment component:
 - a. Click the Windows **Start** button and select **Settings** → **Control Panel**, then double-click the **Add/Remove Programs** icon.
 - b. Find the **IBM Runtime Environment, Java(TM) Tech. Edition, 1.1.8** entry in the list of programs that can be removed and click **Add/Remove**. Follow the instructions on the screen to complete the process.
 - c. Remove the JRE or Runtime Environment entry from the PATH environment variable.

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

1. Insert the IBM Infoprint Manager Client CD-ROM into the drive.

2. Launch the `\jre\install.exe` executable from the CD-ROM:
 - a. Double-click the **My Computer** icon.
 - b. Double-click the CD-ROM drive icon.
 - c. Double-click the **jre** folder icon.
 - d. Double-click the **install.exe** icon.
3. Provide the information as prompted by the InstallShield program. When the installer asks if you want to install the Runtime Environment as the system Java Virtual Machine (JVM), answer **Yes**.
4. Type `java -fullversion` on an MS-DOS command line.
5. Verify that the output from the command contains **130** in text similar to the following:


```
cn130-20001124
```

Installing the Software

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

- “Installing the Infoprint Manager Operations GUI”
- “Installing the Infoprint Manager Administration GUI” on page 63
- “Starting the Infoprint Manager GUIs” on page 65

Installing the Infoprint Manager Operations GUI

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

Note: The Infoprint Manager GUI help systems changed dramatically in Infoprint Manager for Windows NT and Windows 2000 PTF UR52620. As a result, the help systems for all language versions if the GUIs will appear in English only. Translated versions of the help systems will be available in the next PTF.

1. If you have not already done so, uninstall any existing versions of the Infoprint Manager GUIs that you have on this system.
2. Insert the IBM Infoprint Manager Client CD-ROM into the drive.
3. Navigate to the `\ipgui\oper\locale` directory on your CD-ROM drive:
 - a. Double-click the **My Computer** icon.
 - b. Double-click the CD-ROM drive icon.
 - c. Double-click the **ipgui** folder icon.
 - d. Double-click the **oper** folder icon.
 - e. Double-click the folder icon that corresponds to your preferred language.
4. Double-click the **ipguiwinsetup.exe** icon to launch InstallShield. It may take a minute for the installer to start.
5. Follow the instructions on the InstallShield screens, paying attention to the following guidelines.
 - You should only install the DCE version of the Infoprint Manager GUIs if you will be using them to work with the DCE version of Infoprint Manager for AIX.
 - The Infoprint Manager GUI offers three different views: **Basic**, **Advanced**, and **Distributed**. The installer asks if you want to place icons for any and all of the views on the your desktop. The Infoprint Manager for Windows NT and Windows 2000 server only supports the advanced view of the Infoprint

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

- Use the *Basic* view if your Infoprint server is configured to support:
 - Print on Demand (commercial) printing
 - Assignment of jobs to actual destinations when they are submitted
 - PostScript, TIFF, and variable data jobs
 - Jobs submitted from Infoprint Submit, Infoprint Scan, or Infoprint Library
 - Use the *Advanced* view if your Infoprint server is configured to support:
 - Data center (production) or distributed mission printing
 - Printer pooling for workload balancing
 - Jobs submitted from the command line, from workstation applications through Infoprint Select, or from other application programs
 - Use the *Distributed* view if you are a customer service representative at a help desk who needs to locate jobs and assist customers with printing problems.
6. After the installer finishes, use one of the following methods to add the directory where you installed the Infoprint Manager GUI to the PATH environment variable. For example, if you installed the Infoprint Manager GUI in the default directory, your entry would be:

```
;c:\ipgui
```

All of the examples in this section assume that you used the default directory.

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

```
;c:\ipgui
```
- On Windows NT, Windows ME, or Windows 2000:
 - a. Click the right mouse button on the **My Computer** icon on your desktop and Select **Properties** from the pop-up menu to open the System Properties window.
 - b. Click the **Environment** tab.
 - c. In the **System Variables** list, find **PATH** and click it. The variable and its current value appear in the fields at the bottom of the dialog.
 - d. Click in the **Value** field and press the **End** key to get to the end of the entry.
 - e. At the end of the entry, type:

```
;c:\ipgui
```

Note: There should only be one semicolon (;) at the end of the entry. If there is already one there, do not type another one.

- Click **Set**, then click **OK**.
7. Restart the system to make the change in the PATH environment variable effective.

Installing the Infoprint Manager Administration GUI

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

Note: The Infoprint Manager GUI help systems changed dramatically in Infoprint Manager for Windows NT and Windows 2000 PTF UR52620. As a result, the help systems for all language versions if the GUIs will appear in English only. Translated versions of the help systems will be available in the next PTF.

