

InfoPrint Manager for AIX: Getting Started

Version 4 Release 3

G550-1061-01

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G550-1061-01

Note:

Before using this information and the product it supports, read the information in "Notices" on page 161.

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This edition applies to InfoPrint Manager for AIX, Version 4 Release 3 Modification 0 with PTF UO00917 and to all subsequent releases and modifications until otherwise indicated in new editions.

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Part 1. Introduction

Chapter 1. About this publication

This publication describes how to initially configure and begin using InfoPrint® Manager for AIX®. It also describes how to install and begin using the various client components that InfoPrint uses to manage your printing environment. By applying the procedures and tasks in this manual, you can set up your InfoPrint environment to bring centralized control to your printing environment and help you maximize the capabilities of the printers you possess.

Who should read this publication

This publication contains information for the administrators who create and configure the InfoPrint environment. It also contains some information for the operators who monitor the InfoPrint server. Before you perform any of the steps documented in this publication, you must understand the general features and requirements of InfoPrint Manager for AIX. You can find this information in *InfoPrint Manager for AIX: Introduction and Planning Guide*. Consult this publication to determine how InfoPrint Manager for AIX Version 4.3 enables you to best manage a diverse print environment from one central location.

Once you have used this publication to install on both the InfoPrint AIX server (Part 2, “Getting started with server systems,” on page 7) and on the client systems that apply to your print installation (Part 3, “Getting started with client systems,” on page 77), you will have an operational InfoPrint Manager print environment. At this point, you should consult the *InfoPrint Manager for AIX: Procedures* for advanced configuration and operations tasks, and the *InfoPrint Manager: Reference* for information about the various InfoPrint commands, utilities, and attributes available to you while maintaining the system.

Most recent information

For the most recent information about InfoPrint Manager, go to the InfoPrint Solutions Company Web site at <http://www.infoprint.com>.

Chapter 2. The InfoPrint publication library

For the most current information, see the InfoPrint Solutions Company Web site at <http://www.infoprint.com>.

InfoPrint Manager common publication library

These publications are common to both InfoPrint Manager for AIX and InfoPrint Manager for Windows®:

- *InfoPrint Manager: SAP R/3 Planning and Configuration Guide*, S550-1051. For print administrators who need to create and configure both the SAP R/3 environment, we recommend that users possess a detailed knowledge of a SAP R/3 environment, as well as administering and maintaining either AIX or Windows operating systems. This publication describes how a business enterprise that uses SAP R/3 can use either InfoPrint Manager for AIX or InfoPrint Manager for Windows to manage its print environment.
- *InfoPrint Manager: Reference*, S550-1052. For print administrators, operators, and application programmers with the need to do command-line functions. This publication describes the commands, utilities, transforms, attributes, and attribute values associated with InfoPrint.
- *InfoPrint Manager: PSF and Server Messages*, G550-1053. This publication lists the PSF and Server messages and explanations from InfoPrint Manager.
- *InfoPrint Manager Print-on-Demand Feature: Submit Express User's Guide*, S550-1054. This publication is for the user who installs, configures, and uses Submit Express on a Windows or Macintosh workstation. Although you can use this publication for general guidance in using Submit Express, you should use the online Help to find more detailed instructions.
- *InfoPrint Job Ticketer: Job Ticketer User's Guide*, S550-1055. This publication is a guide for using the InfoPrint Job Ticketer Web application. This guide provides descriptions of tasks and procedures that an end-user needs to know to set up their workstation to use the application, and then to create, layout, store, retrieve print jobs, and submit the jobs to a print server for printing.
- *InfoPrint Job Ticketer: Administrator's Guide*, S550-1056. This publication is a guide for system administrators who are responsible for the InfoPrint Job Ticketer Web application. This guide provides information about the Job Ticketer system requirements, installation and configuration, system maintenance, security, and problem determination.

InfoPrint Manager for AIX publication library

InfoPrint Manager for AIX includes publications in PDF format on a CD-ROM supplied with the product.

The publications for InfoPrint Manager for AIX are:

- *InfoPrint Manager for AIX: Introduction and Planning Guide*, G550-1060. This publication gives an overview of InfoPrint Manager for AIX, introduces the concepts, and helps you prepare to use it. It addresses migration from previous versions of the product. And it explains the differences between the AIX and Windows versions of InfoPrint Manager.

- *InfoPrint Manager for AIX: Installation Instructions*, G550-1059. This publication describes how to install InfoPrint Manager for AIX 4.3. These instructions explain the procedures for local and remote installations.
- *InfoPrint Manager for AIX: Getting Started*, G550-1061. This publication helps you install and configure InfoPrint Manager for AIX. It focuses on the software configuration of server and client system.
- *InfoPrint Manager for AIX: Configuration and Tuning Guide*, S550-1062. This publication provides information about configuring and tuning the InfoPrint Manager for AIX, Version 4.3. This book is designed for the InfoPrint Manager administrator who needs to understand how to configure and tune an InfoPrint Manager system. It helps administrators to evaluate, develop, and maintain both a logical and hardware configuration for their environment.
- *Guidelines for Installing InfoPrint Manager for AIX 4.2 in an HACMP Configuration*, G550-1063. This publication helps you install and configure HACMP™ with InfoPrint Manager for AIX. It also describes how to use HACMP with InfoPrint Manager for AIX.
- *InfoPrint Manager for AIX: Using Generalized Fax*, S550-1064. This publication describes how to configure and use the Generalized Fax support that is included with InfoPrint Manager for AIX. This publication includes information about sending and receiving faxes from an InfoPrint Manager server.
- *InfoPrint Manager for AIX: Procedures*, G550-1066. This publication describes how to set up an InfoPrint environment, to submit print jobs, to schedule jobs, and to manage the print environment.

InfoPrint Manager for Windows publication library

InfoPrint Manager for Windows includes publications in PDF format on a CD-ROM supplied with the product.

The publications for InfoPrint Manager for Windows are:

- *InfoPrint Manager for Windows: Introduction and Planning Guide*, G550-1071. This publication gives an overview of InfoPrint Manager for Windows, introduces its concepts, and helps you prepare to use it. It describes features of this product. Finally, this publication explains the differences between the AIX and Windows versions of InfoPrint.
- *InfoPrint Manager for Windows: Getting Started*, G550-1072. This publication helps you install and configure InfoPrint Manager for Windows. It focuses primarily on server and client system software configuration.
- *InfoPrint Manager for Windows: Procedures*, G550-1073. This publication describes the primary tasks necessary for setting up an InfoPrint environment, submitting print jobs, scheduling jobs, and managing the print environment.

Related publications

The related publications are:

- *AFP Conversion and Indexing Facility User's Guide*, S550-0436.
- *Page Printer Formatting Aid: User's Guide*, S550-0801.
- *Using OpenType Fonts in an AFP System*, G544-5876.

Part 2. Getting started with server systems

Chapter 3. Installing InfoPrint Manager for AIX service updates

For information regarding the installation of the base InfoPrint Manager software, see the *InfoPrint Manager for AIX: Installation Instructions* guide. For information regarding the installation of the clients, see the appropriate section for your client operating system in this book. The following procedures are essential for applying service updates to your InfoPrint Manager for AIX product. If you did not install InfoPrint from the most recent service CD-ROM, it is important that you install the latest service at this time.

Important

If you have installed InfoPrint Manager for AIX using any of the remote installation procedures described in the *InfoPrint Manager for AIX: Installation Instructions*, you should use the `mk_ip_remote` script (see *InfoPrint Manager for AIX: Installation Instructions*) to copy all of the service code to the InfoPrint Software Server, and then enter this command from an AIX command line:

```
/ip_remote/ip_update -s /ip_remote
```

Once this command has completed, you can apply service to remote systems by following directions in “Installing APAR Service Updates (PTFs) with ip_update” on page 11.

Obtaining the current service level

Once you have installed InfoPrint Manager for AIX, you need to regularly apply the latest product updates. The updates are published on CD-ROM and also posted to the World Wide Web. To obtain the current service level for InfoPrint Manager for AIX 4.3, access the InfoPrint Manager Service update page at <http://www.infoprint.com>. To download and install the service updates from the Web instead of from the CD-ROM, simply follow the instructions that are posted online with the updates.

Installing server software and features from the current APAR Service CD-ROM

To install the latest service updates for InfoPrint Manager using the InfoPrint installer GUI and the latest APAR Service CD-ROM, do this:

1. Log into the AIX system as **root**.
2. Insert the *InfoPrint Manager APAR Service CD-ROM* into the CD-ROM drive.
3. Make sure that no jobs are currently active on this server (any active jobs will be interrupted by the service process).
4. Open a terminal window.

If you are using CDE, you can open a terminal window by clicking on the terminal icon contained on the front panel. The front panel is the task bar that appears at the bottom of the screen. By default, the terminal icon is contained in a menu above the text editor icon that appears on the front panel.

5. Follow these steps:

- a. Type this on the AIX command line: **smit cdrfs** or **smitty cdrfs** (for the ASCII version).
 - b. Select **Add a CDROM File System** from the list of choices presented.
 - c. Click **List** and select your CD-ROM device name (**cd0**, for example).
 - d. Type this in the **MOUNT POINT** field: **/cdrom**.
 - e. Click **OK**. The running person will raise their arms to indicate success. If the running person instead falls down and you see **crfs: 0506-909 /cdrom file system already exists**, do not interpret this as a failure. The existing **/cdrom** file system should be usable.
 - f. Press the **F12** key to exit SMIT.
6. Type this at the command line: **mount /cdrom**.

At this point, you are ready to begin following the directions provided in “Applying service.”

Applying service

Prior to applying APAR service, it is strongly recommended that you back up your InfoPrint Manager system completely as described in *InfoPrint Manager for AIX: Installation Instructions*. Backups may be required to restore your system in the event that this APAR service must be rejected in the future. See “Rejecting service” on page 11 for details on this process.

There are two methods of applying service updates to InfoPrint Manager for AIX 4.3:

- “Installing APAR Service Updates (PTFs) locally with the InfoPrint Installer.”
- “Installing APAR Service Updates (PTFs) with ip_update” on page 11.

Installing APAR Service Updates (PTFs) locally with the InfoPrint Installer

Once you have completed the steps described in “Installing server software and features from the current APAR Service CD-ROM” on page 9, you are ready to begin using the InfoPrint Installer.

1. To install the InfoPrint Manager updates, enter this command: **/cdrom/setup**. The installer guides you through the installation and configuration processes. Because you might be prompted to insert the *InfoPrint Manager for AIX: Base Server* CD-ROM, LCD4-5654, after service has been applied, you should keep these discs available.
2. Select your preferred language when prompted.
3. The Installer advises users to back up the system, using the guidelines described in *InfoPrint Manager for AIX: Installation Instructions*. Click **Next** to proceed.
4. Select **Apply Service**. Click **Next** to proceed.
5. You are presented with a confirmation summary that service will be applied. When you click **Install**, the service will be applied. This might take several minutes.

Installing APAR Service Updates (PTFs) with ip_update

The **ip_update** script can be used from the AIX command line to install service updates for InfoPrint Manager. You can use **ip_update** to install service updates instead of the InfoPrint Installer if you would prefer using the command line.

To apply service using the **ip_update** script, do this:

1. Log on to your system as **root**.
2. Insert the InfoPrint Manager APAR Service CD-ROM into your CD-ROM drive.
3. Make sure that no jobs are currently active on this server (any active jobs will be interrupted by the service process).
4. Open a terminal window.

If you are using CDE, you may open a terminal window by clicking on the terminal icon contained in the front panel. The front panel is the task bar that appears at the bottom of the screen. By default, the terminal icon is contained in a popup menu above the text editor icon that appears on the front screen.

5. Follow this procedure to prepare your CD-ROM drive and install the updates:
 - a. Type the following on the AIX command line: **smit cdrfs**.
 - b. Select **Add a CDRom File System** from the list of choices presented.
 - c. Click **List** and select your CD-ROM device name (**cd0**, for example).
 - d. Type the following in the **MOUNT POINT** field: **/cdrom**.
 - e. Click **OK**. The running person icon will raise its arms to indicate success. If it instead falls down and you see **crfs: 0506-909 /cdrom file system already exists**, do not interpret this as a failure. The existing **/cdrom** file system should be usable.
 - f. Press the **F12** key to exit SMIT.
6. Enter the following commands at the command line:
 - a. **mount /cdrom**
 - b. **/cdrom/ip_update**
The update installation progress displays.
 - c. **umount /cdrom**

You may then push the eject button on the CD-ROM drive to retrieve the CD-ROM.

Rejecting service

If you have problems with a service update for InfoPrint Manager software, it is possible to revert to the last applied level installed on the system. To do so, however, you must make sure that a backup of all previously mentioned InfoPrint objects was made at a time when the printing system was at its previous level.

To reject this (and all previously applied but not committed) service, use this procedure:

1. Log on to your system as **root**.
2. Insert the InfoPrint Manager APAR service CD-ROM into your CD-ROM drive.
This lets you access the latest version of the **ip_update** script that you should always use to reject an InfoPrint Manager for AIX service update.
3. Make sure that no jobs are currently active on this server. Any active jobs will be interrupted by the service process.

4. Open a terminal window.

If you are using CDE, you can open a terminal window by clicking on the terminal icon contained in the front screen (the front screen is the task bar that appears at the bottom of the screen). By default, the terminal icon is contained in a popup menu above the text editor icon that appears on the front screen.

5. Type this sequence at the command line:

- a. **mount /cdrom**
- b. **/cdrom/ip_update -r**
- c. **umount /cdrom**

If you encounter problems with your InfoPrint Manager system after rejecting APAR service, restore the directories and files listed in "Backing up InfoPrint Manager for AIX" in the *InfoPrint Manager for AIX: Installation Instructions* from backup media. These InfoPrint Manager directories and files can contain environment variables, objects, or any changed portions of the product.

Committing service

After successfully using your InfoPrint Manager software with the new updates installed for a trial period, we recommend that you commit the service level. Committing the service level frees disk resources. However, it will also make it impossible to revert to the committed level of software in use before applying this APAR service.

To commit this APAR service, log onto your system as root and type this command:

```
installp -cg ipr
```

Chapter 4. Getting started with InfoPrint Manager

This section provides information about post-installation activities on your InfoPrint Manager for AIX server.

Starting InfoPrint Manager

After you have completed the installation of InfoPrint and any optional features and rebooted the system, the InfoPrint Manager server starts automatically. You can then start the InfoPrint Manager Administration GUI to view the initial configuration of your system.

You can start the GUI either from the front panel or from the command line.

From the front panel on an AIX system:

1. Double-click **Application Manager** on the front panel. The **Application Manager** window displays.

Note: The **Application Manager** icon looks like an open file drawer with a calculator visible.

2. Double-click the **InfoPrint** folder icon. The **Application Manager – InfoPrint** window displays.
3. Double-click **Administration InfoPrint**.

Important: After Daylight Savings Time changes, some customers have reported discrepancies in their server accounting logs and others have reported job submission failures. The problem was resolved by stopping and starting the InfoPrint Manager **server**. If you are already experiencing these symptoms or want to avoid them in the future, arrange to have your servers restarted immediately following a Daylight Savings Time change.

If you have installed the Print-on-Demand option with the Basic Administration GUI:

1. Click the arrow above the **InfoPrint** icon to display the InfoPrint dialog.
2. Click Basic Administration.

To start the InfoPrint Manager Administration GUI from the AIX command line, enter **ipguiadvadm**.

Enabling or disabling autostart

The InfoPrint Manager server starts automatically when the system reboots. You can enable or disable the autostart of any InfoPrint servers present on your AIX system.

Enabling autostart

To enable the autostart function on a server:

1. Invoke the SMIT panel directly from the AIX command line by specifying either **smit ipru_autostart** or **smitty ipru_autostart**, or access the **InfoPrintUtilities** main menu by:
 - If you do not have an **InfoPrint Manager** icon on your front panel, open the **InfoPrint** folder in the Application Manager and double click **InfoPrint SMIT**. Then click **InfoPrint Utilities**.
 - If you have an **InfoPrint Manager** icon on your front panel, open InfoPrint Manager's popup menu and click **InfoPrint SMIT** icon. Then click **InfoPrint Utilities**.
2. Click **Enable/Disable Autostart**.
3. Click **On** in response to the question: **Do you wish to turn autostart on or off?**
4. Click **List** and select the InfoPrint server's hostname that you wish to start automatically on reboot.
5. Enter the port number used to communicate with this server. (Leave this field blank to use the default port number.)
6. Click **List** and select the locale (language environment) that you want the server to run.
7. Click **OK**.

Disabling autostart

To disable autostart of a server, do these steps:

1. Invoke the SMIT panel directly from the AIX command line by specifying either **smit ipru_autostart** or **smitty ipru_autostart**. You can also access the **InfoPrint Utilities** main menu by:
 - If you do not have an **InfoPrint Manager** icon on your front panel, open the **InfoPrint** folder in the Application Manager and double-click **InfoPrint SMIT**. Then click **InfoPrint Utilities**.
 - If you have an **InfoPrint Manager** icon on your front panel, open InfoPrint Manager popup menu and click **InfoPrint SMIT**. Then click **InfoPrint Utilities**.
2. Click **Enable/Disable Autostart**.
3. Click **Off** in response to the question, **Do you wish to turn autostart on or off?**
4. If prompted, select the server you want to disable for autostart.

Adding or removing languages

The InfoPrint Installer installs U.S. English (**en_US**) filesets on all InfoPrint AIX servers. You can add support for an InfoPrint Manager language only if your AIX system has that language support installed. The following topics provide the procedures for adding base AIX support for a language and for adding and removing InfoPrint Manager language support.

Software prerequisites for translated versions of InfoPrint Manager

You must install language support from the AIX operating system CD-ROM, if it is not already installed, on to each AIX system that will run an InfoPrint server in a non-English supported language. InfoPrint Manager supports French, German, Italian, Spanish, Korean, and Japanese.

Note: To run InfoPrint Manager in a double-byte language like Japanese, you must configure your multilingual system so that the double-byte language is the default language.

Use the **locale -a** command to see if the base AIX support is installed for your language. If it is not installed, you must install it before proceeding further.

To install a language on an AIX operating system, use this procedure:

1. From an AIX command line, access the SMIT fastpath by specifying: **smit lang** or **smit lang**.
2. Select the **Add Additional Language Environments** option.
3. From the **Add Additional Language Environments** screen, click **List** next to the **CULTURAL convention to Install** field. Select the cultural convention that you want to install.

Note: Languages that are already installed on this AIX system do not appear in this list.

4. Click **List** next to the **LANGUAGE translation to install** field. Select the appropriate language.

Note: Languages that are already installed on this AIX system do not appear in this list.

5. Make sure that the **INPUT device/directory for software** field shows your CD-ROM drive.
6. Click **OK** to install the language and cultural conventions.

Note: For more information about installing different languages on your AIX operating system, access the **InfoExplorer** data base on your AIX operating system. Type **man info** for more information.

Adding an InfoPrint Manager language

To add support for a language to InfoPrint Manager, complete these steps:

1. Insert your InfoPrint product CD-ROM containing the language that you want to add.
2. Invoke the SMIT panel directly from the AIX command line by specifying either **smit ipru_langsupp** or **smit ipru_langsupp**, or access the **InfoPrint Utilities** main menu:
 - If you have an **InfoPrint Manager** icon on your front panel, open InfoPrint Manager's menu and click the **InfoPrint SMIT** icon. Then click **InfoPrint Utilities**.
 - If you do not have an **InfoPrint Manager** icon on your front panel, open the **InfoPrint** folder in the Application Manager and double click the **InfoPrint SMIT** icon. Then click **InfoPrint Utilities**.

3. Click **Add or Remove Languages**, then **Add Language**.
4. Select one or more locales to add from the list presented. The list only contains locales that your system is able to support.
5. Click **OK**.

Note: Make sure that you have installed service from the latest APAR Service CD-ROM.

Removing a language

To remove support for a language from InfoPrint Manager, complete these steps:

1. Invoke the SMIT panel directly from the AIX command line by specifying either **smit ipru_langsupp** or **smitty ipru_langsupp**, or access the **InfoPrint Utilities** main menu:
 - If you have an **InfoPrint Manager** icon on your front panel, open InfoPrint Manager's menu and click **InfoPrint SMIT**. Then click **InfoPrint Utilities**.
 - If you do not have an **InfoPrint Manager** icon on your front panel, open the **InfoPrint** folder in the Application Manager and double click **InfoPrint SMIT**. Then click **InfoPrint Utilities**.
2. Click **Add or Remove Languages**, then **Remove Language**.
3. Select one or more locales to remove from the list presented.
4. Click **OK**.

Important: The English locale cannot be removed because some default messages must be presented in English.

Installing secondary InfoPrint servers

InfoPrint Manager lets you configure multiple AIX systems to work together to meet your printing needs. To install secondary servers, in an InfoPrint environment, you will be using the Network File System (NFS) to enable communication between servers. To make this work correctly, you must use one of these two procedures:

- "Installing secondary InfoPrint servers using NFS (no job ticketing)."
- "Installing secondary InfoPrint servers using NFS (with job ticketing)" on page 17.

Job ticketing is used with the Print-on-Demand (POD) Feature only. If you are not using POD and InfoPrint Submit Express or InfoPrint Job Ticketer, see "Installing secondary InfoPrint servers using NFS (no job ticketing)."

Installing secondary InfoPrint servers using NFS (no job ticketing)

To set up multiple InfoPrint servers that do not require full job ticketing services, complete these steps:

1. Complete the installation of the primary InfoPrint server using the most recent APAR Service CD-ROM.
2. Complete the following configuration procedure on the primary InfoPrint server:

- a. Either invoke the SMIT panel directly from the AIX command line by specifying either **smit iprufst_secondary** or **smitty iprufst_secondary**, or access the **InfoPrint Utilities** main menu:
 - If you have an **InfoPrint Manager** icon on your front panel, open InfoPrint Manager's menu and click **InfoPrint SMIT**. Then click **InfoPrint Utilities**. Click **Configure Secondary Servers (NFS)**.
 - If you do not have an **InfoPrint Manager** icon on your front panel, open the **InfoPrint** folder in the Application Manager and double click **InfoPrint SMIT**. Then click **InfoPrint Utilities**. Click **Configure Secondary Servers (NFS)**.
- b. Click **Link from Primary Server to Secondary Server**.
- c. Provide the information about your secondary system as prompted.

Note: If you are using Domain Name Server (DNS) or Network Information Service (NIS) name resolution services, be sure to update these services with new server information before proceeding. DNS and NIS are centralized services used to resolve hostnames into IP addresses. Whenever a new machine is added to the network, these services must be advised of the hostname and IP address of the new system. These services might not be used on your LAN. If you are unsure about your network's name resolution services, contact your network administrator.

Important: Because the required field **Is /ipdata used for job ticketing?** defaults to **yes**, you need to change this value to **no**.

3. Complete the following procedure on each secondary server:
Run the InfoPrint Installer from the most recent APAR Service CD-ROM on each system. When you are presented with the primary server question screen, select **No** and click **Next**. You will be asked for the IP address of your primary InfoPrint Manager server. For more information about installing InfoPrint Manager, see *InfoPrint Manager for AIX: Installation Instructions*.

Installing secondary InfoPrint servers using NFS (with job ticketing)

To set up multiple InfoPrint servers with job ticketing fully enabled:

1. Complete the installation of the primary InfoPrint server from the most recent APAR Service CD-ROM.
2. Run **InfoPrint Utilities** on the primary InfoPrint server as described in "Setting up the primary server."
3. Run **InfoPrint Utilities** on the secondary InfoPrint server as described in "Setting up the secondary servers" on page 18.

Note: You must set up the primary server before setting up the secondary server.

Setting up the primary server

1. Either invoke the SMIT panel directly from the AIX command line by specifying either **smit iprufst_secondary** or **smitty iprufst_secondary**, or access the **InfoPrint Utilities** main menu:
 - If you have an **InfoPrint Manager** icon on your front panel, open InfoPrint Manager's menu and click **InfoPrint SMIT**. Then click **InfoPrint Utilities**. Click **Configure Secondary Servers (NFS)**.

- If you do not have an **InfoPrint Manager** icon on your front panel, open the **InfoPrint** folder in the Application Manager and double click **InfoPrint SMIT**. Then click **InfoPrint Utilities**. Click **Configure Secondary Servers (NFS)**.
2. Click **Link from Primary Server to Secondary Server**. Provide the information about your secondary system as prompted.

Important: If the **/ipdata** file system was not allocated on the primary server, you must perform the necessary steps to make **/ipdata** accessible to all InfoPrint servers before proceeding. This is necessary, for example, if you have elected to use a PC to store shared information instead of your primary server.

Note: If you are using Domain Name Server (DNS) or Network Information Service (NIS) name resolution services, be sure to update these services with all of the new server information before proceeding. DNS and NIS are centralized services used to resolve hostnames into IP addresses. When a new machine is added to the network, these services must be advised of the hostname and IP address of the new system. These services might be used on your LAN. If you are unsure about your network's name resolution services, contact your network administrator.

Setting up the secondary servers

Perform these steps for each secondary server:

1. Run the InfoPrint Installer from the most recent APAR Service CD-ROM.
2. Access the **InfoPrint Utilities** main menu:
 - Invoking the SMIT interface directly from the AIX command line by specifying either **smit iprufst_secondary** or **smitty iprufst_secondary**.
 - If you have an **InfoPrint Manager** icon on your front panel, open InfoPrint Manager's menu and click **InfoPrint SMIT**. Then click **InfoPrint Utilities**. Click **Configure Secondary Servers (NFS)**.
 - If you do not have an **InfoPrint Manager** icon on your front panel, open the **InfoPrint** folder in the Application Manager and double click **InfoPrint SMIT**. Then click **InfoPrint Utilities**. Click **Configure Secondary Servers (NFS)**.
3. Click **Link from Secondary Server to Primary Server**. Provide the information about your primary system as prompted.

Note: If any of the procedures above fail because the user and group identifiers could not be set, you must set these values manually so that they are the same on all servers in the namespace. To do this, follow these steps:

1. Invoke **SMIT** or **smitty**.
2. Click **InfoPrint Printing System**, then **Troubleshooting**, then **Standardize Default Users**.
3. Enter ID numbers as prompted.

Perform this procedure on both primary and secondary systems until the same IDs are in use by all servers in the namespace.

Installing additional features on an existing InfoPrint Manager for AIX system

If you have previously installed InfoPrint Manager for AIX on your AIX server, you can use the InfoPrint Installer to add additional product features. This scenario can be used either locally or remotely (see *InfoPrint Manager for AIX: Installation Instructions* for more information regarding remote installations).

Important: You must use the most recent APAR Service CD-ROM to install features.

1. Log on to the AIX system as **root**.
2. Insert the most recent APAR Service CD-ROM into the CD-ROM drive.
3. Open a terminal window.

If you are using the Common Desktop Environment (CDE), you can open a terminal window by clicking on the terminal icon contained in the front panel. The front panel is the task bar that appears at the bottom of the screen. By default, the terminal icon is contained in a menu above the text editor icon that appears on the front panel.

4. Type this at the command line:**mount /cdrom**
5. Enter this command to install InfoPrint Manager features: **/cdrom/setup**
6. Select your preferred language when prompted.
7. The Installer advises you to back up the system, using the guidelines described in *InfoPrint Manager for AIX: Installation Instructions*.
Click **Next** to proceed.
8. The installation type screen is displayed. Click **Add a Feature**
Click **Next** to proceed.
9. The Installer displays the feature selection screen. Select the features that you want to install. Separate feature CD-ROMs are required for each feature.
Click **Next**. You might be asked for feature CD-ROMS at this time, depending upon your selections.
10. If you are installing Workgroup, Low, Medium, Workgroup, or High speed printer features, you will be asked how many printers you want to install. This will be the number of printers that you have purchased licenses to support. You are then presented with a summary of your installation selections. If any of this information is incorrect, you can click **Back** to return to the appropriate screen and correct the problem. Click **Install**.
11. If you have installed the Print-on-Demand feature (POD), make sure that you consult the appropriate documentation to make sure that POD is configured correctly.
12. When feature installation is complete, click **Finish** to exit the InfoPrint Installer. The system must be restarted before the installation is complete. If you select **Yes, restart my computer**, the AIX system shuts down immediately without any message to other users that a shutdown will occur. Regardless of your selection, the InfoPrint Installer unmounts the CD-ROM, which you can then remove from the CD-ROM drive.

Installing clients on other AIX systems

This section contains a brief description of the command line procedure required for installing the AIX InfoPrint client, the Notification client, and the SAP clients on AIX servers that are not running InfoPrint Manager, but need to communicate with an InfoPrint AIX server.

Note: For each of these commands to run successfully, you must first mount the *InfoPrint Manager: Common Clients* CD-ROM, LCD4-5642, on to your AIX server.

To install both the AIX client and the Notification client on a non-InfoPrint AIX server, enter this command:

```
/cdrom/setup -c -n server_name -p port_number
```

Where *server_name* is the hostname or IP address of the InfoPrint Manager server system with which this AIX client system will communicate. Where *port_number* is the port that the server will be using for InfoPrint communication. Optionally, you can use the **-P** flag to specify a default logical destination for job submission, and the **-L** flag to indicate a language preference for InfoPrint messages.

For more information, see Chapter 13, “Using the InfoPrint AIX client,” on page 109.

To install only the Notification client on a non-InfoPrint AIX server, enter this command:

```
/cdrom/setup -y -n server_name
```

For a complete description of the installation process, see Chapter 13, “Using the InfoPrint AIX client,” on page 109.

To install the SAP clients on a non-InfoPrint AIX server, enter this command:

```
/cdrom/setup -x
```

For a complete description of the SAP client installation process, see *SAP R/3 Planning and Configuration Guide*.

Chapter 5. Installing and using InfoPrint Manager Notifications

InfoPrint Manager Notifications is the default application that you can use to receive messages about InfoPrint objects. InfoPrint objects, for example, can be print jobs, destinations, queues, and servers. Using Notifications, InfoPrint Manager can send you a message when a job is finished printing, or it can let you know if there is a problem with the printer. There are also other notification methods. For more information, see "Using InfoPrint Manager Notifications" in *InfoPrint Manager for AIX: Procedures*.

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

The InfoPrint Manager Notifications server and Notifications client software are both automatically installed on the same system that runs your InfoPrint Manager server software. In addition, you can install the Notifications client on any other Windows or AIX system that is connected to the same network. Follow the procedures in this chapter to install and use the InfoPrint Manager Notifications client to receive messages from your InfoPrint Manager server.

For InfoPrint Manager Notifications to function properly, only one InfoPrint Manager Notifications server can be running in the same InfoPrint Manager namespace. For information about handling the Notification server in InfoPrint Manager multiple-server environments, see "Multi-server environments" on page 24. Both InfoPrint Manager for AIX and InfoPrint Manager for Windows should automatically start a Notification server on port **8200**, but you should verify that it is running. Each Notification client defaults to receive notifications from a server named **notification** on port **8200**.

Important: Your site network administrator should add the name **notification** as an alias for the InfoPrint Manager Notifications server to the site's Domain Name Service (DNS) server. Once this is done, the default settings in all of the Notification clients should work. If you ever move the Notification server to another host, you only need to update the notification alias on the DNS server for the default settings in all the Notification clients to work.

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

For the InfoPrint Manager Notifications client to receive notification messages from the InfoPrint Manager server, the delivery address setting in the Notification client must match the delivery address in the notification profile of the InfoPrint Manager destination, job or other object.

Installing the software on a Windows client

To install the InfoPrint Manager Notifications software on a remote system:

1. Make sure that you have the latest service installed from the APAR Service CD-ROM.

2. Insert the *InfoPrint Manager: Common Clients* CD-ROM, LCD4-5642, into the drive.
3. The install program starts automatically.

Note: If your install program does not start automatically or if your browser stops responding:

- a. Select **Start ->Run**.
 - b. Enter *D:\setup.html*, where *D* is your CD-ROM drive.
 - c. Click **OK**.
4. Click **Install Products**, and then click **InfoPrint Manager Notifications**.
 5. Follow the instructions on the installation screens to install the program.

Installing the software on an AIX system

The InfoPrint Notification client is installed on all InfoPrint AIX servers with the *InfoPrint Manager for AIX Base Server*, LCD4-5654.

InfoPrint Manager Notifications requires the IBM® 32-bit Runtime Environment for Windows, Java™ 2 Technology Edition, Version 5.0 SR6 or greater. The Runtime Environment must be at this level for running InfoPrint Manager Notifications.

Note: If you are using the InfoPrint Manager Notifications client to receive notifications from an InfoPrint Manager AIX server, you must start the client from the system that it is installed on. You cannot telnet into the AIX system where the notification client is installed from another system and try to start the Notification client.

To install the InfoPrint Notification client on an AIX system where you have not installed the InfoPrint server, follow these steps:

1. Make sure that you have the latest service installed from the APAR Service CD-ROM.
2. Log onto AIX as root.
3. Insert the *InfoPrint Manager: Common Clients* CD-ROM, LCD4-5642, into the drive.
4. If this is the first time you are installing software on this AIX system, create the **/cdrom** file system.
 - a. Start the System Management Interface Tool (SMIT).
 - To start the graphic version of SMIT, enter this command:
smit cdrfs
 - To start the ASCII version of SMIT, enter this command:
smitty cdrfs

The CD-ROM File Systems panel is displayed.

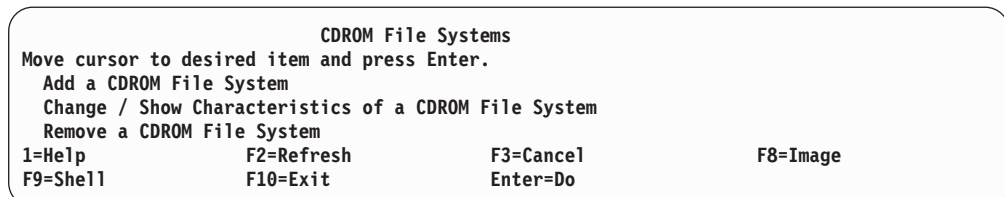


Figure 1. SMITTY CD-ROM File Systems panel

- b. Select Add a CDROM File System.

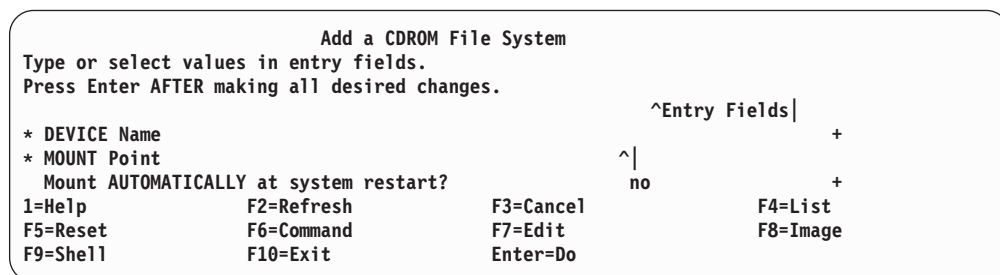


Figure 2. SMITTY Add a CD-ROM File System panel

- c. In the DEVICE name field, enter the identifier of your CD-ROM drive.
 - d. In the MOUNT POINT field, enter /cdrom.
 - e. Click OK (AIXwindows version) or press Enter (ASCII version).
 - f. Click Cancel (AIXwindows version) or press F10 (ASCII version) to exit from SMIT.
- To mount the CD-ROM, enter: **mount /cdrom**
 - Enter this command to install the notification client: **/cdrom/setup -y -n ServerName -l locale**

where:

ServerName

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

locale

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

Starting and using InfoPrint Manager Notifications on an InfoPrint AIX system

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

Important

Your site network administrator should add the name **notification** as an alias for the InfoPrint Manager Notifications server to the site's Domain Name Service (DNS) server. Once this is done, the default settings in all of the Notification clients should work. If you ever move the Notification server to another host, you only need to update the notification alias on the DNS server for the default settings in all the Notification clients to work.

Starting and using InfoPrint Manager Notifications on a Windows client

To launch InfoPrint Manager Notifications, click **Start → Programs → InfoPrint Manager Notifications** to run the software.

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

Important

Your site network administrator should add the name **notification** as an alias for the InfoPrint Manager Notifications server to the site's Domain Name Service (DNS) server. Once this is done, the default settings in all of the Notification clients should work. If you ever move the Notification server to another host, you only need to update the notification alias on the DNS server for the default settings in all the Notification clients to work.

Receiving messages

To receive messages, you must have InfoPrint Manager Notifications installed and running on your workstation. The Notification window can be minimized on both Windows and AIX systems if you do not want it open on your desktop. You have to restore it when you want to check the messages that have arrived.

The Installer places a shortcut in the user's **Startup** directory so that Notifications starts automatically on Windows systems.

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

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

Multi-server environments

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

Uninstalling InfoPrint Manager Notifications on Windows

To uninstall InfoPrint Manager Notifications, follow these steps:

1. From the **Start** menu, select **Settings** → **Control Panel**.
2. Double-click **Add/Remove Programs**.
3. Select **InfoPrint Manager Notifications**.
4. Click **Change/Remove**.

Note: Click only once, then wait for at least 30 seconds before performing any other action. If you do not wait for the first screen of the uninstaller to appear, it might get lost behind other windows. If you do not see the first screen of the uninstaller after 30 seconds, press and hold the **Alt** key, then press the **Tab** key to bring the window to the front.

5. Follow the instructions on the screen.

Uninstalling InfoPrint Manager Notifications on AIX

To uninstall InfoPrint Manager Notifications, do this:

From the AIX command line, specify this:

```
/cdrom/setup -Y
```

InfoPrint Manager removes the Notification client from the AIX server.

Chapter 6. InfoPrint interfaces tasks

This section lists the tasks you can complete with the InfoPrint Manager Administration and Operations GUIs. 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 SMIT Administrator's interface for tasks that must be performed on the InfoPrint Manager server system.

For more information about the tasks listed here, see the online help systems in the InfoPrint Manager Administration and Operations GUIs. 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 might need to perform. To access the tutorials, launch one of the InfoPrint Manager GUIs and select **Help → Tutorials**.

For information about installing and starting the InfoPrint Manager Administration and Operations GUIs, see Chapter 10, "InfoPrint Manager GUI software," on page 79.