1. If you have not already done so, uninstall any existing versions of the Infoprint Manager GUIs that you have on this system.
2. Insert the IBM Infoprint Manager Client CD-ROM into the drive.
3. Navigate to the `\ipgui\admin\locale` directory on your CD-ROM drive:
 - a. Double-click the **My Computer** icon.
 - b. Double-click the CD-ROM drive icon.
 - c. Double-click the **ipgui** folder icon.
 - d. Double-click the **admin** folder icon.
 - e. Double-click the folder icon that corresponds to your preferred language.
4. Double-click the **ipguiwinadmsetup.exe** icon to launch InstallShield.
5. Follow the instructions on the InstallShield screens, paying attention to the following guidelines.
 - You should only install the DCE version of the Infoprint Manager GUIs if you will be using them to work with the DCE version of Infoprint Manager for AIX.
 - The Infoprint Manager GUI offers three different views: **Basic**, **Advanced**, and **Distributed**. The installer asks if you want to place icons for any and all of the views on the your desktop. The Infoprint Manager for Windows NT and Windows 2000 server only supports the advanced view of the Infoprint Manager GUIs, so if you plan to use the GUI to work with an Infoprint Manager for Windows NT and Windows 2000 server, you should only select the **Advanced** view. If you plan to use the GUI to work with an Infoprint Manager for AIX server, you can choose to install any (or all) of the icons. Each one is most suitable for a particular situation, as described below.
 - Use the *Basic* view if your Infoprint server is configured to support:
 - Print on Demand (commercial) printing
 - Assignment of jobs to actual destinations when they are submitted
 - PostScript, TIFF, and variable data jobs
 - Jobs submitted from Infoprint Submit, Infoprint Scan, or Infoprint Library
 - Use the *Advanced* view if your Infoprint server is configured to support:
 - Data center (production) or distributed mission printing
 - Printer pooling for workload balancing
 - Jobs submitted from the command line, from workstation applications through Infoprint Select, or from other application programs
 - Use the *Distributed* view if you are a customer service representative at a help desk who needs to locate jobs and assist customers with printing problems.
6. After the installer finishes, use one of the following methods to add the directory where you installed the Infoprint Manager GUI to the PATH environment variable. For example, if you installed the Infoprint Manager GUI in the default directory, your entry would be:

```
;c:\ipguiadm
```

All of the examples in this section assume that you used the default directory.

- On Windows 95 or Windows 98, open an MS-DOS window and edit the autoexec.bat file. At the end of the current value of the PATH variable, type the following:
;c:\ipguiadm
 - On Windows NT, Windows ME, or Windows 2000:
 - a. Click the right mouse button on the **My Computer** icon on your desktop and select **Properties** from the pop-up menu to open the System Properties window.
 - b. Click the **Environment** tab.
 - c. In the **System Variables** list, find **PATH** and click it. The variable and its current value appear in the fields at the bottom of the dialog.
 - d. Click in the **Value** field and press the **End** key to get to the end of the entry.
 - e. At the end of the entry, type:
;c:\ipguiadm




Note: There should only be one semicolon (;) at the end of the entry. If there is already one there, do not type another one.
 - Click **Set**, then click **OK**.
7. Restart the system to make the change in the PATH environment variable effective.

Starting the Infoprint Manager GUIs

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

Attention: The graphical part of the icons are identical (see Table 19 for illustrations of the icons). The label under the Infoprint Manager Administration GUI icon (**Advanced Administration Infoprint**) is usually truncated. The label under the Infoprint Manager Operations GUI icon (**Advanced Infoprint**) is not truncated.

Table 19. The Infoprint Manager GUI icon

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

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

Note: When you install the Infoprint Manager for Windows NT and Windows 2000 server software, you automatically install both the Infoprint Manager Administration GUI and the Infoprint Manager Operations GUI on the same system. You can also install either the Infoprint Manager Administration GUI or the Infoprint Manager Operations GUI on remote Windows systems by following the procedures described in “Installing the Infoprint Manager Administration GUI” on page 63 and “Installing the Infoprint Manager Operations GUI” on page 62. The Infoprint Manager Operations GUI provides a subset of the functionality available in the Infoprint Manager Administration GUI. This subset includes operator tasks.

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

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

Uninstalling the Infoprint Manager GUIs

To uninstall the Infoprint Manager GUIs , follow these steps:

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

Chapter 11. Installing Infoprint Manager Notifications

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

This document contains the following sections:

- “Preparing for Infoprint Manager Notifications”
- “Locating Software on the CD-ROM” on page 68
- “Installing the Software” on page 68
- “Starting Infoprint Manager Notifications” on page 68
- “Uninstalling Infoprint Manager Notifications” on page 68

Preparing for Infoprint Manager Notifications

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

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

1. Type `java -fullversion` on an MS-DOS command line.
2. Verify that output from the command contains **130** in text that is similar to the following:
`cn130-20001124`
3. If the output from the command does not contain the **130**, uninstall the currently installed Runtime Environment component:
 - a. Click the Windows **Start** button and select **Settings** → **Control Panel**, then double-click the **Add/Remove Programs** icon.
 - b. Find the **IBM Runtime Environment, Java(TM) Tech. Edition, 1.1.8** entry in the list of programs that can be removed and click **Add/Remove**. Follow the instructions on the screen to complete the process.
 - c. Remove the JRE or Runtime Environment entry from the PATH environment variable.

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

1. Insert the IBM Infoprint Manager Client CD-ROM into the drive.
2. Launch the `\jre\install.exe` executable from the CD-ROM:
 - a. Double-click the **My Computer** icon.
 - b. Double-click the CD-ROM drive icon.
 - c. Double-click the **jre** folder icon.

- d. Double-click the **install.exe** icon.
3. Provide the information as prompted by the InstallShield program. When the installer asks if you want to install the Runtime Environment as the system Java Virtual Machine (JVM), answer **Yes**.
4. Type `java -fullversion` on an MS-DOS command line.
5. Verify that the output from the command contains **130** in text similar to the following:
`cn130-20001124`

Locating Software on the CD-ROM

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

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

Installing the Software

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

1. Double-click the **notifysetup.exe** icon to launch InstallShield.
2. Follow the instructions on the InstallShield screens.
3. Restart the system.

Starting Infoprint Manager Notifications

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

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

Uninstalling Infoprint Manager Notifications

To uninstall Infoprint Manager Notifications, follow these steps:

1. From the **Start** menu, click **Settings—>Control Panel**.
2. Double-click the **Add/Remove Programs** icon.
3. Select **Infoprint Manager Notifications**.
4. Click the **Add/Remove** button.
5. Follow the instructions on the screens that display.
1. Click the Windows **Start** button and select **Programs -> Accessories -> Command Prompt** to open a Command Prompt window.
2. Change directories so the Command Prompt is in the directory that Infoprint Manager Notifications is installed in. By default, it is installed in `c:\notification`.

3. With the command prompt in the correct directory, type:

```
java uninstall
```

and press **Enter**. The UninstallShield wizard begins.

4. Follow the instructions in the UninstallShield.
5. When the UninstallShield is finished, the Infoprint Manager Notifications will be uninstalled but the directory that it was installed in will still be on your system. You can delete the directory if you do not want it on your system.

Chapter 12. Installing Infoprint Select

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

- “Understanding Commands”
- “Installing Infoprint Select from a CD-ROM” on page 72
- “Configuring your Infoprint Manager Server to work with Infoprint Select” on page 73
- “Creating Infoprint Select printers” on page 74

Understanding Commands

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

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

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

By default, Infoprint Manager security allows everyone to use the **pdpr**, **pdl**s, and **pdq**, while only certain groups can use the other commands. For additional information about Infoprint Manager security and permissions, refer to the on-line

help system in the Management Console and the **Managing Security Administrator** procedure on the Infoprint Manager Publications CD-ROM or on the IBM Printing Systems website at <http://www.ibm.com/printers>. On the Printing Systems homepage, click Infoprint Manager under **Resources for**, then click Infoprint Manager for Windows NT and Windows 2000 on the Infoprint Manager Family homepage. Select **Product Library** from the drop-down list in the right hand navigation bar, then click the link for **Administrator Procedures**.

Installing Infoprint Select from a CD-ROM

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

Notes:

1. If you plan to use Infoprint Select to submit print jobs to an Infoprint Manager for AIX server that uses the IBM Distributed Computing Environment (DCE) for AIX, refer to “Installing DCE Support for Infoprint Select with an Infoprint Manager for AIX Server” before you continue with the installation.
2. If you plan to use Infoprint Select to print PostScript jobs to an AIX DSS or BSD DSS printer, be sure to use the PostScript printer driver that came with your printer when you create an Infoprint Select printer on your desktop. These drivers include PostScript Printer Definitions (PPDs) that are specific to your printer. Do not use the printer drivers and PPDs that are provided with Infoprint Select. They contain specific actual destination attributes that apply only to PSF DSS printers.
3. If you change a port number on a Windows 95 system, you may receive the following message:

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

You can ignore this message.

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

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

If you have IBM Distributed Computing Environment (DCE) for AIX installed on your computer at version 2.0 or later, you may choose to install DCE Support through the Custom installation method on InstallShield. DCE Support will allow you to use administrative Infoprint Manager commands like **pdenable**, **pdpause**, and **pdcreate** when communicating with Infoprint Manager servers that require

DCE authorization. In addition, the Infoprint Manager administrator may restrict access to a printer to users who are logged into DCE with a particular DCE user ID or DCE group ID.

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

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

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

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

Configuring your Infoprint Manager Server to work with Infoprint Select

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

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

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

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

Security Administrator procedure on the Infoprint Manager Publications CD-ROM or on the IBM Printing Systems website at <http://www.ibm.com/printers> for additional information.