Tasks you perform using the InfoPrint Manager Administration interface

Printer tasks:

- Create or copy a printer
- 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, or InfoPrint Color printer
- Change the AFP™ resource information
- Change AFP color options
- Change job batch
- Change job routing
- Change tuning
- View or change printer properties
- Determine the media supported in the server
- Associate a medium with a physical printer
- Set or modify notification for an actual destination
- Set or modify notification for default jobs
- Specify the default form definition for a PSF printer

- Specify the default input tray and output bin for a PSF printer
- Map output-bin names to output-bin numbers
- Force messages from a printer
- Configure BSD printers that do not support the -Z flag
- Filter on actual destinations
- Display actual destinations
- Monitor printers
- Specify job batches ready for a printer
- Associate resource-context objects with an actual destination
- Associate auxiliary sheets with a PSF printer
- Activate auxiliary sheets for accounting or auditing information
- Associate input and output data user-exit programs with an actual destination
- Change the job classes that the printer can accept
- Change the job forms that the printer can use²

Other Destination tasks:

- Create an actual destination (e-mail or generalized fax)
- Create or copy an actual destination (SAPconnect)
- Move a destination
- Delete a destination
- Create, copy, and modify job and document defaults
- Change logical destinations
- Check the status of a destination
- Enable a destination
- Disable a destination
- Resume a destination
- Stop or pause a destination
- Change the AFP resource information
- Change job batch
- Change job routing
- View or change destination properties
- Set or modify notification for a destination
- Set or modify notification for default jobs
- Force messages from a destination
- Filter on actual destinations
- Display actual destinations
- Monitor actual destinations
- Specify job batches ready for a destination
- Associate resource-context objects with an actual destination
- Activate auxiliary sheets for accounting or auditing information
- Associate input and output data user-exit programs with an actual destination
- Change the job classes that the destination can accept
- Change the job forms that the destination can use²

Job tasks:

- Check the status of a queued or retained job

- Hold a job
- Release a job¹
- Pause a job
- Resume a job
- Interrupt a printing job
- Change the media for a job
- Change the number of copies to print
- Change the priority of a job
- Change the retain time for a job
- Make a job first (promote a job)
- Move a job to a destination (reorder a job)
- Move a job to an actual destination
- Delete (cancel) a job
- Delete and retain a job
- View a job log
- View a job ticket
- Search for a job
- View or change job properties
- Display queued or retained jobs in the server
- Request a specific actual destination for a job
- Set or modify notification for a job
- Monitor jobs
- List all jobs for an actual destination or a queue
- Adjust the print quality of a job
- Set a job-batch value for a job
- Resubmit a retained job
- Select the pages of a job that you want to print
- Change the AFP resource information
- Change the AFP color options
- Change the job class
- Change the forms used for the job²

Queue tasks:

- Create a queue
- Delete a queue
- Check status of a queue
- Filter on queues
- Monitor queues
- Pause and resume a queue
- Keep failed jobs
- View or change queue properties

Logical destination tasks:

- Create or copy a logical destination
- Move a logical destination
- Delete a logical destination

- Copy and modify job and document defaults
- Change the actual destinations fed by a logical destination
- Enable a logical destination
- Disable a logical destination
- View or change logical destination properties
- Filter on logical destinations
- Display logical destinations
- Associate a default job or default document
- Monitor logical destinations
- Specify the location of resources
- Specify printer driver names
- Adjust print quality in a default document
- Set or modify notification for default jobs

Server tasks:

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

Transform tasks:

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

Miscellaneous tasks:

- Open windows (Main Window, Printers Window, Other Destinations Window, Logical Destinations Window, Jobs Window, Retained Jobs Window, Queues Window)
- Check error messages
- Update interface windows
- Customize the appearance of the interface
- Add and remove menu items and toolbar buttons
- Sort details views and tree views
- Change primary InfoPrint server connection
- Filter your view (destinations, queues, or servers)
- Access Help topics and tutorials

Notes:

1. Selected jobs are released in the same order that they are listed in the interface.
2. When you add a *form* in the interface, it only shows up in the list of available forms after a job has been run with that specific form.

For example, if you associate the form Letter with Job 1, Letter will not display in the **Printer** → **Change Forms** or **Job** → **Change Forms** drop-down lists until after Job 1 has completed.

Tasks you perform using the InfoPrint Manager Operations interface

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, or InfoPrint Color printer
- Change job routing
- Display actual destinations
- Monitor printers
- Change the job classes that the printer can accept
- Change the job forms that the printer can use²

Other Destination tasks:

- Check the status of a destination
- Enable a destination
- Disable a destination
- Resume a destination
- Stop or pause a destination
- Change job routing
- Display actual destinations
- Monitor destinations
- Change the job classes that the destination can accept
- Change the job forms that the destination can use²

Job tasks:

- Check the status of a queued or retained job
- Hold a job
- Release a job¹
- Pause a job
- Resume a job
- Interrupt a printing job
- Change the media for a job
- Change the number of copies to print
- Change the priority of a job
- Change the retain time for a job
- Make a job first (promote a job)
- Move a job to a destination (reorder a job)
- Move a job to an actual destination
- Delete (cancel) a job
- Delete and retain a job
- View a job log
- View a job ticket

- Search for a job
- View or change job properties
- Display queued or retained jobs in the server
- Display retained jobs in the server
- Request a specific actual destination for a job
- Set or modify notification for a job
- Monitor jobs
- List all jobs for an actual destination or a queue
- Adjust the print quality of a job
- Set a job-batch value for a job
- Resubmit a retained job
- Select the pages of a job that you want to print
- Change the AFP resource information
- Change the AFP color options
- Change the job class
- Change the forms used for the job²

Queue tasks:

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

Server tasks:

- Show all servers currently running in the namespace

Miscellaneous tasks:

- Open windows (Main Window, Printers Window, Other Destinations Window, Jobs Window, Retained Jobs Window, Queues Window)
- Check error messages
- Update interface windows
- Customize the appearance of the interface
- Add and remove menu items and toolbar buttons
- Sort details views and tree views
- Change primary InfoPrint server connection
- Filter your view (destinations, queues, or servers)
- Access Help topics and tutorials

Notes:

1. Selected jobs are released in the same order that they are listed in the interface.
2. When you add a *form* in the interface, it only shows up in the list of available forms after a job has been run with that specific form.

For example, if you associate the form Letter with Job 1, Letter will not display in the **Printer** → **Change Forms** or **Job** → **Change Forms** drop-down lists until after Job 1 has completed.

Using the InfoPrint SMIT administrator's interface

You use the InfoPrint SMIT administrator's interface to perform both configuration and system management tasks, including those cited in the following list.

Note: This list is not all inclusive; the miscellaneous configuration tasks and InfoPrint Utilities each contain additional tasks.

- Start and stop InfoPrint servers
- Access migration tools
- Perform troubleshooting procedures
- Access the InfoPrint SMIT operator's interface (see Appendix A, "Using the InfoPrint SMIT production print interface," on page 153)
- Perform miscellaneous configuration tasks
- Manage network interfaces
- Manage InfoPrint security
- Use the InfoPrint utilities

Use the information in this section as a reference for accessing specific panels in the interface. Use the online help provided with the interface for instructions and information about performing specific tasks.

Starting the InfoPrint SMIT administrator's interface

You have two basic methods of accessing the InfoPrint SMIT administrator's interface:

- You can access the main menu of the InfoPrint SMIT administrator's interface from the main AIX SMIT menu:
 1. Enter one of these commands at the AIX command prompt. The first command starts SMIT in the AIXwindows mode. The second command starts SMIT in the ASCII mode:

```
smit
smitty
```
 2. Select **InfoPrint Printing System**.
- Enter one of these fastpath commands at the AIX command prompt to bypass the main AIX SMIT panel and go directly to the main panel for a group of InfoPrint tasks.

Note: Most InfoPrint SMIT panels contain fastpath commands that you can access by selecting the **F8 Image** key.

Table 1. SMIT fastpath commands

Command	Invokes
smit ipr smitty ipr	Main menu for the InfoPrint SMIT administrator's interface
smit iprstrstp smitty iprstrstp	Menu for starting and stopping servers
smit iprmig smitty iprmig	Menu for InfoPrint migration tools
smit iprtroub smitty iprtroub	Menu for InfoPrint troubleshooting tasks

Table 1. SMIT fastpath commands (continued)

Command	Invokes
smit ppo_tasks smitty ppo_tasks	Menu for the InfoPrint Production Print Operation's GUI
smit pd_psf_main smitty pd_psf_main	Menu for miscellaneous InfoPrint configuration tasks
smit ipru_main smitty ipru_main	Menu for InfoPrint utilities

Accessing the online help for the InfoPrint SMIT administrator's interface

The online help for the InfoPrint SMIT administrator's interface provides descriptions of panel controls, such as buttons, entry fields, and lists. You can access the help information using standard AIX SMIT help actions. If you are not familiar with using SMIT help, you can use the **Help** pull-down menu at the upper right corner of any AIX windows SMIT panel. If you are using SMIT in the ASCII mode, access the main AIX System Management panel. Highlight the panel title and press **F1** to access help on using SMIT.

Tasks you can perform using the InfoPrint SMIT administrator's interface

The following section is a brief description of the tasks you can perform using the InfoPrint SMIT administrator's interface. Use the online help for more detailed information.

Server tasks

The InfoPrint SMIT administrator's interface menu selections for servers allow you to start a new InfoPrint server, start an existing InfoPrint server, or stop a server. When stopping a server, you can specify how InfoPrint shuts down the server with regard to the jobs contained in the queues or being processed by the actual destinations in the server.

Migration tools and tasks

The InfoPrint SMIT administrator's interface menu selections for migration tools allow you to:

- Create a minimum InfoPrint configuration.
This task creates a logical destination (logical printer), queue, and actual destination (physical printer) in either an existing InfoPrint server or a new InfoPrint server.
- Migrate an existing AIX virtual printer.
This task converts an existing AIX virtual printer into an InfoPrint actual destination with the same characteristics as the virtual printer. Both the virtual printer you are converting and the actual destination you are creating must reside on the same AIX system.

Troubleshooting tasks

The InfoPrint SMIT administrator's interface menu selections for troubleshooting allow you to:

- View a server error log

This task opens a vi editor session containing the error log for the server that you specify. Server error logs contain messages about both successful and unsuccessful operations performed by the server and the objects the server contains. When you receive a notification message that instructs you to do so, you can open an error log to learn more information about a particular problem

- Enable/disable server tracing

This task should only be performed at the direction of an InfoPrint Solutions Company service representative.

- Capture service/debug information

This task should only be performed at the direction of an InfoPrint Solutions Company service representative.

Configuring the Production Print Operations GUI

For more information about using this support, see Appendix A, "Using the InfoPrint SMIT production print interface," on page 153.

Security tasks

You can use the InfoPrint SMIT administrator's interface menu selections for security to control the groups that can access InfoPrint servers, queues, and destinations and the level of access that they have.

For more information, see *InfoPrint Manager for AIX: Procedures*.

Creating default users

If you are using InfoPrint Manager and are running a Print-on-Demand server configuration, you should control access to InfoPrint administrator and operator functions by creating the default users **admin** and **oper** (security groups).

To control access to InfoPrint, see the "Managing Security for InfoPrint Manager for AIX" procedure that is available from the *InfoPrint Manager for AIX: Procedures* manual.

Running InfoPrint as the **root** user is not recommended under any circumstances. The **admin** user can perform both administrator and operator tasks on InfoPrint systems. The **oper** user can perform operator tasks, but is prohibited from performing administrative tasks. To set up these users, do this:

1. Access the **InfoPrint Utilities** main menu by:
 - If you do not have an **InfoPrint Manager** icon on your front panel, open the **InfoPrint** folder in the Application Manager and double click **InfoPrint SMIT**. Then click **InfoPrint Utilities**.
 - If you do have an **InfoPrint Manager** icon on your front panel, open InfoPrint Manager's popup menu and click **InfoPrint SMIT**. Then click **InfoPrint Utilities**.
2. Click **Create Default Users**.
3. Click **OK** when asked, "Are you sure?"
4. Log the passwords that you set for the **admin** and **oper** users because they will be needed in the future.

Other miscellaneous InfoPrint tasks

The InfoPrint SMIT administrator's interface menu selections for miscellaneous InfoPrint configuration allow you to perform these tasks:

- Customize the Input Manager
- Interrupt the current job on an input device
- Clean up canceled jobs and leftover files
- Error log and trace options

Other tasks using InfoPrint utilities

The InfoPrint SMIT administrator's interface menu selections for InfoPrint utilities allow you to perform these tasks.

- Add or remove languages
- Claim a new disk for use with InfoPrint
- Configure AIX Fast Connect (See the *InfoPrint Manager Print-on-Demand Feature: Submit Express User's Guide*, which is available from both the *InfoPrint Manager: Publications CD-ROM*, SK4T-4017 and the InfoPrint Solutions Company web site. For more information about obtaining information from the Web, see "Most recent information" on page 3.)
- Configure Secondary servers
- Create Default users
- Enable or disable autostart
- Start or stop the notification daemon
- Start or stop the SAP callback and SAP connect daemons. (See *InfoPrint Manager: SAP R/3 Planning and Configuration Guide*.)
- Print a test job

Chapter 7. Understanding Destination Support Systems (DSS)

The software that the actual destination uses to send jobs to the output device is called the destination support system (DSS). When you select a DSS for an actual destination, you must consider a variety of different criteria. These criteria include the type of destination (for example, fax machine, email server or printer), the document formats your destination accepts (for example **ipds**, **pcl** or **ps**), and the document formats you plan to send to InfoPrint Manager to deliver to your printer, and in some cases the printer model that an actual destination represents (for example, only the IP2000 DSS supports the non-ipds 2000 printer). For the attributes supported by each DSS, see *InfoPrint Manager: Reference*.

This chapter consists of these topics:

- “InfoPrint Manager for AIX Supported DSSs”
- “Selecting a DSS” on page 38
- “Selecting from among a PSF, AIX, and BSD DSS” on page 39

InfoPrint Manager for AIX Supported DSSs

InfoPrint Manager for AIX supports these DSSs:

PSF DSS

The PSF DSS can send jobs to Intelligent Printer Data Stream™ (IPDS™), PCL, or PPDS printers or to upload jobs to the z/OS® system. The PSF DSS transforms jobs to IPDS, PCL, PPDS, or AFP before sending them to the output device or destination. The PSF DSS can transform input data and drive printers concurrently, as well as support multiple document formats in the same job. The way a PSF DSS actual destination communicates with the output device or destination and the format of the data it sends to the device or destination depend on the attachment type. As a result, the PSF DSS is the most flexible DSS. For more information, see “Understanding attachment types for PSF actual destinations” on page 39.

AIX DSS

The AIX DSS drives printers like the AIX print-spooling subsystem. In standard AIX printing, users submit jobs to an AIX print queue. The AIX print-spooling subsystem schedules the jobs and passes them to a printer device by means of a backend program that is integrated into the AIX print-spooling subsystem, usually **pio***be*, **pio***jetd*, **lex***be*, or **pio***ibmnp***m**, and if the queue is a remote queue, **rem***bak*.

With the AIX DSS, users submit jobs to an InfoPrint Manager logical destination or queue and InfoPrint Manager schedules the jobs to an AIX DSS actual destination. The AIX DSS actual destination submits the job to a printer device using one of the AIX backend programs.

For InfoPrint Manager to drive your printer with an AIX DSS, you need to install all the necessary software (driver files) that the AIX print spooling subsystem would need to drive your printer. You do not need to create AIX queues for InfoPrint Manager to drive your printer with an AIX DSS. Unlike most AIX queues, the AIX DSS supports both multiple input data formats and multiple document formats in the same job.

BSD DSS

The BSD DSS can be used to invoke any command you wish, as long as your command accepts a file as its last argument and lets you map InfoPrint Manager attributes to command options for your command.

Typically, the BSD DSS uses the **rembak** program to send jobs to a printer device connected to another processor. This processor can run AIX or any other operating system that supports the **lpd** protocol and connects to the network using TCP/IP. For remote printer devices, you must set up a remote queue and configure the remote system. See the printer configuration documentation of the remote system.

InfoPrint 2000 DSS

InfoPrint Manager for AIX uses the IP2000 DSS to send jobs and communicate with model InfoPrint 2000 printers that do not use IPDS.

Email DSS

InfoPrint Manager for AIX uses the email DSS to send jobs as emails to electronic mailing systems.

Generalized Fax DSS

InfoPrint Manager for AIX uses the Generalized FAX DSS to send jobs as faxes to fax devices.

sapconnect DSS

InfoPrint Manager for AIX uses the sapconnect DSS to deliver incoming faxes to users on a SAP system. For more information, see the *InfoPrint Manager: SAP R/3 Planning and Configuration Guide* manual which is available from the InfoPrint Manager for AIX 4.3 Product Library page (<http://www.printers.ibm.com/R5PSC.NSF/Web/ipmrefinfo41>).

Selecting a DSS

Selecting the right DSS in some cases is obvious. For example, it should be clear when you create a generalized fax, email, sapconnect, or IP2000 DSS. Selecting a DSS to drive other printers is more complicated and requires more understanding of the PSF, AIX and BSD DSSs.

One important factor is the document formats your printer accepts and the document formats of the jobs you plan to submit. The AIX and BSD DSSs pass through any data streams including PS, PCL5E, PCL6 and PCLXL. The PSF DSS has a variety of attachment types that need to be understood and is capable of converting the following input data streams to IPDS, PCL4, PCL5, PCL5C, or PPDS:

- AFPDS
- ASCII
- DBCS ASCII
- GIF
- EBCDIC
- JPEG
- PCL (PCL 6 and earlier)
- PDF (1.7 and earlier)
- PS (level 3 and earlier)
- PPDS
- SAP (ABAP and OTF)

- TIFF
- PPML

Understanding attachment types for PSF actual destinations

The attachment type for a PSF DSS actual destination determines what data format is sent and how PSF sends the data to the device or destination. The following attachment types are available:

TCP/IP

A PSF TCP/IP attachment type actual destination drives an IPDS printer that is connected to the network. When sending IPDS to a printer, the PSF DSS uses the PSF printing subsystem to communicate with the output devices. This subsystem provides excellent two way communication with the printer so InfoPrint Manager has the best control and information regarding the job. For more information, see “PSF TCP/IP printer” on page 53.

Note: The InfoPrint 1000 family of printers uses port 9100. Most other InfoPrint printers default to port 5001. The value you set here must match the value set at the printer.

Upload-TCP/IP

A PSF Upload-TCP/IP attachment type actual destination uploads jobs in AFPDS format to either z/OS or MVS™. This DSS communicates with either PSF for z/OS or PSF for MVS through the TCP/IP network. Before creating the actual destination, you must determine the Internet Protocol (IP) address of the z/OS or MVS system and the port number at which the AFP Upload Server program on the host system receives requests. The port number is an integer from 5001 to 65535. You must also determine the code pages used on both the AIX and host systems. See *InfoPrint Manager for AIX: Procedures* for more information about configuring for using the AFP Upload function. For more information about creating this DSS, see “PSF upload TCP/IP printer” on page 54.

Other-Driver

A PSF other-driver attachment type actual destination drives a PCL (or PPDS) printer in the same manner as an AIX DSS. It is possible to configure this type of DSS to transform some data formats to PCL while passing some formats (such as PostScript® and PCL) through to the device.

For more information, see “PSF Other-driver printer” on page 55.

Command

A PSF command attachment type actual destination executes a command that takes **stdin** input and usually requeues jobs to a PCL (or PPDS) printer queue.

For more information, see “PSF Command printer” on page 59.

Selecting from among a PSF, AIX, and BSD DSS

Understanding the PSF attachment types help further determine which type of DSS to use for your printer. To upload jobs to z/OS or MVS, you should create one of the PSF upload attachment type actual destinations, depending on your communication protocol with PSF running on the host (TCP/IP). To drive an IPDS printer, you should create a PSF TCP/IP actual destination.

The most complex decisions concern when to use either an AIX, PSF-other, BSD, or PSF Command DSS for printing. The following topics provide reasons for and reasons against using particular DSSs.

AIX DSS

If your input data formats (for example, PDF, PostScript and PCL) are the same as the formats accepted by your printer (you neither need nor desire that data to be transformed), then driving your printer with an AIX DSS is a good choice. An InfoPrint Manager AIX DSS can drive any printer an AIX queue can drive. By using one of the InfoPrint Manager enhanced AIX backends (**pioibmnpm** or **pioinfo**), the AIX DSS also supports accurate job completion and job accounting. Before using one of these backends, you must install the driver files for your printer.