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

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

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

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”
- “Creating Infoprint Select printers on Windows 95/98 systems” on page 75
 - “Adding Your First Infoprint Select Printer on Windows 95/Windows 98 Systems” on page 75
 - “Adding an Additional Infoprint Select Printer on Windows 95/Windows 98 Systems” on page 77
- “Creating Infoprint Select printers on Windows NT systems” on page 78
 - “Adding Your First Infoprint Select Printer on Windows NT Systems” on page 78
 - “Adding An Additional Infoprint Select Printer on Windows NT Systems” on page 79
- “Creating Infoprint Select printers on Windows 2000 systems” on page 80
 - “Adding Your First Infoprint Select Printer on Windows 2000 Systems” on page 80
 - “Adding An Additional Infoprint Select Printer on Windows 2000 Systems” on page 81

Collecting Required Information

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

- The host name or IP address of the Infoprint Manager server
- The port number that the Infoprint Manager server uses to communicate with client systems

The default is 6874.

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

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

Important: Drivers and Finishing The automatic data stream transforms that PSF printers use do not support finishing (stapling or hole punching). 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 datastream (such as a Passthrough printer or an AIX printer).

If you cannot use a different submission method and cannot submit your jobs to a different type of Infoprint printer, the only way to request finishing options on PCL and PostScript jobs submitted to a PSF destination is to use a default job. A *default job* is a list of attributes that is applied to every job that a particular logical destination receives. You can use the Infoprint Manager Administration GUI to modify the default job for the logical destination that Infoprint Select sends jobs to so that it requests the appropriate finishing options. However, this method is not recommended for two reasons. First, 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. In addition, a logical destination can only have one default job, and a default job can only have one finishing option set. If you want to use different finishing options, you must create multiple logical destinations, each with different options set on the default jobs. Then, you must create a different printer on your desktop to submit jobs to each logical destination.

Creating Infoprint Select printers on Windows 95/98 systems

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

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

1. On the Windows desktop, double-click the **My Computer** icon.
2. Double-click the **Printers** folder icon.
3. Double-click the **Add Printer** icon. The **Add Printer Wizard** window displays. Click **Next**.
4. Select **Local Printer** and click **Next**.
5. Click **Have Disk**.
 - a. Click **Browse**.
 - b. Navigate to the directory where you installed Infoprint Select. (By default, this is c:\Infoprint.) This directory holds the required `ibmprt95.inf` file.
 - c. Click **OK**.
 - d. Click **OK** to close the **Install from Disk** window.

6. Select a printer driver that is suitable for the printer you want to use and click **Next**.
7. If the next dialog is a notification that the printer driver already exists, select **Replace existing driver** and click **Next**.
8. In the **Available ports** list, find **Infoprint (Infoprint Select)** and check the box next to it.

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

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

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

13. Click **Refresh Printer Selection List**.
14. Select the appropriate printer from the list.
15. Click **OK**.
16. Click **Next**.
17. Enter a name for the printer in the field provided. This is the name by which the printer will be known to your Windows applications and the Windows desktop. Click **Next**.
18. When you are asked **Would you like to print a test page?**, select **No** and click **Finish**.

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

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

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

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

If the **Files Needed** dialog appears again, follow a similar procedure to copy the files from either the \win95\system directory (\windows\system under Windows 98) or the Infoprint Select installation directory. You should find all missing files in one of these two locations.

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

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

1. Open a Command Prompt window and edit the autoexec.bat file.
2. Add the following line to the file:
`SET PDPRINTER=logicaldestinationname`
3. Save your changes and close the autoexec.bat file.
4. Restart the Windows system to make this change effective.

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

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

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

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

Before adding an Infoprint Select printer to your Windows NT/Windows 2000 environment, you must first collect the information described in “Collecting Required Information” on page 74. Also, you must perform the appropriate server configuration as described in “Configuring your Infoprint Manager Server to work with Infoprint Select” on page 73.

To print to an additional Infoprint Select printer, you must add an additional Infoprint Select port. Otherwise the configuration is similar to that described above in “Adding Your First Infoprint Select Printer on Windows 95/Windows 98 Systems” on page 75.

Follow these steps to add an additional Infoprint Select port:

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

Infoprint Select printer. (The port you just created still exists and will be soon be used for the additional Infoprint Select printer.)

10. Click **OK** to close the **Properties** window.

After creating this new Infoprint Select port, follow the steps described in “Adding Your First Infoprint Select Printer on Windows 95/Windows 98 Systems” on page 75, 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 74.
- Configure the server as described in “Configuring your Infoprint Manager Server to work with Infoprint Select” on page 73.

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** 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 **Next**.
13. Select the printer driver you wish to install and click **Next**.
14. If the next dialog tells you that the printer driver already exists, select **Replace existing driver** and click **Next**.
15. Enter a name for the printer in the field provided. This is the name by which the printer will be known to your Windows applications and the Windows desktop. Click **Next**.
16. Confirm that the **Not shared** radio button is selected and click **Next**.

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

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

1. In the **Files Needed** dialog, click **Browse**.
2. Navigate to the c:\winnt\system32 directory (assuming that your operating system is installed on the c: drive) and select the file that is needed.
3. Click **Open**.
4. Click **OK**.
5. If the pscript.dll file is not found in this directory, you must load it from the operating system CD-ROM. To do this, follow these steps:
 - a. Insert the Windows NT operating system CD-ROM.
 - b. In the **Files Needed** dialog, click **Browse**.
 - c. Navigate to the d:\I386\Pscript.dl_ file (where *d:* is your CD-ROM drive) and select the file that is needed.
 - d. Click **Open** and then **OK** to complete the configuration.

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

Adding An Additional Infoprint Select Printer on Windows NT Systems

Before adding an Infoprint Select printer to your Windows NT environment, you must first collect the information described in "Collecting Required Information" on page 74. Also, you must perform the appropriate server configuration as described in "Configuring your Infoprint Manager Server to work with Infoprint Select" on page 73.

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 78.

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 78, 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 74.
- Configure the server as described in “Configuring your Infoprint Manager Server to work with Infoprint Select” on page 73.

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

1. From the Windows desktop, click **Start**—>**Settings**—>**Printers**—>**Add Printer**.
2. The **Add Printer Wizard** window displays. Click **Next**.
3. In the **Local or Network Printer** dialog, select the **Local printer** button and ensure that the **Automatically detect and install my Plug and Play Printer** button is **not** selected. Click **Next**.
4. In the **Select the Printer Port** dialog, select the **Use the following port** check box, then scroll down the list of ports until you find the **Infoprint** port and select it. Click **Next**.
5. On the next dialog, select the manufacturer and model of your printer and click **Next**.
6. If the driver for your printer is already installed, the **Use Existing Driver** dialog appears. Click **Next**.
7. The **Name your Printer** dialog appears. Enter a name for the printer in the field provided. This is the name by which the printer will be known to your Windows applications and the Windows desktop. Click **Next**.
8. Select the **Do not share this printer** radio button and click **Next**.
9. When you are asked **Would you like to print a test page?** select **No** and click **Next**.
10. Click **Finish**.
11. From the Windows desktop, click the Windows **Start** button and select **Settings**—> **Printers**.
12. On the menu bar of the **Printers** window, click **File** and select **Server Properties**.
13. In the **Print Server Properties** window, click the **Ports** tab.
14. Highlight the **Infoprint Select** port that you want to configure and click **Configure Port**.
15. In the **Infoprint Port** window, find the **Print Server** field and select **Infoprint Manager** from the drop-down list.
16. In the **Host Name** field, type the host name of your Infoprint Manager server.
17. In the **Host Port** field, type the port number that your Infoprint Manager server uses to communicate with client systems. The default port is 6874.

Note: You can find this port number in the **Service Configuration** dialog in the Management Console.
18. Click **Refresh Printer Selection List**.
19. Select the appropriate printer from the list.
20. Click **OK**.
21. Click **Close**.

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

1. Click **Browse**.
2. Navigate to the c:\winnt\system32 directory (assuming that your operating system is installed on the c: drive), and select the file that is needed.
3. Click **Open**.
4. Click **OK**.
5. If the pscript.dll file is not found in this directory, you must load it from the operating system CD-ROM. To do this, follow these steps:
 - a. Insert the Windows 2000 operating system CD-ROM.
 - b. Click **Browse** on the **Files Needed** dialog.
 - c. Navigate to the d:\I386\Pscript.dl_ file (where *d:* is your CD-ROM drive).
 - d. Click **Open** and then **OK** to complete the configuration.

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

Adding An Additional Infoprint Select Printer on Windows 2000 Systems

Before adding an Infoprint Select printer to your Windows 2000 environment, you must first collect the information described in “Collecting Required Information” on page 74. Also, you must perform the appropriate server configuration as described in “Configuring your Infoprint Manager Server to work with Infoprint Select” on page 73.

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 80.

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

1. From the Windows desktop, click **Start—>Settings—>Printers—>Add Printer**.
2. The **Add Printer Wizard** window displays. Click **Next**.
3. In the **Local or Network Printer** dialog, select **Local printer** and clear the **Automatically detect and install my Plug and Play Printer** checkbox. Click **Next**.
4. Click **Create a new port** and highlight **Infoprint port monitor** from the pull-down list. Click **Next**.
5. In the dialog that opens, type a name for the new port, such as Infoprint-2, and click **OK**. (Use a name that no other port uses.)
6. Continue with step 5 of the procedure documented in “Adding Your First Infoprint Select Printer on Windows 2000 Systems” on page 80, configuring the new port you just added.

Chapter 13. Using the Infoprint Manager Line Printer Daemon (LPD)

The Infoprint Manager 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 Microsoft TCP/IP Printing LPD, however it submits the files it receives directly to an Infoprint destination, not 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 the Microsoft TCP/IP Printing LPD installed, Infoprint Manager will disable it and enable the Infoprint Manager LPD. If you would prefer to use the Microsoft TCP/IP Printing LPD, 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 it 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.