Notes:

- The **pioibmdp** backend that comes with InfoPrint 2085 or InfoPrint 2105 also provides accurate job completion and job accounting for those printers. It should not be used with other printers, and the InfoPrint Manager enhanced backends (**pioibmnpm** and **pioinfo**) should not be used with the InfoPrint 2085 or InfoPrint 2105 printers.
- The **pioipdm** backend that comes with the InfoPrint 2190, Infoprint® 2210, or InfoPrint 2235 provides accurate job completion and job accounting for those printers. It should not be used with other printers, and the InfoPrint Manager enhanced backends (**pioibmnpm** and **pioinfo**) should not be used with the InfoPrint 2190, InfoPrint 2210, or InfoPrint 2235 printers.

The hardest part of creating an AIX DSS is figuring out what the destination-command should be. If you configure an AIX queue for one of your printers, you can find the destination command you need to enter to create the AIX DSS actual destination in the `/etc/qconfig` file after the **backend=** parameter for your AIX queue. Most of these backends work the same, except that they default to different port numbers. So if you want to use the InfoPrint Manager enhanced backends to obtain accurate job completion and job accounting information, you just need to know the port number to use for your printer.

The AIX DSS destination command for the InfoPrint Manager enhanced backends can be either of these:

```
/usr/lib/lpd/pio/etc/pioinfo ip-address [port]
/usr/lib/lpd/pio/etc/pioibmnpm ip-address [port]
```

where *ip-address* is the IP address of the printer you want to use and *port* is the TCP/IP port that printer uses for both PCL and PostScript print jobs. If the port is not specified, it defaults to 9100 for **pioinfo** and to 2501 for **pioibmnpm**. On HP printers, the port is most often 9100; on most InfoPrint printers, the port is 2501, but some newer InfoPrint printers also use port 9100.

If your actual destination supports printing PDF natively, select the PDF value in the **Formats allowed** list to print PDF documents on your InfoPrint printer.

Accurate job completion in the AIX DSS

Accurate job completion means that the job remains in the processing state in InfoPrint Manager until it has completed printing.

The **pioinfo** and **pioibmnp** backends together with the **wait-for-job-completion** attribute can be used to improve the accuracy of page counts in the accounting log and to provide accurate job completion support. If you wish to have accurate job completion, the **wait-for-job-completion** attribute must be set to **true**.

These conditions must be true before you can set **wait-for-job-completion** to **true**:

- Your printer backend program must support accurate job completion. The **pioinfo** and **pioibmnp** commands meet this requirement.
- Your printer must support the PDL language. If your printer supports SNMP, the server queries the printer to find out whether it supports PDL. Otherwise, you must have an entry for your printer model in the `/usr/lpp/pd/bin/pjldrtrs.cfg` file. If any of these conditions apply:
 - A printer supports PDL but does not support SNMP
 - A printer is not on when you start the InfoPrint AIX server
 - A printer's actual destination is not using InfoPrint Manager's SNMP supportput an entry in the **pjldrtrs.cfg** file.
- Do not put an entry in the **pjldrtrs.cfg** file for a printer that does not support PDL.

See "Using the **pjldr** command" for information on how to determine whether your printer supports PDL and "Adding the printer model to the **pjldrtrs.cfg** file" on page 42 to put the entry in the **pjldrtrs.cfg** file.

When you have **wait-for-job-completion** set to **true**, your job remains in a processing state in InfoPrint Manager until the last page has been stacked on the printer. The page count shown in the accounting log is the page count reported by the printer for that job. If you have requested a start sheet or end sheet, those pages are part of the page count.

Using the **pjldr** command

If you have a printer that does not support SNMP, the **pjldr** command can be used to find out whether it supports the PDL language. This information is useful to set **wait-for-job-completion** to **true** for a printer.

The format for the **pjldr** command follows:

```
pjldr ip-address port
```

where *ip-address* is the Internet Protocol address of the printer you want to use and *port* is the TCP/IP port which that printer uses for PCL and PostScript print jobs. On HP printers, the port is most often 9100; on most IBM printers, the port is 2501. If you try both of these ports on a printer and receive a message that indicates that a connection to the printer could not be established, please consult your configuration manuals for the printers to find the TCP/IP port.

When you run **pjldr**, the printer must be turned on and online with no error conditions that would prevent it from printing, and it must not be in use by any other program. Once **pjldr** has completed, you receive a message indicating whether your printer supports correct job completion. If you receive a message indicating that an error occurred while trying to detect job completion support, you should make sure that the printer is online and ready and not in use by another application. If you receive a message indicating that the printer does not support correct job completion, you cannot set **wait-for-job-completion** to **true** for that printer.

If you receive a message indicating that the printer does support correct job completion, you can add the printer model to the `/usr/lpp/pd/bin/pjlprtrs.cfg` file.

Note: If your printer does not support PJL, running `pjldetect` will most likely cause some data to print and a page to be ejected.

Adding the printer model to the `pjlprtrs.cfg` file

The `pjlprtrs.cfg` text file lists printer models that support setting `wait-for-job-completion` to `true`, but these printers either do not support SNMP, are not configured to use SNMP, or are not on when the InfoPrint AIX server is started. Some systems use the `pjlprtrs.cfg` file because they can create printers with the `wait-for-job-completion` attribute set to `true`, without having to verify through SNMP that the printer supports PJL. Without this capability, printers that have not been turned on would fail the SNMP/PJL test, and InfoPrint would automatically set the `wait-for-job-completion` attribute to `false`. This would force administrators to reset the attribute to `true` after they turn on the printer.

If you have determined that your printer does support correct job completion, but it does not support SNMP, you can add the printer model to the `/usr/lpp/pd/bin/pjlprtrs.cfg` file. Only printers that are known to support PJL should be added to this file. You can find the AIX colon files in the `/usr/lpd/pio/predef` directory. The model names in `pjlprtrs.cfg` file must match the model names you specify for the `destination-model` actual destination attribute for the AIX DSS.

A sample `pjlprtrs.cfg` file that lists the InfoPrint 4317 and HP Laserjet 5 Si printers looks like:

```
ibm4317  
hp1j-5si
```

Note: Because both the InfoPrint 4317 and the HP Laserjet 5 Si support SNMP, you would only place those models in the `pjlprtrs.cfg` file if you were setting `use-snmpp` to `false` on the corresponding actual destinations or the printers were turned off when your InfoPrint AIX server starts.

PSF-other DSS

To submit jobs to a PCL printer in formats other than those the printer accepts (such as PDF, GIF, or a SAP data stream), then driving your printer with a PSF-other DSS is a good choice. You can even configure it to bypass transforming some document formats while transforming all others.

Because the PSF-other DSS drives the printer just like an AIX DSS, everything about the AIX DSS applies. By default, a PSF-other DSS transforms all incoming document formats to PCL4, PCL5, PCL5C, or PPDS. For more information about limitations specific to using **PSF-Other** printer to transform input data types to forward to a PCL printer, see “Processing concerns when using the PCL Secondary” on page 47.

To configure a PSF-other Driver printer not to transform certain input data formats, you use the **InfoPrint Manager Administration GUI** to perform this configuration task. After you create the PSF Other-Driver attached printer with the **Create Printer Wizard**, you must go into the **Printer Properties** notebook for the printer and modify the **Formats to RIP at destination** field to configure your actual destination for passthru PCL and PostScript jobs. The **Formats to RIP at**

destination field can be found on the **Document** tab of the **Printer Properties** notebook when all the available properties are displayed. It might be necessary to click **Show More** to display all the printer properties.

Highlight both **PCL** and the **PostScript** (or only one of the two, depending upon what data types your actual destination supports natively) from the **Formats to RIP at destination** list of possible values, and click **Add>>**.

You can specify other values besides **PCL** and **PostScript** because you can have a destination that can accept them directly. For example, your printer might accept **ASCII**.

To print PDF documents directly, select PDF from the **Formats to RIP at destination** list and click **Add....**

Note: As the following sections indicate, you must avoid specifying particular InfoPrint Manager attributes to ensure that jobs are not transformed.

Document attributes that cause a job to be transformed

The following document attributes negate the **Document Formats Ripped at Destination** setting and force jobs to be transformed:

- **base-printer**
- **carriage-control-type**
- **chars**
- **color-mapping-table**
- **convert-to-ebcdic**
- **data-fidelity-problem-reported**
- **default-printer-resolution**
- **document-finishing**
- **explicit-page-placement**
- **font-fidelity-action**
- **font-processing-messages**
- **font-resolution**
- **form-definition**
- **halftone**
- **image-fit**
- **image-length**
- **image-out-format**
- **image-width**
- **input-exit**
- **input-tray-select**
- **job-terminate-message-count**
- **jog-between-job-copies**
- **maximum-messages-printed**
- **maximum-transform-pages-ahead**
- **mvs-segment-id**
- **new-line-option**
- **new-line-option-data-encoding**
- **number-up**
- **other-transform-options**
- **output-appearance**
- **output-bin**
- **output-format**
- **overlay**
- **overlay-back**

- **overlay-front**
- **page-definition**
- **page-media-select**
- **page-select**
- **resource-context**
- **resource-context-font**
- **resource-context-form-definition**
- **resource-context-overlay**
- **resource-context-page-definition**
- **resource-context-page-segment**
- **resource-context-user**
- **resource-exit**
- **reverse-page-order**
- **scanner-correction**
- **screen-frequency**
- **segment-file-size**
- **shared-formdef**
- **shift-out-shift-in**
- **start-on-new-sheet**
- **table-reference-characters**
- **transform-message-file-name**
- **transform-output-file-name**
- **x-image-shift**
- **x-image-shift-back**
- **y-image-shift**
- **y-image-shift-back**

For more information about these attributes, see *InfoPrint Manager: Reference*.

Job attributes that cause a job to be transformed

These attributes negate the **Document Formats Ripped at Destination** setting and force the jobs to be transformed:

- **delete-segment-list**
- **job-finishing**
- **job-rip-action**
- **optimize-for-multiple-copies**

For more information about these attributes, see *InfoPrint Manager: Reference*.

PSF header sheet attributes that cause a job to be transformed

These attributes could effect header sheet generation, so they also negate the **Document Formats Ripped at Destination** setting and force jobs to be transformed:

- **account-text**
- **address1-text**
- **address2-text**
- **address3-text**
- **address4-text**
- **building-text**
- **department-text**
- **mvs-class**

- **mvs-destination**
- **mvs-forms**
- **name-text**
- **node-id-text**
- **programmer-text**
- **room-text**
- **subject-text**
- **title-text**
- **user-id-text**

For more information about these attributes, see *InfoPrint Manager: Reference*.

BSD DSS

You should use the BSD DSS only when there is either no other way to communicate with a device (for example, it is connected to a non-AIX processor) or you require:

- A terminating actual destination for the configurable transform subsystem
- An exit for your own use

The BSD DSS is capable of mapping InfoPrint Manager job and document attributes to options for your destination command. InfoPrint Manager uses the values in the **attribute-map** attribute to map InfoPrint Manager job and document attributes to options that append the **destination-command** value. This provides a means to customize the options passed from InfoPrint Manager to your destination command. Each value of the attribute map consists of an InfoPrint Manager attribute name, a colon, and a string containing the option flag to which the attribute maps. InfoPrint Manager appends the value of the attribute after the option flag in the generated command.

For example, if you set your **attribute-map** attribute to this:

```
copy-count:-N job-name:-T job-owner:-D
```

and your destination command is `qprt -c -P mpc1`, the BSD actual destination would generate this command:

```
qprt -c -P mpc1 -N copy_count_value -T job_name_value -D job_owner_value filename
```

The **attribute-map** attribute defaults to **destination-pass-through:-o**, which is appropriate if your destination command is **rembak**. Set your **attribute-map** attribute appropriately for your destination command.

If you are using the **rembak** destination command, these **attribute-map** values are recommended:

attribute-map values to set	
<ul style="list-style-type: none"> • job-name:o-Z • dest-pass-through:o 	<pre>-x"attribute-map='job-name:-o Z printer-pass-through:-o'"</pre>

If you are using the **qprt** destination command, these **attribute-map** values are recommended:

attribute-map values to set	Example -x specification
<ul style="list-style-type: none"> • copy-count:-N • job-name:-T • job-owner:-D 	-x"attribute-map='copy-count:-N job-name:-T job-owner:-D'"

If you are using the **lpr** destination command, these **attribute-map** values are recommended:

attribute-map values to set	Example -x specification
<ul style="list-style-type: none"> • copy-count:# • job-name:-J 	-x"attribute-map='copy-count:-# job-name:-J'"

If the **destination-pass-through** attribute is not mapped on the attribute-map attribute, the contents of this attribute are inserted into the command that the BSD actual destination generates after the job and the document mappings, but before the filename.

For example, if **attribute-map=copy-count:-N** and the destination command is `qprt -c -P mpc1`

you can submit the command:

```
pdpr -P LogPrt1 -x "copy-count=2" -x "dest-pass-through=-p15" /etc/motd
```

and expect this result:

From dest-command attribute:	From job/document attribute:	From document's destination-pass-through attribute:	From document file names:
<code>qprt -c -P mpc1</code>	-N 2	-p15	/etc/motd

If possible, you should avoid using the BSD DSS to send jobs to printers for these reasons:

- Because InfoPrint Manager does not directly control the printer device, printer status information and error detection are limited. For example, if the remote queue is up, but the printer device cannot print because of a hardware problem, the BSD actual destination remains in a normal state.
- For the same reason, job status information is limited. For example, InfoPrint reports jobs as complete when they have been sent to the remote queue even though the printer device might be down. This means that you should not include BSD actual destinations in a pool. Jobs can be requeued on the remote queue and never actually printed, although other printers in the pool might be capable of printing them.
- Because most AIX print queues support only one data stream, BSD actual destinations usually accept only a single document format.
- BSD physical printers do not generate auxiliary sheets. The system where the printer device is attached might create auxiliary sheets, but you cannot control them using InfoPrint Manager attributes.

- If a job sent to a BSD actual destination includes multiple data sets, the output might be interleaved with the output from other jobs. For example, if you request two copies of a job, the printer device might print one copy, then another job, then the second copy.

PSF Command-attached DSS

You should use the PSF command-attached DSS when you need to either transform input data types to forward to a PCL printer that you have no other way to reach or store the data for later handling. For example, if the PCL printer is physically connected to another system, this method might be the only way to print to it. Before you create the PSF command-attached actual destination, you must create the print queue to which the actual destination will submit requests.

Because PSF command-attached actual destinations requeue jobs to a local or remote queue, they share many of the limitations of BSD actual destinations listed in the BSD section. However, there are some notable differences.

Unlike BSD actual destinations, PSF command-attached actual destinations:

- Support multiple document formats because the PSF DSS automatically transforms all input data to AFP and then to some form of PCL or PPDS before sending it to the print queue.

For more information about limitations specific to using PSF command-attached printers to transform input data types to forward to a PCL printer, see “Processing concerns when using the PCL Secondary.”

- Generate auxiliary sheets

Unfortunately, a command-attached actual destination does not receive very much printer and job status information. Because the command used must be able to accept data from **STDIN**, the PSF command-attached DSS cannot use the **rembak** backend.

Processing concerns when using the PCL Secondary

InfoPrint Manager uses the PCL Secondary when PSF receives data and converts it to PCL for printing on a PCL printer. You use the PCL Secondary whenever you submit jobs through either a PSF Other-driver printer that does not set the **document-formats-ripped-at-destination** attribute or through a PSF Command printer. This section describes concerns that are specific to jobs sent through the PCL Secondary.

There are specific limitations that must be observed when sending jobs through the PCL Secondary:

- InfoPrint Manager only supports printing the following data streams as output of the PCL Secondary:
 - PPDS
 - PCL4
 - PCL5
 - PCL5c
- The PCL Secondary only:
 - Produces PCL image data when there is image in the data sent to it.

- Converts on a job basis and does not save AFP resources (whether fonts, overlays, or page segments) from previous jobs on the PCL printer.
- The PCL Secondary does not support:
 - Running parallel PCL Secondaries to transform jobs into PCL format, unless you create and print to different actual destinations.
 - Using any printer-resident resources (see “How the PCL Secondary uses fonts”).
 - Reusing printer resources (including fonts) in subsequent jobs.
 - Selecting output bins.
 - Using custom media sizes.

Configuring trays for PCL Secondary printers

Mapping input bin numbers between the PCL Secondary and the printer is different than mapping input bins between IPDS printers and the printer. For an IPDS printer, InfoPrint Manager gets the available bins from the printer. For the PCL Secondary, you must configure the bins you want to use because InfoPrint Manager cannot query the printer and must mimic an IPDS printer to capture formatting information:

Table 2. Sample input bin mappings

AFPDS bin #1	tray #1
AFPDS bin #2	tray #4

The PCL Secondary has limitations that apply to input bins that might limit your ability to perform certain tasks. Because it supports an older version of the IPDS Load Copy Control (**LCC**) command, the PCL Secondary is limited in what it can do with copies. When printers support the older version of the **LCC** command, IPDS uses an Execute Order Homestate Select Input Media Source (**XOH-SIMS**) command each time a medium map changes. The PCL Secondary’s older version of the **LCC** command limits you to specifying one input bin for each **LCC** command. Because each **XOH-SIMS** command overrides the previous one, you cannot specify multiple copies of each page from different bins on the PCL printer. For a complete example of how this works, see the **psf-tray-characteristics** actual destination attribute description in the *InfoPrint Manager: Reference*.

For example, if you were to try and print a job with a form definition that specifies multiple input bins for each page, you might be able to print successfully using an IPDS printer that supports these specifications, but be unable to print that same job to a PCL or PPDS printer through the PCL Secondary. With the printer using the PCL Secondary, InfoPrint Manager uses an **XOH-SIMS** command each time the form definition changes the medium map.

How the PCL Secondary uses fonts

The PCL Secondary supports only two types of fonts:

1. 300 pel AFP fonts
2. Relative-Metric AFP fonts

You must install one of these two font types on your system so they can be used by the PCL Secondary.

Because the PCL Secondary transfers data to the PCL printer character-by-character during job processing, you cannot examine the PCL data the same way you might examine standard text or PCL data. As a result, you cannot scan the output data for certain text strings.

Also, the PCL Secondary can neither communicate with the printer to see if the job completes printing nor query fonts on the printer after the print command has been issued.

Troubleshooting printing to the PCL Secondary

This section provides potential answers to problems that can result from using the PCL Secondary through InfoPrint Manager:

How can I troubleshoot printing problems with jobs submitted through the PCL Secondary

To understand problems printing through the PCL Secondary, you must capture the PCL file that the PCL Secondary creates by converting the IPDS information it receives from the Primary Print Process. For example, if you are using **qprt** as your print command, you can capture this converted PCL file from the print queue that sends the file to the printer.

Once you have shut down this queue, you can find the PCL file in the **/var/spool/qdaemon** directory on your InfoPrint AIX server.

The graphics in my PCL file do not print, and I receive errors with the output.

You might have submitted a file with graphics as either PCL4 or PPDS output. Neither of these data streams support graphics. To make sure that the Sense Type Model (STM) IPDS command created by the PCL Secondary generates the Graphics Command-Set Vector, you should print the output as either PCL5 or PCL5c data.

Chapter 8. Creating and managing actual destinations

The InfoPrint actual destination is the software representation of an output device. An actual destination can be a physical printer (representing a printer device), a generalized fax destination (representing a fax machine), or an e-mail destination (representing an email server).

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

You create and manage InfoPrint actual destinations through the InfoPrint Manager Administration GUI, the command line, or the migration utility. These topics describe how you create new actual destinations and usage tips for displaying actual destination information:

- “Creating actual destinations with the InfoPrint Manager Administration GUI”
- “Migrating an existing actual destination” on page 69

Before creating an actual destination, we recommend that you power on the actual destination, such as a printer. This allows proper initialization of the printer bin configuration using SNMP.

Create an actual destination for each output device used with your InfoPrint Manager system. You can use the InfoPrint Manager Administration GUI or the command line to create an actual destination.

The attributes of the actual destination describe the features, functions, and capabilities of the device. InfoPrint validates that a device is available that supports the requirements of a job before accepting and processing the job.

You can create an InfoPrint actual destination in the same InfoPrint server that contains the queue it will receive jobs on or in a different server.

Creating actual destinations with the InfoPrint Manager Administration GUI

The InfoPrint Manager Administration GUI provides wizard support for creating these types of actual destinations:

- “PSF TCP/IP printer” on page 53
- “PSF upload TCP/IP printer” on page 54
- “PSF Other-driver printer” on page 55
- “PSF Command printer” on page 59
- “AIX Printer” on page 61
- “BSD printer” on page 64
- “InfoPrint 2000 Printer” on page 65
- “Generalized Fax and E-mail” on page 66
- “SAPconnect” on page 67

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

media-supported

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

Table 3. Default printer values using the wizard

Printer	Values
InfoPrint 45, InfoPrint 70	<ul style="list-style-type: none"> • 8.5 x 12.4 inch • 9 x 11 inch • 12 x 18 inch • A3 (297 x 419 mm) • A4 (210 x 297 mm) • A5 (148 x 210 mm) • executive (7.25 x 10.5 inch) • folio (8.5 x 13 inch) • jis-b4-white (257 x 364 mm) • jis-b5-white (182 x 257 mm) • ledger (11 x 17 inch) • legal (8.5 x 14 inch) • letter (8.5 x 11 inch) • statement (5.5 x 8.5 inch)
InfoPrint 2000 AFP	<ul style="list-style-type: none"> • 8 x 10 inch • 8 x 10.5 inch • 8.5 x 10 inch • 12 x 18 inch • 14 x 17 inch • 14 x 18 inch • A3 (297 x 419 mm) • A4 (210 x 297 mm) • a4-tab (8.86 x 11.69 inch) • B4 • ledger/tabloid (11 x 17 inch) • legal (8.5 x 14 inch) • legal-tab (9 x 14 inch) • letter (8.5 x 11 inch) • letter-tab (9 x 11 inch) • manual (9 x 12 inch) • RA3 • RA4
All other printer models	<ul style="list-style-type: none"> • A3 (297 x 419 mm) • A4 (8.27 x 11.69 inch) • jis-b4-white (257 x 364 mm) • jis-b5-white (182 x 257 mm) • ledger (11 x 17 inch) • legal (8.5 x 14 inch) • letter (8.5 x 11 inch) • tabloid (11 x 17 inch)

sides-supported

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

plexes-supported

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

printer-resolutions-supported
Set to 240, 300, 480, and 600.

If you are running with the **Basic InfoPrint Manager GUI**, InfoPrint Manager sets the defaults shown in Table 4 also.

Table 4. Basic InfoPrint Manager Administration GUI defaults for PSF printers

Attribute	Default values
printer-resolutions-ready	600
booklet-fold (set only for InfoPrint 4000)	down
start-sheets-supported	job-ticket
printer-start-sheet	job-ticket
form-definition	F100D
accounting-exit	accounting-log

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 this worksheet.

Table 5. PSF TCP/IP printer worksheet

Wizard prompt	Description	Value
Name	The name for the actual destination object (8-character limit).	
Server	The InfoPrint server that controls this actual destination.	
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.	

Table 5. PSF TCP/IP printer worksheet (continued)

Wizard prompt	Description	Value
TCP/IP port	The port used by the printer for communication. If no value is specified, the server selects a port number based upon the printer model. Note: The InfoPrint 1000 family of printers uses port 9100. Most other InfoPrint printers default to port 5001. The value you set here must match the value set at the printer.	
Logical destination	The logical destination that directs jobs to this actual destination. You can accept the default LD, use another existing LD, or create a new one for this printer.	<input type="checkbox"/> Default <input type="checkbox"/> Existing: _____ <input type="checkbox"/> Create: _____
Logical destination's server	The server that contains the logical destination.	
Queue	The queue that holds jobs destined for this actual destination.	If you selected a new LD, you get these three options: <input type="checkbox"/> Default <input type="checkbox"/> Existing: _____ <input type="checkbox"/> New: _____

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**.)

Table 5 on page 53 provides the information that the wizard prompts for. See the InfoPrint Manager Administration GUI online help for more assistance.

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

PSF upload TCP/IP printer

Create a PSF upload TCP/IP actual destination to represent an IPDS printer for use with the AFP Upload function

Before creating a PSF upload TCP/IP printer, complete this worksheet.

Table 6. PSF upload TCP/IP printer worksheet

Wizard prompt	Description	Value
Name	The name for the actual destination object (8-character limit).	

Table 6. PSF upload TCP/IP printer worksheet (continued)

Wizard prompt	Description	Value
Server	The InfoPrint server that controls this actual destination.	
TCP/IP address	The dotted-decimal IP address of the host system.	
TCP/IP port	The port number used by the AFP Upload server running on the host system.	
Logical destination	The logical destination that directs jobs to this actual destination. You can accept the default LD, use another existing LD, or create a new one for this printer.	<input type="checkbox"/> Default <input type="checkbox"/> Existing: _____ <input type="checkbox"/> Create: _____
Queue	The queue that holds jobs destined for this actual destination.	If you selected a new LD, you get these three options: <input type="checkbox"/> Default <input type="checkbox"/> Existing: _____ <input type="checkbox"/> New: _____

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** → **Upload TCP/IP**.)

From Table 6 on page 54, provide the information that the wizard prompts for. See the InfoPrint Manager Administration GUI online help for more assistance.

Note: If the **Create PSF Upload 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 **PSF Upload TCP/IP printer**. Click **OK** to apply your change and close the dialog. The **Create PSF Upload 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 Other-driver printer

Create a PSF Other-driver actual destination to represent a PCL printer. By default, a PSF Other-driver printer transforms all incoming data streams into either PCL4, PCL5, PCL5C, or PPDS before sending the job to your printer. The actual destination submits jobs to the printer through the AIX backend program that is defined on the printer command (just like an AIX DSS). Before creating a PSF Other-driver actual destination, you should review the special processing considerations for jobs submitted through this type of actual destination that are described in “Processing concerns when using the PCL Secondary” on page 47.

By setting the **document-formats-ripped-at-destination** actual destination attribute, you can specify particular **document-formats** (such as PostScript and PCL) that will not be transformed by InfoPrint Manager. Using this attribute, you can eliminate the performance overhead of having PCL and PostScript documents transformed into Advanced Function Presentation™ data and then into PCL image data when your printer is capable of accepting those data streams.

The use of certain job and document attributes requires the actual destination to transform a job even if the job's document format is listed on the **document-formats-ripped-at-destination** attribute. For example, if you submit a PostScript job that contains the document attributes **form-definition** and **output-format**, InfoPrint must transform this job to honor these attributes. For a complete list of the attributes that force InfoPrint to transform the job, see "Document attributes that cause a job to be transformed" on page 43, "Job attributes that cause a job to be transformed" on page 44, and "PSF header sheet attributes that cause a job to be transformed" on page 44.

If the printer you are defining is not an SNMP printer, you must configure the **psf-tray-characteristics** attribute to specify the input tray values (paper types) that the printer supports. For more information about the paper type limitations, see *InfoPrint Manager: Reference*.

Before creating a PSF Other-driver printer, complete this worksheet.

Table 7. PSF Other-driver printer worksheet

Wizard prompt	Description	Value
Name	The name for the actual destination object (8-character limit).	
Server	The InfoPrint server that controls this actual destination.	

Table 7. PSF Other-driver printer worksheet (continued)

Wizard prompt	Description	Value
Model	<p>This single-valued attribute indicates the make and model of the printer device represented by the PSF-other actual destination.</p> <p>Select the printer model from the pull-down list in the InfoPrint Manager Administration GUI or enter a value.</p> <p>The value you specify must match the file prefix of a file in the /usr/lpd/pio/predef directory. For example, one of the files for a 4029 printer is ibm4029.asc. Therefore, the value you specify is ibm4029. Note: Specifying the predef format is optional for InfoPrint printers that appear in the InfoPrint Manager Administration GUI drop-down list, but it is required for all other printers. ¹</p>	<p>Examples from the predef directory:</p> <ul style="list-style-type: none"> • hp1j-3si • lex0ptraN <p>Example from the pull-down list: IBMNetworkPrinter12</p>
SNMP TCP/IP address	<p>The dotted-decimal IP address used to access this printer. This value is used only for SNMP printers.</p>	
Device	<p>The AIX device name.</p>	<p>Leave this column blank.</p>
Printer command	<p>The printer command that submits a job to this destination. Include the full path name for the AIX print driver that came with your model printer.</p> <p>This full path name is the command that would appear in the /etc/qconfig file if you had created an AIX queue for your printer.</p> <p>As an alternative, you could use the InfoPrint-supplied pioinfo or pioibmnpm AIX printer driver and supply the correct port number to make sure you get accurate job completion and accounting information².</p>	<p>Examples³</p>

Table 7. PSF Other-driver printer worksheet (continued)

Wizard prompt	Description	Value
Data stream	The data stream for PSF transforms to create (for example, PCL4, PCL5, PCL5C, or PPDS).	
Logical destination	The logical destination that directs jobs to this actual destination. You can accept the default LD, use another existing LD, or create a new one for this printer.	<input type="checkbox"/> Default <input type="checkbox"/> Existing: _____ <input type="checkbox"/> Create: _____
Logical destination's server	The InfoPrint server that contains the logical destination.	
Queue	The queue that holds jobs destined for this actual destination.	If you selected a new LD, you get these three options: <input type="checkbox"/> Default <input type="checkbox"/> Existing: _____ <input type="checkbox"/> New: _____
<p>Notes:</p> <ol style="list-style-type: none"> Regardless of whether you enter a value or pick a model from the InfoPrint Manager Administration GUI drop-down list, the printer driver (including the predef files) must be installed on your AIX system. InfoPrint Manager provides two modified AIX printer back end programs that provide accurate job completion information and an accurate count of the pages printed: /usr/lib/lpd/pio/etc/pioibmnpm <i>ipaddress port</i> where <i>ipaddress port</i> defaults to 2501, which is the port used by most InfoPrint printers and /usr/lib/lpd/pio/etc/pioinfo <i>ipaddress port</i> where <i>ipaddress port</i> defaults to 9100, which is the port used by non-InfoPrint printers. To get this function with the InfoPrint 2105 and InfoPrint 2085 printers, you must use the /usr/lib/lpd/pio/etc/pioibmdpm <i>ipaddress port</i> printer driver that comes with the printer, where <i>ipaddress port</i> defaults to 2501 To get this function with the InfoPrint 2190, InfoPrint 2210 or InfoPrint 2235 printers, you must use the /usr/lib/lpd/pio/etc/pioipdm <i>ipaddress port</i> printer driver that comes with the printer, where <i>ipaddress port</i> defaults to 9100 The use of <i>port</i> is optional. You can specify a variety of printer commands, depending upon the type of printer: <ul style="list-style-type: none"> InfoPrint Network Printer: /usr/lib/lpd/pio/etc/pioibmnpm net12.boulder.ibm.com where net12.boulder.ibm.com is a fully qualified IP address. JetDirect-attached printer: /usr/lib/lpd/pio/etc/pioinfo myhp.boulder.ibm.com 9100 Note: You can also specify /usr/lib/lpd/pio/etc/piojetd followed by the IP address. Markvision-attached printer: /usr/markvision/bin/lexbe -h optra.boulder.ibm.com -p 0 -W 1 -T no END 		

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** → **Other**.)

Table 7 on page 56 provides the information that the wizard prompts for. See the InfoPrint Manager Administration GUI online help for more assistance.

Note: If the **Create PSF Other-driver** 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. Click the **Printer** tab and select the Menu checkbox for **PSF Other-driver printer**. Click **OK** to apply your change and close the dialog. The **Create PSF Other-driver** 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.

After you create the PSF Other-driver attached printer with the **Create Printer Wizard**, you might want to passthrough PostScript and PCL data stream jobs. To configure for this support, you must go into the **Printer Properties** notebook for the printer and modify the **Formats to RIP at destination** field. The **Formats to RIP at destination** field can be found on the **Document** tab of the **Printer Properties** notebook when all the available properties are displayed. It might be necessary to click **Show More** to display all the printer properties.

Highlight both **PCL** and the **PostScript** (or only one of the two, depending upon what data types your actual destination supports natively) from the **Formats to RIP at destination** list of possible values, and click **Add>>**.

You can specify other values besides **PCL** and **PostScript** because you might have a destination that can accept them directly. For example, your printer might accept **ASCII**.

PSF Command printer

A PSF Command actual destination transforms all incoming data streams into either PCL4, PCL5, PCL5C, or PPDS before issuing your print command. Your print command must support **STDIN** (standard input) for receiving data. Before creating a PSF Command actual destination, you should review the special processing considerations for jobs submitted through this type of actual destination that are described in “Processing concerns when using the PCL Secondary” on page 47.

Create a PSF Command printer when you need to transform incoming data streams to PCL or PPDS and the PSF Other-driver printer is not suitable. The PSF Command printer only requeues jobs, so you have no control and cannot receive accurate job status.

If the printer you are defining is not an SNMP printer, you must configure the **psf-tray-characteristics** attribute to specify the input tray values (paper types) that the printer supports. For more information about the paper type limitations, see the *InfoPrint Manager: Reference*.

Before creating a PSF Command printer, complete this worksheet.

Note: Before using this worksheet to create your InfoPrint Manager actual destination, you need to create the queue that you are forwarding the job to.

Table 8. PSF Command printer worksheet

Wizard prompt	Description	Value
Name	The name for the actual destination object (8-character limit).	
Server	The InfoPrint server that controls this actual destination.	
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 for this printer. This value is used only for SNMP printers.	InfoPrint Manager uses this value only to obtain printer SNMP information from the printer.
Printer command	The command string used to send a job to the appropriate AIX printer. Because this command must support STDIN for receiving data, the AIX backend rembak is not supported.	Example: <code>/usr/bin/qprt -P printerName -dp -Z!</code>
Data stream	The data stream created by PSF transforms and expected by the printing device (for example, PCL4, PCL5, PCL5C, or PPDS).	
Logical destination	The logical destination that directs jobs to this actual destination. You can accept the default LD, use another existing LD, or create a new one for this printer.	<input type="checkbox"/> Default <input type="checkbox"/> Existing: _____ <input type="checkbox"/> Create: _____
Logical destination's server	The InfoPrint server that contains the logical destination.	
Queue	The queue that holds jobs destined for this actual destination	If you selected a new LD, you get these three options: <input type="checkbox"/> Default <input type="checkbox"/> Existing: _____ <input type="checkbox"/> New: _____

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**.)

Table 8 on page 60 provides the information that the wizard prompts for. See the InfoPrint Manager Administration GUI online help for more assistance.

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. Click the **Printer** tab and select the Menu checkbox for **PSF Command printer**. 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.

AIX Printer

Create an InfoPrint actual destination to represent a printer that receives untransformed data streams through an AIX backend (printer driver), just as a printer being driven by an AIX queue would do. The actual destination submits jobs to the printer through the AIX backend program that is defined on the printer command.

Before creating an AIX printer, complete this worksheet.

Table 9. AIX printer worksheet

Wizard prompt	Description	Value
Name	The name for the actual destination object.	
Server	The InfoPrint server that controls this actual destination.	

Table 9. AIX printer worksheet (continued)

Wizard prompt	Description	Value
Model	<p>This single-valued attribute indicates the make and model of the printer device represented by the AIX actual destination.</p> <p>Select the printer model from the pull-down list in the InfoPrint Manager Administration GUI or enter a value.</p> <p>The value you specify must match the file prefix of a file in the /usr/lpd/pio/predef directory. For example, one of the files for a 4029 printer is ibm4029.asc. Therefore, the value you specify is ibm4029. Note: Specifying the predef format is optional for InfoPrint printers that appear in the InfoPrint Manager Administration GUI drop-down list, but it is required for all other printers. ¹</p>	<p>Examples from the predef directory:</p> <ul style="list-style-type: none"> • hp1j-3si • lex0ptraN <p>Example from the pull-down list: IBMNetworkPrinter12</p>
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.	Leave this column blank.
Printer command	<p>The printer command that submits a job to this destination. Include the full path name for the AIX print driver that came with your model printer.</p> <p>This full path name is the command that would appear in the /etc/qconfig file if you had created an AIX queue for your printer.</p> <p>As an alternative, you could use the IBM-supplied pioinfo or pioibmnpm AIX printer driver and supply the correct port number to make sure you get accurate job completion and accounting information².</p>	Examples ³

Table 9. AIX printer worksheet (continued)

Wizard prompt	Description	Value
Logical destination	The logical destination that directs jobs to this actual destination. You can accept the default LD, use another existing LD, or create a new one for this printer.	__ Default __ Existing: _____ __ Create: _____
Logical destination's server	The InfoPrint server that contains the logical destination.	
Queue	The queue that holds jobs destined for this actual destination.	If you selected a new LD, you get these three options: __ Default __ Existing: _____ __ New: _____
<p>Notes:</p> <ol style="list-style-type: none"> Regardless of whether you enter a value or pick a model from the InfoPrint Manager Administration GUI drop-down list, the printer driver (including the predef files) must be installed on your AIX system. InfoPrint Manager provides two modified AIX printer back end programs that provide accurate job completion information and an accurate count of the pages printed: /usr/lib/lpd/pio/etc/pioibmnp <i>ipaddress port</i> where <i>ipaddress port</i> defaults to 2501, which is the port used by most InfoPrint printers and /usr/lib/lpd/pio/etc/pioinfo <i>ipaddress port</i> where <i>ipaddress port</i> defaults to 9100, which is the port used by non-InfoPrint printers. To get this function with the InfoPrint 2105 and InfoPrint 2085 printers, you must use the /usr/lib/lpd/pio/etc/pioibmdpm <i>ipaddress port</i> printer driver that comes with the printer, where <i>ipaddress port</i> defaults to 2501 To get this function with the InfoPrint 2190, InfoPrint 2210 or InfoPrint 2235 printers, you must use the /usr/lib/lpd/pio/etc/pioipdm <i>ipaddress port</i> printer driver that comes with the printer, where <i>ipaddress port</i> defaults to 9100 The use of <i>port</i> is optional. You can specify a variety of printer commands, depending upon the type of printer: <ul style="list-style-type: none"> InfoPrint Network Printer: /usr/lib/lpd/pio/etc/pioibmnp net12.boulder.ibm.com where net12.boulder.ibm.com is a fully qualified IP address. JetDirect-attached printer: /usr/lib/lpd/pio/etc/pioinfo myhp.boulder.ibm.com 9100 Note: You can also specify /usr/lib/lpd/pio/etc/piojetd followed by the IP address. Markvision-attached printer: /usr/markvision/bin/lexbe -h optra.boulder.ibm.com -p 0 -W 1 -T no END 		

To create this type of printer, use the **Create Printer Wizard** in the InfoPrint Manager Administration GUI. (On the menu bar, click **Printer** → **Create** → **AIX**.)

Table 9 on page 61 provides the information that the wizard prompts for. See the InfoPrint Manager Administration GUI online help for more assistance.

Note: If the **Create AIX** printer option is not shown in the **Printer** menu, you can add it to the menu using the customize options in the InfoPrint Manager Administration GUI. Select the **Customize** option from the **Options** menu to open

the Customize dialog. Click the **Printer** tab and select the Menu checkbox for **AIX printer**. Click **OK** to apply your change and close the dialog. The **Create AIX 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.