Submitting Print Jobs through the Infoprint Manager LPD

To submit jobs to the Infoprint Manager LPD with 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 must make sure that your LPR client supports `-o` options. Sample code for an LPR client called **lprafp** is provided with IBM Infoprint Manager for AIX and is available as a free download from the IBM Printing Systems website at <http://www.ibm.com/printers>. On the IBM Printing Systems home page, click **Support** in the left hand navigation bar, then click **Downloads, fixes, drivers, and updates**, and then **Tools (Unsupported ASIS)**. Find the **LPR for AFP with -o options** link under the **Windows** heading. The package includes sample code and executable forms of the `lprafp` client for the Windows and AIX platforms. You can compile this code to use it on other platforms as well.

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

Preparing to Submit Print Jobs

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

To modify the mapping file do the following.

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

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

```
* DEBUG
```

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

Submitting Print Jobs

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

Chapter 14. Setting Up Gateway Printing

If you do not want to install Infoprint Select on all of your client workstations, you can use Infoprint gateways to submit print jobs to Infoprint Manager instead.

There are two kinds of Infoprint gateways:

- 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.
- 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 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.

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.

Chapter 15. Installing the AFP Driver

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

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

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

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

Unpacking AFP driver files

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

On **Windows NT** type:
`ibmafnt.exe c:\path /d`

On **Windows 2000** type:
`ibmaf2000.exe c:\path /d`

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

11. Press **Enter**.

The files will be unpacked into the directory.

Installing the AFP driver

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

Notes:

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

Installing the Infoprint AFP Driver on a Windows NT system

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

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

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

Installing the Infoprint AFP Driver on a Windows 2000 system

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

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

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

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

Notices

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

Year 2000 Ready

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

Index

Special Characters

\afpdriver\AFP\English directory 78
\win95\system directory 77
\windows\system directory 77
\winnt\system32 directory 79, 81
-o options 83

Numerics

4159 Model 001 S/390 Parallel Channel
Emulator Card
 bus/tag cable 18
 description 13
 diagnostics disk 17
 installing
 bus/tag cable 18
 first card 17
 multiple cards 21
 limitations 16, 30
 printer connection 22
 testing
 diagnostics disk 17
 installation and operation 19
 printer connection 22

A

actual destinations
 attachment types 29
 BSD
 creating 47
 worksheet 47
 creating 39
 destination support systems 27
 for printing from host systems 28, 29
 for printing from PC-based applications 28
 IPP
 creating 49
 worksheet 49
 passthrough
 worksheet 46
 Passthrough
 creating 45
 PSF channel
 creating 41
 worksheet 41
 PSF command
 creating 42
 worksheet 43
 PSF Direct only channel
 creating 51
 worksheet 51
 PSF Direct only non-IPDS
 creating 51
 worksheet 51
 PSF Direct only TCP/IP
 creating 50
 worksheet 50

actual destinations (*continued*)
 PSF other-driver
 creating 44
 worksheet 44
 PSF TCP/IP
 creating 39
 worksheet 40
Add Printer Wizard 30, 44, 45, 85
adfonts.mfm file 76
advanced view of Infoprint Manager GUI
 when to use 63, 64
AFP Driver
 description 87
 installing 87
afpdrivers_readme_101599.txt file 78
attachment types
 channel
 description 30
 command
 description 30
 other-driver
 description 30
 TCP/IP
 description 29

B

basic view of Infoprint Manager GUI
 when to use 63, 64
books
 on CD-ROM 4
BSD destination support system (DSS)
 description 27
BSD printer
 creating 47
 worksheet 47
bus/tag cable
 IBM 4159 Model 001 S/390 Parallel Channel Emulator Card 18

C

cable
 IBM 4159 Model 001 S/390 Parallel Channel Emulator Card 18
CD-ROMs 3
changing language for Infoprint Manager Server 10
channel attachment
 description 30
command attachment
 description 30
commands
 Infoprint Select 71
 lpr 27, 43, 48
 pdclean 71
 pdcreate 71
 pddelete 71
 pddisable 71
 pdenable 71

commands (*continued*)
 pdls 71
 pdmod 71
 pdpause 71
 pdpr 71
 pdpromote 71
 pdq 71
 pdreorder 71
 pdresubmit 71
 pdresume 71
 pdrm 71
 pdset 71
 pdshutdown 71
 pdspace 71
configuring
 cutter-trimmer-stacker 55
 Infoprint Select 74
 server 73
 TCP/IP 4
connection
 IBM 4159 Model 001 S/390 Parallel Channel Emulator Card 22
Create Printer Wizard 40, 42, 44, 45, 47, 48, 49
creating
 actual destinations 39
 BSD printer 47
 IPP printer 49
 MVS Download host receiver 52
 Passthrough printer 45
 PSF channel printer 41
 PSF command printer 42
 PSF Direct host receiver 52
 PSF Direct only channel printer 51
 PSF Direct only non-IPDS printer 51
 PSF Direct only TCP/IP printer 50
 PSF other-driver printer 44
 PSF TCP/IP printer 39
cutter-trimmer-stacker
 configuring 55