BSD printer

Create a BSD actual destination when you need to configure a terminating transform at the actual destination, create an exit for your own use, 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 this worksheet.

Table 10. BSD printer worksheet

Wizard prompt	Description	Value
Name	The name for the actual destination object.	
Server	The InfoPrint server that controls this actual destination.	
SNMP TCP/IP address	The dotted-decimal IP address used to access this printer. This value is used only for SNMP printers. This field should be left blank if you are using rembak as the printer backend.	
Printer command	The command to issue to submit a job to this remote destination. Typically, this is a call to the rembak command. For example, <code>/usr/lpd/rembak -S serverName -P printerName -N /usr/lib/lpd/aixshort.</code>	
Logical destination	The logical destination that directs jobs to this actual destination. You can accept the default LD, use another existing LD, or create a new one for this printer.	<input type="checkbox"/> Default <input type="checkbox"/> Existing: _____ <input type="checkbox"/> Create: _____
Logical destination's server	The InfoPrint server that contains the logical destination.	

Table 10. BSD printer worksheet (continued)

Wizard prompt	Description	Value
Queue	The queue that holds jobs destined for this actual destination.	If you selected a new LD, you get these three options: ___ Default ___ Existing: _____ ___ New: _____

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**.)

Table 10 on page 64 provides the information that the wizard prompts for. See the InfoPrint Manager Administration GUI online help for more assistance.

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

The BSD DSS is capable of mapping InfoPrint Manager job and document attributes to options for your destination command. InfoPrint Manager uses the values in the **attribute-map** attribute to map InfoPrint Manager job and document attributes to options that append the **destination-command** value. This provides a way to customize the options passed from InfoPrint Manager to your destination command. Each value of the attribute map consists of an InfoPrint Manager attribute name, a colon, and a string containing the option flag to which the attribute maps. InfoPrint Manager appends the value of the attribute after the option flag in the generated command. For more information about the **attribute-map** attribute works, see “BSD DSS” on page 45.

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

InfoPrint 2000 Printer

Create an InfoPrint 2000 actual destination to use the InfoPrint 2000 printer (non-IPDS model) for either AFP printing or as a PCL or PostScript printer.

Before creating an InfoPrint 2000 actual destination, complete this worksheet.

Table 11. InfoPrint 2000 Destination worksheet

Wizard prompt	Description	Value
Name	The name for the actual destination object.	
Server	The InfoPrint server that controls this actual destination.	
Model	The type of printer.	IP2000

Table 11. InfoPrint 2000 Destination worksheet (continued)

Wizard prompt	Description	Value
TCP/IP address	The dotted-decimal IP address used to access this printer.	

To create this type of printer, use the **Create Printer Wizard** in the InfoPrint Manager Administration GUI. (On the menu bar, click **Printer** → **Create** → **InfoPrint 2000**.)

Table 11 on page 65 provides the information that the wizard prompts for. See the InfoPrint Manager Administration GUI online help for more assistance.

Note: If the **Create InfoPrint 2000** printer option is not shown in the **Printer** menu, you can add it to the menu using the customize options in the InfoPrint Manager Administration GUI. Select the **Customize** option from the **Options** menu to open the Customize dialog. Click the **Printer** tab and select the Menu checkbox for **InfoPrint 2000 printer**. Click **OK** to apply your change and close the dialog. The **Create InfoPrint 2000** 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.

Generalized Fax and E-mail

Create either a Generalized Fax or an E-mail actual destination when you want InfoPrint Manager to either fax or E-mail your jobs.

Before creating either a Generalized Fax or an E-mail actual destination, complete this worksheet.

Table 12. Generalized Fax or E-mail Destination worksheet

Wizard prompt	Description	Value
Name	The name for the actual destination object.	
Server	The InfoPrint server that controls this actual destination.	
Logical destination	The logical destination that directs jobs to this actual destination. Note: We recommend that you create a separate logical destination object so that the same logical destination does not feed jobs to both a printer and one of these non-print destinations.	<input type="checkbox"/> Default <input type="checkbox"/> Existing: _____ <input type="checkbox"/> Create: _____
Logical destination's server	The InfoPrint server that contains the logical destination.	

Table 12. Generalized Fax or E-mail Destination worksheet (continued)

Wizard prompt	Description	Value
Queue	The queue that holds jobs destined for this actual destination.	If you selected a new LD, you get these three options: ___ Default ___ Existing: _____ ___ New: _____

To create this type of printer, use the **Create Printer Wizard** in the InfoPrint Manager Administration GUI. (On the menu bar, click **Other** → **Create** → *destination_type*, where *destination_type* is either E-mail or Generalized Fax.)

Referring to the worksheet above Table 12 on page 66 provides the information that the wizard prompts for. See the InfoPrint Manager Administration GUI online help for more assistance.

Note: If either the **Create Generalized Fax** or **Create E-mail** destination option is not shown in the **Other** menu, you can add it to the menu using the customize options in the InfoPrint Manager Administration GUI. Select the **Customize** option from the **Options** menu to open the Customize dialog. Click the **Other** tab and select the Menu checkbox for either the **Generalized Fax** or **E-mail** destination. Click **OK** to apply your change and close the dialog. The **Create Generalized Fax** or **Create E-mail** destination option displays in the **Other** menu.

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

SAPconnect

Create a SAPconnect destination to provide fax-in support to an SAP R/3 client that has been configured to use InfoPrint Manager for AIX.

Before creating a SAPconnect actual destination, complete this worksheet.

Table 13. SAPconnect Destination worksheet

Wizard prompt	Description	Value
Name	The name for the actual destination object.	
Server	The InfoPrint server that controls this actual destination.	
SAP gateway service	Enter the name of the SAP gateway service with which the actual destination registers.	Specify any value, but fill in this panel.
SAP gateway host	Enter the name of the host where the SAP gateway service identified in the SAP gateway service field is running.	Specify any value, but fill in this panel.

Table 13. SAPconnect Destination worksheet (continued)

Wizard prompt	Description	Value
SAP client	Enter the name of the SAP client that the actual destination will log onto, such as 090.	090
SAP user ID	Enter the SAP logon id that the actual destination will use to log onto the SAP system to which it will be delivering jobs, such as faxes.	sapuser1
SAP password	Enter the password for the SAP-logon userid identified in the SAP user ID field. This password is not visible on list attribute queries.	
SAP program ID	Enter the program ID specified in the SAP RFC destination that was created on the SAP system for this actual destination.	Specify any value, but fill in this panel.
SAP system hostname	Enter the hostname of the SAP system to which jobs, such as faxes, will be delivered by the actual destination. The system hostname must be in a name format, such as sapa, and not an ip-address format.	sapa
SAP system name	Enter the three-character name of the SAP system, such as SJD, to which jobs, such as faxes, will be delivered by the actual destination.	SJD
SAP system number	Enter the system number of the SAP system, such as 04, to which jobs, such as faxes, will be delivered by the actual destination.	04
Logical destination	The logical destination that directs jobs to this actual destination. Note: We recommend that you create a separate logical destination object so that the same logical destination does not feed jobs to both a printer and one of these non-print destinations.	<input type="checkbox"/> Default <input type="checkbox"/> Existing: _____ <input type="checkbox"/> Create: _____
Logical destination's server	The InfoPrint server that contains the logical destination.	

Table 13. SAPconnect Destination worksheet (continued)

Wizard prompt	Description	Value
Queue	The queue that holds jobs destined for this actual destination.	If you selected a new LD, you get these three options: ___ Default ___ Existing: _____ ___ New: _____

To create this type of printer, use the **Create Printer Wizard** in the InfoPrint Manager Administration GUI. (On the menu bar, click **Other** → **Create** → **SAPconnect Destination**.)

Table 13 on page 67 provides the information that the wizard prompts for. See the InfoPrint Manager Administration GUI online help for more assistance.

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

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

Migrating an existing actual destination

You use the **pdmigpp** utility to migrate an existing AIX queue to an AIX DSS InfoPrint Manager actual destination. You specify the name of an existing AIX print queue, the name of the server in which you want to create the actual destination, the actual destination name, and the name of the InfoPrint Manager queue from which the actual destination receives jobs.

You can use the **pdmigpp** utility from a SMIT panel or from the command line. To access the SMIT panel, enter:

```
smit pd_migpp
```

The **pdmigpp** utility creates:

- A BSD printer if **rembak** is the backend program of the current AIX queue.
- A PSF printer if the current AIX queue is a PSF AIX queue.
- An AIX printer in all other cases.

To migrate an existing AIX printer from the command line, enter:

```
pdmigpp my_asc Server1 ActDest1 Queue1
```

where *my_asc* is the AIX print queue, *Server1* is the server name, *ActDest1* is the actual destination name, and *Queue1* is the InfoPrint Manager queue name.

Chapter 9. Large file support

Initial installation

You can enable large file systems during the initial installation of InfoPrint Manager. See *InfoPrint Manager for AIX: Installation Instructions* for more information. Follow the instructions in “Enabling large file support” on page 72 if you did not enable large file systems during the initial installation of InfoPrint Manager. Remember to also configure your actual destinations. See “Enabling InfoPrint Manager actual destinations” on page 75 for instructions.

If you want your InfoPrint Manager server to support files larger than 2.14 gigabytes, the InfoPrint file systems must be enabled for large files and also large enough to handle the data. The following information explains:

- What is supported
- How to determine if your server is already capable of processing large files
- How to enable your server to process large files
- How to check/change the size of your file systems to support large file processing

Job submission clients supported

Client	Windows	AIX
pdpr with AIX, HP-UX, Sun Solaris, Linux®, Macintosh and Windows	Supported	Supported
MVS Download	Supported	Supported
hot folders	Supported	Supported
InfoPrint Select	Not supported	Not supported
Submit Express	Not supported	Not supported
InfoPrint Job Ticketer	Not supported	Not supported
IPP Gateway	Not supported	Not supported
Windows Gateway	Not supported	Not supported

Output methods supported

The PSF DSS is the only DSS that supports large files. PSF DSS attachments that support large files include:

Client	Windows	AIX
TCP/IP	Supported	Supported
Command	Supported	Not supported
Other	Supported	Not supported

Notes:

1. The **reverse-page-order** actual destination and document or default document attributes are not supported for large files.
2. Jobs that are processed by the Transform subsystem support files greater than 2 gigabytes in size if the command that is being called has support for files greater than 2 gigabytes in size.

InfoPrint Manager document formats support for greater than 2 gigabyte files

Document format	Windows	AIX
MOD:CA	Supported	Supported
PostScript (see Notes 1 and 2)	Supported	Supported
PCL (see Note 1)	Supported	Supported
PDF	Not supported	Not supported
Line data	Supported	Supported
XML	Not supported	Not supported
Xerox	Not supported	Not supported
SAP	Not supported	Not Supported
PPML	Not supported	Not supported
TIFF, JPEG, GIF	Not supported	Not supported
ASCII	Not supported	Not supported
Notes:		
1. Embedded PostScript and PCL objects in AFPDS are not supported if the ps2afp or pcl2afp transform produces AFP output that is greater than 2 gigabytes.		
2. If you use the ps2afp transform stand-alone (command line with the -o option), it does not support files that are greater than 2 gigabytes in size.		

InfoPrint Manager output format support for greater than 2 gigabyte files

Output format	Windows	AIX
Booklet print	Not supported	Not supported
Booklet print with integrated cover	Not supported	Not supported
Side-by-side copies	Not supported	Not supported
Slit-and-merge	Supported	Supported
Simple-n-up	Supported	Supported

Enabling large file support

Important information

Enabling large file support on an existing file system is more involved than just enabling large file support. To enable large file support on an existing file system, complete these steps:

1. Backup the existing file system.
2. Delete the existing file system.
3. Create a new file system that is large file enabled.
4. Mount the new file system.
5. Verify that the new file system is large file enabled.
6. Restore the existing file system from the backup copy into the new file system that is large file enabled.

Follow the directions in these two sections to enable support for large files on a system.

Enabling large file systems

Follow these instructions if you did not enable large file support during the initial installation of InfoPrint Manager and you want to use this function. These instructions apply to both the `/var/pd` and `/var/psf` file systems. You should have at least 7 gigabytes of available hard drive space to properly configure your system for large file support.

1. Log into the InfoPrint server as **root**.
2. Open a terminal window.
3. Stop all InfoPrint related processes by using this command:
`/usr/lpp/InfoPrint/install/bin/killprocs.ksh`

Note: InfoPrint is capitalized.

4. Use this command to unmount the `/var/psf/segments`, `/var/pd`, and `/var/psf` file systems:

```
umount <file system name>
```

Where **<file system name>** is `/var/psf/segments`, `/var/psf`, or `/var/pd`.

Note: You need to unmount `/var/psf/segments` to unmount `/var/psf`. However, you do not need to large file enable `/var/psf/segments` because the segment files are limited to a approximately to 5 megabytes in size by default.

5. Gather three pieces of information:
 - File system size
 - Volume group name
 - Does the file system currently support large files?

- a. Issue this command:

```
lsfs -q <file system name>
```

Where **<file system name>** is `/var/pd` or `/var/psf`. Check both of these file systems. If you see **bf: false** in the response text, the file system is not large file enabled. If you see **bf: true** in the response text, the file system is already large file enabled. However, continue with these steps to make sure that your file system is also large enough to support large file processing.

- b. Find the volume group name:

- 1) Look in the **Name** column on the far left of the window for the *logical volume name* for the file system.

- 2) Issue this command:

```
lslv <logical volume name>
```

Where **<logical volume name>** is the name that appears in the **Name** column in the previous step. For example: **lslv lvpsfs**. The volume group name is listed in the first row. For example: **VOLUME GROUP: rootvg**.

- 3) Make a note of the volume group name.
- c. Find the size of the file system. The size of the file system will be displayed like: **fs size: 1.445678**. This is the number of blocks that the file system occupies. You will need to determine the number of megabytes in the file system. To find this number, divide the number of blocks by **2,048**. For example:

```
fs size: 2097152
2,097,152/2,048 = 1,024
```

There are 1,024 megabytes in the file system or 1 gigabyte.

- d. Make a note of the number of megabytes in the file system.

It is necessary for the **/var/psf** and **/var/pd** file systems to be larger than 2.14 gigabytes in size to support files that are larger than 2.14 gigabytes in size. In our example, the file system is only 1 gigabyte and needs to be increased in size. Even if the file system is already large file enabled (**bf: true**), the size of the file system must also be greater than 2.14 gigabytes to be truly capable of supporting large files.

6. Use these steps to enable large file support on the file system:
 - a. Create a temporary directory:

```
mkdir /tmp/psf
mkdir /tmp/pd
```

Note: make sure that the temporary directory that you create has enough space for the file systems you are copying. Sometimes the **/tmp** file system is not large enough for this process. Choose a location with enough space to store the contents of **/var/psf** and **/var/pd**. You could also enable large file support for **/var/psf** and **/var/pd** one at a time.

- b. Copy the file system contents to another location temporarily:

```
cp -hfr <fsname> <temporary location>
```

For example: **cp -hfr /var/psf /tmp/psf**.

- c. Issue this command to remove the file system:

```
rmfs <fsname>
```

For example: **rmfs /var/psf**.

- d. Recreate the file system as a large file enabled file system of the appropriate size:

```
/usr/lpp/InfoPrint/install/bin/allocfs.ksh -n <fsname> -g <vgname> -s <mb> -1
```

Where **<fsname>** is the file system name, **<vgname>** is the volume group name, and **<mb>** is the size in megabytes of the new file system.

For example:

```
/usr/lpp/InfoPrint/install/bin/allocfs.ksh -n /var/psf -g rootvg -s
3072 -1. Ignore any messages like A file or directory in the path name
does not exist. These are normal messages and do not indicate a relevant
failure.
```

Important:

- The file system size must be larger than 2,140 megabytes. A minimum size of 3,072 megabytes in both the `/var/psf` and `/var/pd` file systems is required.
 - If your file system is already large file enabled, the `-1` flag can be omitted.
- e. Copy the file system contents back from the temporary directory:
- ```
mv <temporary location>/* <fsname>
```
- For example: `mv /tmp/* /var/psf`.
- f. Verify that the new file system is in fact large file enabled with these two commands:
- ```
1mktemp 1GB 1073741824
cat 1GB 1GB 1GB > /var/psf/3GB
```
- g. Edit the `limits` file in the `/etc/security` directory with `vi` so that the operating system will support large files:
- 1) Enter `vi /etc/security/limits` from the command line. For more information about using `vi`, enter `man vi` from the command line.
 - 2) Change the file size limit or `fsize` to a size that supports your needs. Setting the file size limit to `-1` sets the file size to unlimited. For example: `fsize = -1`.
 - 3) Save your changes.
- h. Restart the server:
- ```
startsrv <servername>
```

where `<servername>` is the name of your InfoPrint Manager server process (`pdserver`).

## Enabling InfoPrint Manager actual destinations

Once your file system is large file enabled, you also need to configure your actual destinations to support large files. To do this, change the `large-file-enabled` attribute to `True` on all of the PSF actual destinations that you want to process large files on. See the *InfoPrint Manager: Reference* for more information.





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## **Part 3. Getting started with client systems**



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## Chapter 10. InfoPrint Manager GUI software

When you install the InfoPrint Manager server, you automatically install the standard InfoPrint Manager GUIs: the InfoPrint Manager Administration GUI and the InfoPrint Manager Operations GUI. You can also install two additional GUIs: the Basic InfoPrint Manager Administration GUI and the Basic InfoPrint Manager Operations GUI. The Operations GUIs provide a subset of the functions available in the Administration GUIs. (The Basic GUIs are installed with the Print-on-Demand feature, or you can install them from the *InfoPrint Manager: Common Clients* CD-ROM, LCD4-5642.)

You can also install the interfaces on a suitable Windows system. The system does not need to have the InfoPrint Manager server software installed.

Follow the procedures in this section to use InfoPrint Manager GUI software to administer or control your InfoPrint Manager server from a remote system.

---

### Using the basic view of the GUI

The basic view of the InfoPrint Manager GUI is a simplified version of the GUI that shows jobs assigned to printers without displaying queues. The basic printing environment is generally appropriate for commercial print shops printing large runs of image data (usually in PostScript or TIFF format).

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

If you have not installed the Print-on-Demand feature and want to use the basic view of the InfoPrint Manager GUI, complete these steps in the standard view of the GUI:

- Create a queue named **<servername>-default-queue**, where *<servername>* refers to the name of the server you are using, and attach up to ten printers.
  1. Select **Queue → Create**.
  2. Enter **<servername>-default-queue** in the **Name** field.
  3. Click **OK** to create the queue.
- Specify early binding as the default.
  1. Select the **<servername>-default-queue**.
  2. Select **Queue → Properties** to open the Queue Properties notebook.
  3. In the General tab, click **Yes** in the **Preassign jobs to actual destination** field.
  4. Click **OK** or **Apply** to make the change.

**Note:** By default, the basic server saves the output files from jobs converted to raster image patterns. If you want this behavior, use the GUI to set the value of the

attribute to **true** by selecting **Server** → **Properties**. In the General tab of the Server Properties notebook, make sure that the **Save ripped files** field is set to **Yes**.

---

## Installing the Operations GUI on Windows

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

Make sure that the InfoPrint Manager server is at the same level or at a higher level of service than the InfoPrint Manager Operations GUI. Otherwise, you might receive error messages like: 5010-625 Cannot recognize attribute ....

To install the **InfoPrint Manager Operations GUI** software, do this procedure:

1. Insert the *InfoPrint Manager: Common Clients* CD-ROM, LCD4-5642, into the drive. The install program starts automatically.