D

DIAG7100 19
diagnostics disk
 IBM 4159 Model 001 S/390 Parallel Channel Emulator Card 17
directories
 \afpdriver\AFP\English 78
 \win95\system 77
 \windows\system 77
 \winnt\system32 79, 81
distributed view of Infoprint Manager GUI
 when to use 63, 64
documentation
 on CD-ROM 4
downloading
 Infoprint Manager Line Printer Daemon (LPD) 83

DSS (destination support system)
 BSD 27
 IPP 27
 Passthrough 27
 PSF 27

E

environment variables
 PATH 61, 67

F

files
 adfonts.mfm 76
 afpdrivers_readme_101599.txt 78
 pscript.dll 79, 81
fonts
 Morisawa 4
 supplied with Infoprint Manager 4
ftp site for fixes 11

G

gateway printers 23
gateways
 IPP gateway
 adding printer to desktop 85
 enabling 53
 Windows gateway printer
 adding to desktop 85
 creating 53
Generic / Text Only 25
Generic/Text Only driver 45
GUIs (graphical user interfaces)
 Infoprint Manager GUI
 installing 61
 starting 65
 uninstalling 66

H

hardware
 cutter-trimmer-stacker
 configuring 55
 IBM 4159 Model 001 S/390 Parallel
 Channel Emulator Card
 description 13
 diagnostics disk 17
 installing bus/tag cable 18
 installing first card 17
 installing multiple cards 21
 limitations 16, 30
 testing installation and
 operation 19
 testing printer connection 22
 IBM Infoprint 4000 Printer
 synchronizing 55
host receivers
 MVS Download
 creating 52
 worksheet 53
 PSF Direct
 creating 52
 worksheet 52

host systems
 selecting a DSS for printing from 28,
 29

I

IBM 4159 Model 001 S/390 Parallel
 Channel Emulator Card
 bus/tag cable 18
 description 13
 diagnostics disk 17
 installing
 bus/tag cable 18
 first card 17
 multiple cards 21
 limitations 16, 30
 printer connection 22
 testing
 diagnostics disk 17
 installation and operation 19
 printer connection 22
IBM Infoprint 4000 Printer
 synchronizing 55
IBM TCP/IP Network Port Monitor 25
Infoprint 4000 Printer
 synchronizing 55
Infoprint AFP Driver
 description 87
 installing 87
Infoprint Manager
 CD-ROMs 3
 GUI
 installing 61
 uninstalling 66
 publications 4
 server
 installing 9
Infoprint Manager Administration GUI
 installing 61
 starting 65
 uninstalling 66
Infoprint Manager GUI
 installing 61
 starting 65
 uninstalling 66
 views 63, 64
Infoprint Manager Line Printer Daemon
 (LPD)
 description 83
 using 83
Infoprint Manager Management Console
 starting 38
Infoprint Manager Notifications
 description 67
 downloading 68
 installing 67
 starting 68
Infoprint Manager Operations GUI
 installing 61
 starting 65
 uninstalling 66
Infoprint Manager Server
 changing language 10
 setting language 10
Infoprint Port Monitor 45
Infoprint Select
 alternatives to installing 53

Infoprint Select (*continued*)
 commands 71
 configuring
 clients 74
 server 73
 description 71
 installing 71
 printers
 Windows 2000, first printer 80
 Windows 95/98, additional
 printers 77
 Windows 95/98, first printer 75
 Windows NT, additional
 printers 79
 Windows NT, first printer 78
 Windows NT/2000, additional
 printers 81
 installing
 AFP Driver 87
 IBM 4159 Model 001 S/390 Parallel
 Channel Emulator Card
 bus/tag cable 18
 first card 17
 multiple cards 21
 Infoprint Manager GUI 61
 Infoprint Manager Notifications 67
 Infoprint Manager server 9
 Infoprint Select 71
 JRE 61, 67
 non-English operating systems
 message ramifications 9
 upgrade 7
Internet Print Protocol (IPP) destination
 support system (DSS)
 description 27
IPP gateway
 adding printer to desktop 85
 enabling 53
IPP printer
 creating 49
 worksheet 49

J

Japanese fonts 4
jobs
 LPR/LPD 83
 printing test 57
JRE (Java Runtime Environment)
 installing 61, 67

L

LAN connection
 worksheet 4
limitations
 IBM 4159 Model 001 S/390 Parallel
 Channel Emulator Card 16, 30
LPD
 description 83
 Microsoft TCP/IP Printing LPD 83
 using 83
LPR 83
lpr command 27, 43, 48

M

- manuals
 - on CD-ROM 4
- media
 - cutter-trimmer-stacker 55
 - IBM Infoprint 4000 printer 55
- Microsoft TCP/IP Printing LPD 83
- Morisawa fonts 4
- MVS Download
 - selecting a DSS for printing from 28
- MVS Download host receiver
 - creating 52
 - worksheet 53