**Note:** If your install program does not start automatically or if your browser stops responding:

- a. Select **Start** → **Run**.
  - b. Enter *D:\setup.html*, where *D* is your CD-ROM drive.
  - c. Click **OK**.
2. Select **Install InfoPrint Manager Clients** → **InfoPrint Manager GUIs**, and then click **Operations GUI**.
  3. Follow the instructions on the installation screens, paying attention to these guidelines:
    - The InfoPrint Manager Operations GUI is the recommended version. You can also choose to use the **Basic** version. See “Using the basic view of the GUI” on page 79 for more information.
    - The InfoPrint Manager Operations GUI requires approximately 24 MB of space on your hard drive, whether you install one view or both.
    - If you are installing over a previous version of InfoPrint Manager GUI software or you have already installed another GUI, a window will appear that gives you the option to modify the current installation. Click **Modify**, and leave the checkboxes checked for the components that are already installed.
    - If you are installing over a previous version of the InfoPrint Manager GUI software, click **yes** for any questions about replacing files. If you will be using this GUI to work with an InfoPrint Manager for Windows server, you do not need to change any of the selections from the default values.
    - If you change your system language, the interface displays properly in the new language.

---

## Installing the Administration GUI

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

Make sure that the InfoPrint Manager server is at the same level or at a higher level of service than the InfoPrint Manager Administration GUI. Otherwise, you might receive error messages like: 5010-625 Cannot recognize attribute ....

To install the **InfoPrint Manager Administration GUI** software, do this procedure:

1. Insert the *InfoPrint Manager: Common Clients* CD-ROM, LCD4-5642 into the drive. The install program will start automatically.
2. Select **Install InfoPrint Manager Clients** → **InfoPrint Manager GUIs**, and then click **Administration GUI**.
3. Follow the instructions on the installation screens, paying attention to these guidelines.
  - The InfoPrint Manager Administration GUI is the recommended version. You can also choose to use the **Basic** version. See “Using the basic view of the GUI” on page 79 for more information.
  - The InfoPrint Manager Administration GUI requires approximately 24 MB of space on your hard drive, whether you install one view or both.
  - If you are installing over a previous version of InfoPrint Manager GUI software or you have already installed another GUI, a window will appear that gives you the option to modify the current installation. Click **Modify**, and leave the checkboxes checked for the components that are already installed.
  - If you are installing over a previous version of the InfoPrint Manager GUI software, click **yes** for any questions about replacing files. If you will be using this GUI to work with an InfoPrint Manager for Windows server, you do not need to change any of the selections from the default values.
  - If you change your system language, the interface displays properly in the new language.

---

## Starting the GUIs

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

The InfoPrint Manager Administration GUI allows the administrator to access almost all of the functions available in InfoPrint Manager for AIX. See the *InfoPrint Manager for AIX: Procedures* guide, available on your *InfoPrint Manager: Publications CD-ROM*, SK4T-4017 or on the InfoPrint Solutions Company Web site at <http://www.infoprint.com/>, for additional information.

For the most recent information about InfoPrint Manager, go to the InfoPrint Solutions Company Web site at <http://www.infoprint.com/> and click **Product Publications** link.

**Note:** If you receive a communication error when using Windows XP with Service Pack 2 or Windows 2003 with Service Pack 1, you might have to include java.exe on the Exceptions tab of the Windows Firewall dialog.

## Starting from the GUI icons

To launch any of the InfoPrint Manager GUI programs, double-click on the Administration and Operations icons.

## Starting the GUIs on Windows

To launch the GUIs, double-click the appropriate icon on your desktop. For example, to launch the InfoPrint Manager Operations GUI, double-click the **Operations InfoPrint** icon on your desktop.

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

**Note:** If you open the GUI and the colors look strange (they might appear in a plaid pattern), minimize the GUI and then maximize it. The colors should return to normal. This problem is most common on Windows systems running in 256 colors (8-bit color). To prevent the problem, you can increase the color depth of your system to 16 or 24-bit color.

## Starting the InfoPrint Manager GUIs from the AIX command line

To open the InfoPrint Manager Administration GUI from the AIX command line, use one of these procedures:

- To open the standard view of the InfoPrint Manager Administration GUI, enter:  
`ipguiadvadm`
- To open a basic view of the InfoPrint Manager Administration GUI, after completing the tasks in “Using the basic view of the GUI” on page 79, enter:  
`ipguibasicadm`
- To open the standard view of the InfoPrint Manager Operations GUI, enter:  
`ipguiadv`
- To open the basic view of the InfoPrint Manager Operations GUI, enter:  
`ipguibasic`

## Starting the special version of the Operations GUI

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

The special version is installed when the InfoPrint Manager Operations GUI is installed. However, no icon will be installed on your desktop.

To invoke the special version from the AIX command line, enter:  
`ipguiadv`

To invoke the special version from Windows, you must navigate to the path where the GUI is installed. By default, that path is **C:\Program Files\IBM\Infoprint GUI** and invoke the **Standard0perSBC** shortcut.

---

## Uninstalling the GUIs on Windows

To uninstall the InfoPrint Manager GUIs:

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





---

## Chapter 11. InfoPrint Manager Print-on-Demand software

The Print-on-Demand feature provides easy to use graphical user interfaces for print submission in production and commercial print environments including job ticketing, assembling of print jobs, and finishing. The InfoPrint Manager Print-on-Demand (POD) feature works with two clients:

- InfoPrint Submit Express
- InfoPrint Job Ticketer

The exact functions that are available depend on which client you will be using.

---

### InfoPrint Submit Express

InfoPrint Submit Express is the standard client that comes with the POD feature of InfoPrint Manager and provides a variety of functions for the Print-on-Demand environment. For more information about InfoPrint Submit Express and the Print-on-Demand feature of InfoPrint Manager, see *InfoPrint Manager Print-on-Demand Feature: Submit Express User's Guide*.

**Note:** InfoPrint Submit Express replaces the InfoPrint Submit for Windows and Macintosh clients.

---

### InfoPrint Job Ticketer

InfoPrint Job Ticketer is the web based submission client used in the Print-on-Demand environment. It also comes with the POD feature of InfoPrint Manager. InfoPrint Job Ticketer is a unified solution for the creation, submission, and management of print jobs with focus on the production segment of the printing business. For more information, see the *InfoPrint Job Ticketer: User's Guide* and the *InfoPrint Job Ticketer: Administrator's Guide*.

#### Important

If you are installing the InfoPrint Job Ticketer component of the Print-on-Demand feature, you must install the Web Server before you install the Print-on-Demand Feature.



---

## Chapter 12. Using InfoPrint Select to submit a job

InfoPrint Select lets you submit and track jobs from a Windows workstation to a destination (whether print, generalized fax, or e-mail) that is managed by InfoPrint Manager. Through InfoPrint Select, you can submit jobs to InfoPrint Manager from word processors, spreadsheets, and other desktop applications. You can print from applications or from the DOS command line.

InfoPrint Select lets you:

- Specify AFP and other InfoPrint job attributes when submitting a job to the server
- Cancel and hold jobs in a queue
- Check the status of destinations before submitting jobs

For more information about these specific functions, see “Printing from applications” on page 103 and consult the help system provided with InfoPrint Select.

This section contains procedures for using InfoPrint Select on the Windows platform. These topics are covered:

- “Installing InfoPrint Select”
- “Configuring your InfoPrint Manager server to work with InfoPrint Select” on page 89
- “Creating InfoPrint Select printers” on page 94
- “Printing from applications” on page 103
- “Commands you can use with Select” on page 105

---

### Installing InfoPrint Select

Before you install InfoPrint Select, consider these conditions:

- You must have administrative privileges to install InfoPrint Select.
- If you plan to install one or both of the InfoPrint Manager GUIs as well as InfoPrint Select, the sequence of the installs is important. Since InfoPrint Select might require a system reboot, you might want to install the InfoPrint Manager GUI(s) first.
- To enable other users that do not have administrator privileges to print using InfoPrint Select, install Select in a folder where those users have read/write access. Do not install InfoPrint Select into the **Program Files** folder.
- You must adjust the configuration of the InfoPrint Manager server for InfoPrint Select to function properly. See “Configuring your InfoPrint Manager server to work with InfoPrint Select” on page 89.

To install InfoPrint Select on a Windows system from the *InfoPrint Manager: Common Clients* CD-ROM, LCD4-5642:

1. Insert the *InfoPrint Manager: Common Clients* CD-ROM into the drive.
2. Click **Install InfoPrint Products**, and then click **InfoPrint Select**.
3. Follow the instructions on the installation screens to install the program.

4. Enter the host name or IP address for the InfoPrint Manager server in the **Host:** entry field and the socket number that the InfoPrint Manager server uses for client communication in the **Socket:** entry field on the **Environment Variable Settings** window. The default socket number is **6874**. Click **Next** to continue with the InfoPrint Select installation.
5. After you have installed InfoPrint Select, the installation program asks to reboot your system. The default answer to this question is **Yes** because InfoPrint Select will not function properly until the system is rebooted. When you click **OK** or press **Enter**, your system reboots.

## Installing InfoPrint Select in silent mode

InfoPrint Select can be installed using silent mode. Silent mode eliminates the normal user interface and uses default values or response file values for all required inputs. This mode is generally used by System Administrators to push the installation onto their users' systems.

Use one of these commands from the command line or an automated script to install InfoPrint Select in silent mode:

### **InfoprintSelect.exe -quiet**

This method uses:

- No response file
- All the defaults
- Installs, repairs, or upgrades your installation of InfoPrint Select

**Note:** This method displays the splash screen and an initial progress bar.

### **InfoprintSelect.exe /s**

This method uses the response file embedded with the **InfoprintSelect.exe**.

### **InfoprintSelect.exe /s /f1"c:\setup.iss"**

This method uses a response file named **setup.iss**, which can be one of the samples provided, a modified version of a sample, or your own response file created with the **/r** option.

### **InfoprintSelect.exe /s /f1"c:\setup.iss" /f2"c:\output.log"**

This method uses a response file named **setup.iss** and logs the activity. If the installation is successful, this text appears in the **output.log**: **ResultCode=0**. The **setup.iss** can be one of the samples provided, a modified version of a sample, or your own response file created with the **/r** option.

### **Notes:**

1. To create your own response file, invoke the installer in **record mode**:

**InfoprintSelect.exe /r**

This produces a response file named **setup.iss** based on the inputs used during installation. To locate this newly created response file, search your system for **setup.iss**.

2. **InfoprintSelect.exe** is located in the **\win\InfoprintSelect** folder of the **Common Client** CD-ROM.

After you have installed InfoPrint Select, sample response files can be found in **Select\_install\_dir\Install\_Samples**. You can copy and modify these sample files as appropriate:

1. **setup.iss**, which is a sample response file used to install InfoPrint Select
2. **setup\_repair.iss**, which is a sample response file used to repair an installation of InfoPrint Select
3. **setup\_upgrade.iss**, which is a sample response file used to upgrade a previous version of InfoPrint Select
4. **setup\_remove.iss**, which is a sample response file used to remove an installation of InfoPrint Select

## Selecting enhanced or standard InfoPrint Select

Once you have successfully installed InfoPrint Select, you must determine whether you want the enhanced version of the client. If you apply the enhanced Select, users can enter job and document attributes with print jobs if the printer to which they send the job is a Select printer. You can decide not to provide this ability to end users since it requires an understanding of how to use attributes.

To apply the enhanced InfoPrint Select:

Click the Start button on your Windows system and select **Programs → InfoPrint Select → Activate Job Settings dialog**.

This action ensures that you can access the dialog panels that allow you to specify InfoPrint job attributes when submitting a job to the server.

## Removing enhanced InfoPrint Select

If you activate the enhanced InfoPrint Select and later decide that you would prefer to go back to the earlier version of InfoPrint Select, you can deactivate the enhanced InfoPrint Select by accessing the **Job Settings** window and checking the **Do not display this dialog again** check box.

## Uninstalling InfoPrint Select

To uninstall InfoPrint Select:

1. From the **Start** menu, select **Settings → Control Panel**.
2. Double-click **Add or Remove Programs**.
3. Select InfoPrint Select.
4. Click **Remove**.

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

5. Follow the instructions on the screen.

---

## Configuring your InfoPrint Manager server to work with InfoPrint Select

For InfoPrint Select to submit print, generalized fax, or e-mail jobs to InfoPrint Manager properly, you must configure each InfoPrint Manager logical destination or actual destination to accept jobs from InfoPrint Select. Use the InfoPrint Manager Administration GUI as described in this procedure to configure logical

and actual destinations correctly. To use the command line instead of the GUI, use the **pdset** command to set the **client-driver-names** attribute.

**Printing to actual destinations:** To submit jobs to actual destinations, the **logical-destinations-assigned** attribute must be set for the actual destination.

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

**Note:** To be able to complete this procedure, you must have the authority to use the **pdenable**, **pddisable**, and **pdset** commands. If you do not have that authority, your user id must be added to the access control lists (ACLs) on your InfoPrint Manager server. Information about security and how users can be authorized to InfoPrint Manager is found in the topic "Managing security for InfoPrint Manager for AIX" in the *InfoPrint Manager for AIX: Procedures* manual.

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

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

6. In the **New value** field next to **Windows client drivers**, type the name of one of the print drivers that users will use to submit jobs with InfoPrint Select.
7. Click **Add >>**.
8. Click **OK**.

## Configuring for Generalized Fax and e-mail jobs with Select

If your logical destination is configured to send jobs to either a Generalized Fax or an e-mail DSS, you also need to set the logical destination's **destination-support-system** attribute to either **generalized-fax** or **e-mail**, whichever is appropriate. You can modify this value through the **pdset** command. For example, the command sets a **destination-support-system** value of **generalized-fax** for the logical destination **fax1-ld**.

```
pdset -x "destination-support-system=generalized-fax" fax1-ld
```

---

## InfoPrint Select support for Windows 2000 Server and Windows 2003 Server

InfoPrint Select is supported on these versions of Windows systems:

- Windows 2000 Professional SP4
- Windows XP Professional SP2 or later
- Windows Server 2003 Standard Edition SP2
- Windows Server 2003 R2 Standard Edition SP2
- Windows Server 2003 Enterprise Edition SP2
- Windows Server 2003 R2 Enterprise Edition SP2
- Windows Vista Business
- Windows Vista Enterprise
- Windows Server 2008 Standard Edition

**Note:** InfoPrint Select is not supported on any 64 bit versions of Windows.

## Using InfoPrint Select in a Windows Terminal Server (WTS) Environment

InfoPrint Select can be used in a Windows Terminal Server Environment, however, some functions should be disabled by the administrator. These items need to be considered for use by WTS clients:

1. Enhanced InfoPrint Select cannot be used and should be disabled.
2. Error messages should be disabled.
3. The Select Notification client should be disabled or administrators need to assign a unique Select Notification port to each user.

### Enhanced InfoPrint Select

By default, Enhanced InfoPrint Select is disabled for each client. However, if Enhanced InfoPrint Select is enabled on a WTS client, the **Job Settings** dialog that might appear after a job submission will not be displayed in the client session console, but will be displayed in the main server console. Any files that are submitted using Enhanced InfoPrint Select will not print until **OK** is clicked on the **Job Settings** dialog of the main server console. All jobs submitted after the first one will not print until **OK** is clicked on the **Job Settings** dialog of the main server console. Therefore the ability for clients to enable Enhanced InfoPrint Select **should be disabled**.

### InfoPrint Select Error Messages

When errors are detected upon submission of a job, an error message is usually displayed. Jobs submitted by WTS clients, however, will not display this message in the client session console, but will display the message on the main server console. The file will not print until **OK** is clicked from the main server console. Therefore, Select error messages should be suppressed. When error messages are suppressed, files that fail submission to the InfoPrint Manager server for any reason will be deleted from the Windows spool for the printer. An option is available to pause the failed job, but if the option is used the administrator will need to periodically check for failed jobs and take the appropriate action to avoid filling up the disk on the server.

### Select Notifications

By default, the installation of InfoPrint Select adds the Select Notification program to the **Startup** directory of all users. The default installation will not work on WTS clients. You can choose to either disable Select Notifications for your users or you can configure and manage the Select notification ports for each user to allow each user to use Select Notifications. If you wish to allow each user to use Select Notifications, each user will need to be assigned a unique TCP/IP port on the WTS server. The administrator must make sure that each user has a unique port assigned. If two users are assigned the same port, one user will get all notification messages for both users. The other user will receive no notification messages.

### WTS Server Configuration

After InfoPrint Select is installed, do these procedures. All of the procedures must be completed from an administrator userid.

## Select.ini file

Select creates a .ini file for each userid to store that user's settings. The file is generated the first time Select is invoked by each user if it does not already exist. The file is stored in **<Select\_install\_path>\<userid>\Select.ini**. The WTS administrator should create or modify the existing file for all users. The file should look like this:

```
[User Preferences]
Notification Port=5157
Use default .att file=0
Default .att file=
[Submission Window]
Suppress=1
[Job Recovery]
Pause jobs if submission fails=0
Suppress submission errors=1
```

The key settings are:

- Notification Port=5157 - Must be set to a unique port number if Notifications are being used. If Select Notifications are not being used, it does not need to be changed.
- Suppress=1 - Suppresses the Job Settings Dialog
- Suppress submission errors=1 - Suppresses errors found during submission.
- Pause jobs if submission fails=0 - Optionally can set this to 1 to cause failed jobs to be retained on the WTS Windows spool for resubmission by the administrator.

## Client Desktop Programs

The default installation of these programs should be modified. These instructions indicate how to remove items. Instead of removing them, they can be moved to the equivalent folder under the Administrator userid or another userid.

1. Select Notification in Startup - If Select Notifications are not being used, remove the Select Notification Startup from all users by deleting **C:\Documents and Settings\All Users\Start Menu\Programs\Startup\Infoprint Select Notification**.
2. Select Menu - These should also be removed to prevent problems:
  - a. **C:\Documents and Settings\All Users\Start Menu\Programs\Infoprint Select\Activate Job Settings Dialog**
  - b. [Optional] **C:\Documents and Settings\All Users\Start Menu\Programs\Infoprint Select\Change the Notification port**
  - c. [Optional] **C:\Documents and Settings\All Users\Start Menu\Programs\Infoprint Select\Infoprint Select Notification**



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## Working with Select notifications

By default when you submit a job using InfoPrint Select, a notification profile is sent with the job. If you have the Select message windows running when you submit a print job using InfoPrint Select, notifications are requested. If the Select message window is not running, notifications are not requested. When notifications are requested, they are delivered by e-mail. InfoPrint Select does not use the standard e-mail port for notifications to avoid conflict with other SMTP servers. If you have a conflict with the port that Select is using for notification, you can select another port by following: **Start** → **Programs** → **InfoPrint Select** → **InfoPrint Select Notification** → **InfoPrint Manager Message Port**, and entering another port.

The InfoPrint Select Notification message window usually starts automatically when Windows first loads, but to start the Notification message Window at another time, go to **Start** → **Programs** → **InfoPrint Select** → **InfoPrint Select Notification**.

To turn off the Notification message window, click **X** in the upper right corner of the window and then click **OK** on the warning message.

**Note:** If you receive a communication error when using the Select Message Window with Windows XP with Service Pack 2 or Windows 2003 with Service Pack 1, you might have to include **ipnotify.exe** on the **Exceptions** tab of the **Windows Firewall** dialog.

## Setting up your own InfoPrint Select notification profile

The Select notification profile overrides any notification settings that you configure in a default job. If you do not want to use the Select notification profile, use the appropriate procedure for your operating system:

- **Windows XP**
  1. On the Windows system that InfoPrint Select is installed on, right-click **My Computer** and select **Properties**.
  2. Select the **Advanced** tab, and click **Environment Variables**.
  3. Click one of the variables listed under **System Variables** to signal that you want to create a system variable. The variable and its value will appear in the fields at the bottom of the dialog.
  4. Clear the **Variable** and **Value** fields.
  5. In the **Variable** field, type: `pnotify` and in the **Value** field type: `override_select`.
  6. Click **Set**.
  7. Verify that `pnotify` appears in the list of **System Variables** and not in the **User Variables**. If it appears in the list of **User variables**, delete it and start again from step 3.
  8. Click **OK**.
  9. Restart your system to make the changes take effect.
- **Windows 2000**
  1. On the Windows system that InfoPrint Select is installed on, right-click **My Computer** and select **Properties**.
  2. In the System Properties window, click **Advanced**.
  3. On the Advanced tab, click **Environment Variables**.