N

- non-English operating systems
 - installing 9
 - message ramifications 9

O

- optional features
 - PPFA for Windows 4
- other-driver attachment
 - description 30

P

- Page Printer Formatting Aid for Windows 4
- Passthrough destination support system (DSS)
 - description 27
- passthrough printer
 - worksheet 46
- Passthrough printer 23, 25
 - creating 45
- PATH environment variable 61, 67
- PC
 - selecting a DSS for printing from 28
- pdclean command 71
- pdcreate command 71
- pddelete command 71
- pddisable command 71
- pdenable command 71
- pdl command 71
- pdmod command 71
- pdpause command 71
- pdpr command 71
- pdpromote command 71
- pdq command 71
- pdreorder command 71
- pdresubmit command 71
- pdresume command 71
- pdrm command 71
- pdset command 71
- pdshutdown command 71
- pdspace command 71
- phone numbers for SupportLine (U.S.) 11
- port monitor 23
 - IBM TCP/IP Network Port Monitor 25
- PPFA 4
- printer connection
 - IBM 4159 Model 001 S/390 Parallel Channel Emulator Card 22
- printer devices
 - IBM Infoprint 4000 Printer
 - synchronizing 55
- printer driver
 - Generic / Text Only 25
- printer drivers 23
 - Generic/Text Only 45
- printer network connection
 - worksheet 6
- printers
 - Infoprint Select
 - Windows 2000, first printer 80
 - Windows 95/98, additional printers 77
 - Windows 95/98, first printer 75
 - Windows NT, additional printers 79
 - Windows NT, first printer 78
 - Windows NT/2000, additional printers 81
- printing 28
 - from host systems
 - selecting a DSS 28, 29
 - from PC-based applications
 - selecting a DSS 28
 - test job 57
- pscript.dll file 79, 81
- PSF actual destinations
 - attachment types 29
- PSF channel printer
 - creating 41
 - worksheet 41
- PSF command printer
 - creating 42
 - worksheet 43
- PSF destination support system (DSS)
 - description 27
- PSF Direct
 - channel printer
 - creating 51
 - non-IPDS printer
 - creating 51
 - selecting a DSS for printing from 28, 29
 - TCP/IP printer
 - creating 50
 - worksheet 50
- PSF Direct host receiver
 - creating 52
 - worksheet 52
- PSF Direct only channel printer
 - creating 51
 - worksheet 51
- PSF Direct only non-IPDS printer
 - creating 51
 - worksheet 51
- PSF Direct only TCP/IP printer
 - creating 50
 - worksheet 50
- PSF other-driver printer
 - creating 44
 - worksheet 44
- PSF TCP/IP printer
 - creating 39

- PSF TCP/IP printer (*continued*)
 - worksheet 40
- publications
 - on CD-ROM 4

R

- reinstalling 7
- removing
 - Infoprint Manager GUI 66
 - Infoprint Manager Notifications 68

S

- selecting a DSS
 - for printing from host systems 28, 29
 - for printing from PC-based applications 28
- server software
 - configuring 73
 - installing 9
- setting language for Infoprint Manager Server
 - Windows 2000 MLV system 10
- starting
 - Infoprint Manager GUI 65
 - Infoprint Manager Notifications 68
- starting Infoprint Manager Management Console 38
- submission
 - LPR/LPD 83
- SupportLine
 - contract 11
 - phone numbers 11
 - requested information 11
- synchronizing
 - IBM Infoprint 4000 Printer 55

T

- TCP/IP
 - configuring 4
- TCP/IP attachment
 - description 29
- test job
 - printing 57
- testing
 - IBM 4159 Model 001 S/390 Parallel Channel Emulator Card
 - creating diagnostics disk 17
 - installation and operation 19
 - printer connection 22

U

- U.S. SupportLine phone numbers 11
- uninstalling
 - Infoprint Manager GUI 66
 - Infoprint Manager Notifications 68

W

- Windows 2000 MLV system
 - setting language for Infoprint Manager Server 10

- Windows gateway printer 23, 24
 - adding to desktop 85
 - creating 53
- Windows Port Monitor 45
- wizards
 - Add Printer 30, 44, 45, 85
 - Create Printer 40, 42, 44, 45, 47, 48, 49
- worksheets
 - BSD printer 47
 - IPP printer 49
 - LAN connection 4
 - MVS Download host receiver 53
 - passthrough printer 46
 - printer network connection 6
 - PSF channel printer 41
 - PSF command printer 43
 - PSF Direct host receiver 52
 - PSF Direct only channel printer 51
 - PSF Direct only non-IPDS printer 51
 - PSF Direct only TCP/IP printer 50
 - PSF other-driver printer 44
 - PSF TCP/IP printer 40

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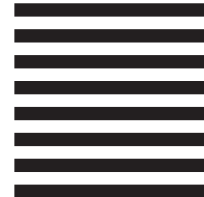
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