4. In the **System variables** box on the **Environment Variables** dialog, click **New**.
  5. In the **Variable Name** field, type `pdnotify` and in the **Variable Value** field, type `override_select`.
  6. Click **OK**.
  7. Verify that `pdnotify` appears in the list of **System variables** and not in the **User variables**. If it appears in the list of **User variables**, delete it and start again from step 4.
  8. Click **OK** in the **Environment Variables** dialog.
  9. Click **OK** in the System Properties window.
  10. Restart your system to make the changes take effect.
- **Windows Vista or Windows Server 2008**
    1. On the Windows system that InfoPrint Select is installed on, right-click **My Computer** and select **Properties**.
    2. In the System Properties window, click **Advanced system settings**.
    3. On the Advanced tab, click **Environment Variables**.
    4. In the **System variables** box on the **Environment Variables** dialog, click **New**.
    5. In the **Variable Name** field, type `pdnotify` and in the **Variable Value** field, type `override_select`.
    6. Click **OK**.
    7. Verify that `pdnotify` appears in the list of **System variables** and not in the **User variables**. If it appears in the list of **User variables**, delete it and start again from step 4.
    8. Click **OK** in the **Environment Variables** dialog.
    9. Click **OK** in the System Properties window.
    10. Restart your system to make the changes take effect.

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## 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:

- “Creating InfoPrint Select printers on Windows 2000 systems” on page 96
  - “Adding your first InfoPrint Select printer on Windows 2000 systems” on page 96
  - “Adding an additional InfoPrint Select printer on Windows 2000 systems” on page 98
- “Creating InfoPrint Select printers on Windows XP systems” on page 98
  - “Adding your first InfoPrint Select printer on Windows XP systems” on page 99
  - “Adding an additional InfoPrint Select printer on Windows XP systems” on page 100
- “Creating InfoPrint Select printers on Windows Vista or Windows Server 2008 systems” on page 101
  - “Adding your first InfoPrint Select printer on Windows Vista or Windows Server 2008 systems” on page 101
  - “Adding an additional InfoPrint Select printer on Windows Vista or Windows Server 2008 systems” on page 102

## 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 this 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.
- The names of destinations to use.
- The names of the drivers to associate with each destination.
- Where the driver files are located (on a CD-ROM, on a network server, or on your local system).
- The name of the server where your actual or logical destination is located in (this value is optional).

### Choosing the Right PPD

If you plan to use InfoPrint Select to print PostScript jobs to an AIX DSS (InfoPrint Manager for AIX only), BSD DSS, or Passthrough DSS (InfoPrint Manager for Windows only) printer, be sure to use the PostScript printer driver that came with your printer when you create an InfoPrint Select printer on your desktop. These drivers include PostScript Printer Definitions (PPDs) that are specific to your printer. If you submit jobs to either the AIX, BSD, or Passthrough DSS printers, do not use the printer drivers and PPDs that are provided with InfoPrint Select. They contain specific attributes that apply only to PSF DSS printers.

If you plan to submit jobs to a PSF DSS, use the printer drivers and PPDs that are provided on the *InfoPrint Manager: Common Client* CD-ROM, LCD4-5642. By default, these PPDs are installed in the **C:\Program Files\IBM\Infoprint Manager\PPDs for PSF** folder, with files in the format **IBMprinter.PPD** (where *printer* is the specific printer type) for most systems. They contain specific attributes that apply only to PSF DSS printers.

### Drivers and finishing

If you are submitting an AFP job to an IPDS printer, you can use the AFP driver that is described in Chapter 21, “Installing and configuring the AFP driver,” on page 147.

The automatic data stream transforms that PSF printers use do not always support finishing (stapling). Some PostScript drivers, however, will support some finishing options. The finishing options that are supported include saddle and edge stitch, as well as corner stitch in MO:DCA™ (Mixed Object Document Content Architecture™), using both landscape and portrait modes.

If you are using InfoPrint Select to submit PCL or PostScript jobs to a PSF printer (destination), you might discover that you cannot specify finishing options when you submit a job, even if the print driver you use supports those options. It is recommended that you either use a different method to submit those print jobs or that you submit them to an InfoPrint printer that does not transform the data stream (such as a Passthrough printer on InfoPrint Manager for Windows or an AIX printer on InfoPrint Manager for AIX).

If you cannot use a different submission method and cannot submit your jobs to a different type of InfoPrint printer, the only way to request

finishing options on PCL and PostScript jobs submitted to a PSF destination is to specify the finishing attributes for the job. You have several options:

- You can create an attributes file for Select to use that contains the finishing attributes for your job. Then when you submit your job, you designate the file containing your finishing attributes as your attributes file (see “Specifying InfoPrint attributes” on page 103 for more information).
- You can also specify the finishing options separately under the **Other** tab in the Select **Job Settings** dialog using the attributes entry (see “Specifying InfoPrint attributes” on page 103 for more information).
- You can use a default job.

A *default job* is a list of attributes that is applied to every job that a particular logical destination receives. You can use the InfoPrint Manager Administration GUI to modify the default job for the logical destination that InfoPrint Select sends jobs to so that it requests the appropriate finishing options. However, this method is not recommended for two reasons:

1. Every job that you send to that logical destination will be finished the same way. For example, if you set the **Finishing options** attribute of the default job to **staple-top-left**, every job that is submitted to that printer will be stapled.
2. A logical destination can only have one default job, and a default job can only have one finishing option set. 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.

**Note:** Actual destinations do not have default jobs.

## Creating InfoPrint Select printers on Windows 2000 systems

This section includes:

- “Adding your first InfoPrint Select printer on Windows 2000 systems”
- “Adding an additional InfoPrint Select printer on Windows 2000 systems” on page 98

### Adding your first InfoPrint Select printer on Windows 2000 systems

Before adding an InfoPrint Select printer to your Windows 2000 system, you must:

- Collect the information described in “Collecting required information” on page 95.
- Configure the server as described in “Configuring your InfoPrint Manager server to work with InfoPrint Select” on page 89.

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, click **Local printer** and make sure 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 **Use the following port**, then scroll down the list of ports until you find the **InfoPrint** port and select it. Click **Next**.
5. Click **Have Disk**.
  - a. Click **Browse**.
  - b. Navigate to the directory **C:\Program Files\IBM\Infoprint Manager\PPDs for PSF**. This directory holds the required **ibmprint.inf** file. Highlight this file.
  - c. Click **Open**.
  - d. Click **OK** to close the **Install from Disk** window.
6. On the next dialog, select the manufacturer and model of your printer and click **Next**.
7. If the driver for your printer is already installed, the **Use Existing Driver** dialog appears. Click **Next**.
8. The **Name your Printer** dialog appears. Enter a name for the printer in the field provided. This is the name by which the printer will be known to your Windows applications and the Windows desktop. Click **Next**.
9. Select the **Do not share this printer** radio button and click **Next**.
10. When you are asked **Would you like to print a test page?** select **No** and click **Next**.
11. Click **Finish**.
12. From the Windows desktop, click the Windows **Start** button and select **Settings → Printers**.
13. On the menu bar of the **Printers** window, click **File** and select **Server Properties**.
14. In the **Print Server Properties** window, click **Ports**.
15. Highlight the **InfoPrint Select** port that you want to configure and click **Configure Port**.
16. In the **InfoPrint Port Configuration** window, make sure that the **Print Server** field is showing **InfoPrint Manager**.
17. In the **Host Name** field, type the host name of your InfoPrint Manager server.
18. In the **Host Port** field, type the port number that your InfoPrint Manager server uses to communicate with client systems. The default port is 6874.
19. In the **Server name** field, specify the name of the InfoPrint Manager server (**pdserver**) where your destination is located in. If you are not sure of the correct InfoPrint Manager server name, specify the default value of \* to list all the printers on all the InfoPrint Manager servers. Specifying the server name greatly reduces the number of printers listed, which reduces the amount of time it takes to configure a port.

**Note:** If you know the name of the printer you wish to use, type it in the **Printer name** field and go to step 22 of this procedure. If you do not know the name of the printer, leave this value blank and you will receive a list of printers from which to select.
20. Click **Refresh Printer Selection List**.
21. Select the appropriate printer from the list.
22. Click **OK**.
23. Click **Close**.

*When Files Needed dialog appears:* A **Files Needed** dialog might 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:

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.dll\_** file (where *d:* is your CD-ROM drive).
  - d. Click **Open** and then **OK** to complete the configuration.

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 system, you must:

- Collect the information described in “Collecting required information” on page 95.
- Configure the server as described in “Configuring your InfoPrint Manager server to work with InfoPrint Select” on page 89.

To print to an additional InfoPrint Select printer, you must add an additional InfoPrint Select port. Otherwise the configuration is similar to that described in “Adding your first InfoPrint Select printer on Windows 2000 systems” on page 96.

To add an additional InfoPrint 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 **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 Select** from the pull-down list. Click **Next**.
5. In the dialog that opens, type a name for the new port, such as InfoPrint-2, and click **OK**. (Use a name that no other port uses.)
6. Continue by starting with step 5 of the procedure documented in “Adding your first InfoPrint Select printer on Windows 2000 systems” on page 96, configuring the new port you just added.

## **Creating InfoPrint Select printers on Windows XP systems**

This section includes:

- “Adding your first InfoPrint Select printer on Windows XP systems” on page 99

- “Adding an additional InfoPrint Select printer on Windows XP systems” on page 100

## Adding your first InfoPrint Select printer on Windows XP systems

Before adding an InfoPrint Select printer to your Windows XP system, you must:

- Collect the information described in “Collecting required information” on page 95.
- Configure the server as described in “Configuring your InfoPrint Manager server to work with InfoPrint Select” on page 89.

To add an InfoPrint Select printer to your Windows XP system:

1. From the Windows desktop, click **Start** → **Settings** → **Printers and Faxes**.
2. The **Add Printer Wizard** window displays. Click **Next**.
3. In the **Local or Network Printer** dialog, click **Local printer** and make sure 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 port and select it. Click **Next**.
5. Click **Have Disk**.
  - a. Click **Browse**.
 

**Note:** If you are using a printer driver other than those provided with InfoPrint Manager or Select, specify that printer driver now.
  - b. Navigate to the directory **C:\Program Files\IBM\Infoprint Manager\PPDs for PSF**. This directory holds the required **ibmprint.inf** file. Highlight this file.
  - c. Click **Open**.
  - d. Click **OK** to close the **Install from Disk** window.
6. Select the manufacturer and model of your printer and click **Next**.
7. If the driver for your printer is already installed, the **Use Existing Driver** dialog appears. Click **Next**.
8. The **Name your Printer** dialog appears. Enter a name for the printer in the field provided. This is the name by which the printer will be known to your Windows applications and the Windows desktop. Click **Next**.
9. Select the **Do not share this printer** radio button and click **Next**.
10. When you are asked **Would you like to print a test page?** select **No** and click **Next**.
11. Click **Finish**.
12. On the menu bar of the **Printers and Faxes** window, click **File** and select **Server Properties**.
13. In the **Print Server Properties** window, click **Ports**.
14. Highlight the **InfoPrint Select** port that you want to configure and click **Configure Port**.
15. In the **InfoPrint Port Configuration** window, make sure that the **Print Server** field shows **InfoPrint Manager**.
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.
18. In the **Server name** field, specify the name of the Manager server (**pdserver**) where your destination is located in. If you are not sure of the correct Manager server name, specify the default value of \* to list all the printers on all the Manager servers. Specifying the server name greatly reduces the number of printers listed, which reduces the amount of time it takes to configure a port.

**Note:** If you know the name of the printer you wish to use, type it in the **Printer name** field and go to step 21 of this procedure. If you do not know the name of the printer, leave this value blank and you will receive a list of printers from which to select.

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

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

To add additional InfoPrint Select printers to your environment, follow the procedure described in "Adding an additional InfoPrint Select printer on Windows XP systems."

## **Adding an additional InfoPrint Select printer on Windows XP systems**

Before adding an InfoPrint Select printer to your Windows XP system, you must:

- Collect the information described in "Collecting required information" on page 95.
- Configure the server as described in "Configuring your InfoPrint Manager server to work with InfoPrint Select" on page 89.

To print to an additional InfoPrint Select printer, you must add an additional InfoPrint Select port. Otherwise the configuration is similar to that described in "Adding your first InfoPrint Select printer on Windows XP systems" on page 99.



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

1. From the Windows desktop, click **Start** → **Settings** → **Printers and Faxes** → **Add Printer**.
2. Select **Add a printer**. The **Add Printer Wizard** window displays. Click **Next**.
3. In the **Local or Network Printer** dialog, select **Local printer** and clear the **Automatically detect and install my Plug and Play Printer** checkbox. Click **Next**.
4. Click **Add port** and highlight **InfoPrint Select** from the pull-down list. Click **Next**.
5. In the dialog that opens, type a name for the new port, such as InfoPrint-2, and click **OK**. (Use a name that no other port uses.)
6. Continue by starting with step 5 of the procedure documented in “Adding your first InfoPrint Select printer on Windows XP systems” on page 99, configuring the new port you just added.

## Creating InfoPrint Select printers on Windows Vista or Windows Server 2008 systems

This section includes:

- “Adding your first InfoPrint Select printer on Windows Vista or Windows Server 2008 systems”
- “Adding an additional InfoPrint Select printer on Windows Vista or Windows Server 2008 systems” on page 102

### Adding your first InfoPrint Select printer on Windows Vista or Windows Server 2008 systems

Before adding an InfoPrint Select printer to your Windows Vista or Windows Server 2008 system, you must:

- Collect the information described in “Collecting required information” on page 95.
- Configure the server as described in “Configuring your InfoPrint Manager server to work with InfoPrint Select” on page 89.

To add an InfoPrint Select printer to your Windows Vista or Windows Server 2008 system:

1. From the Windows desktop, click **Start** → **Settings** → **Printers**.
2. Select **Add a printer**. The **Add Printer** window displays. Select **Add a local printer**.
3. On the **Choose a printer port** page, click **Use an existing port**, then scroll down the list of ports until you find the port and select it. Click **Next**.
4. Click **Have Disk**.
  - a. Click **Browse**.

**Note:** If you are using a printer driver other than those provided with InfoPrint Manager or Select, specify that printer driver now.

- b. Click **Open**.
  - c. Click **OK** to close the **Install From Disk** window.
5. 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 that appears. Click **Next**. The **Type a printer name** dialog appears.

7. Enter a name for the printer in the field provided. This is the name the printer is known to your Windows applications and the Windows desktop. Click **Next**.
8. Click **Finish**.
9. On the menu bar of the **Printers** window, click **Organize** and select **Properties**.
10. In the **Print Properties** window, click **Ports**.
11. Highlight the **InfoPrint Select** port that you want to configure and click **Configure Port**.
12. In the **InfoPrint Port Configuration** window, make sure that the **Print Server** field displays InfoPrint Manager.
13. In the **Host Name** field, type the host name of your InfoPrint Manager server.
14. 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.
15. In the **Server name** field, specify the name of the InfoPrint Manager server (**pdserver**) where your destination is located in. If the InfoPrint Manager server name is not known, specify the default value of \* to list all the printers on all the InfoPrint Manager servers. Specifying the server name reduces the number of printers listed, which reduces the time it takes to configure a port.

**Note:** If you know the name of the printer to use, type it in the **Printer name** field and go to step 18 of this procedure. If you do not know the name of the printer, leave this value blank and you will receive a list of printers from which to select.

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

To add additional InfoPrint Select printers to your environment, follow the procedure described in “Adding an additional InfoPrint Select printer on Windows Vista or Windows Server 2008 systems.”

### **Adding an additional InfoPrint Select printer on Windows Vista or Windows Server 2008 systems**

Before adding an InfoPrint Select printer to your Windows Vista or Windows Server 2008 system, you must:

- Collect the information described in “Collecting required information” on page 95.
- Configure the server as described in “Configuring your InfoPrint Manager server to work with InfoPrint Select” on page 89.

To print to an additional InfoPrint Select printer, you must add an additional InfoPrint Select port. For more information, see “Adding your first InfoPrint Select printer on Windows Vista or Windows Server 2008 systems” on page 101.

To add an additional InfoPrint printer to your Windows Vista or Windows Server 2008 system, follow these steps:

1. From the Windows desktop, click **Start → Settings → Printers**.
2. Select **Add a printer**. The **Add Printer** window displays. Select **Add a local printer**.

3. Click **Create a new port** and highlight **InfoPrint Select** from the pull-down list. Click **Next**.
4. 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.)
5. To configure the new port just added, continue with step 4 on page 101 of the procedure documented in “Adding your first InfoPrint Select printer on Windows Vista or Windows Server 2008 systems” on page 101.

---

## Printing from applications

These must be kept in mind when printing from applications with InfoPrint Select:

### Printing Considerations

InfoPrint Select works with the print facility of each application, so printing from every program is a little different. A typical application might allow you to specify a printer other than the default, the number of copies, or a range of pages.

If the printer selected (or your default printer) is an InfoPrint Manager Select printer, your job is sent to the InfoPrint server.

## Checking printer status

To check the status of your printer before committing a print job, follow the appropriate procedure below for your version of Windows:

- Windows 2000, click **Start** → **Settings** → **Printers**
- Windows XP, click **Start** → **Settings** → **Printers and Faxes**
- Windows Vista Business or Enterprise, click **Start** → **Settings** → **Printers**
- Windows 2008 Standard Server, click **Start** → **Settings** → **Printers**

Select the printer that you want to check. Right-click your selection and select **View IPM Printer Status**. The **Enabled** and **Status** columns reflect the current state of actual and logical destinations that could be used to process the job. If there is a backup printer defined for your printer, it will be listed in the **Backup Printer** column. A backup printer is a backup actual destination. To add a backup actual destination, your administrator can set the **backup-destinations** attribute for the printer that you want to backup. See the *InfoPrint Manager Reference* for more information.

## Specifying InfoPrint attributes

The enhanced InfoPrint Select client lets you send InfoPrint attributes with your print jobs. Once you activate the attributes dialog (see “Selecting enhanced or standard InfoPrint Select” on page 89), the **Job Settings** window appears when you submit a job. By clicking on the **Scheduling** tab, you can modify the default scheduling values on the InfoPrint server from your Select client. By clicking on the **Other** tab, you can:

- Specify an attribute file that you have created with particular values that will be passed onto the InfoPrint server (for example, **C:\combo.att**).
- Specify an individual attribute that will be passed onto the InfoPrint server (for example, **job-name=Job1**).
- **Suppress job submission error messages** that lets you disable submission error message boxes. This enables unattended operation.

- **Re-spool jobs if submission fails** that lets you automatically re-spool failed job submissions. Re-spooled jobs will be placed in the windows print queue in a paused state. The reason for the paused state will be shown in the "Comments" column of the printer dialog if the user has administrator privileges. To resubmit the print job you need to highlight the job in the printer dialog, then **Restart** and **Resume** the job. This allows the Windows printing mechanism to resend the data from the beginning.

The **combo.att** file cited above is a sample file which contains this:

```
printer-models-requested = InfoPrint4000
printer-locations-requested = 'Building 025'
job-priority = 25
job-retention-period = 01:30
```

For more information about additional attributes and the syntax for specifying them, see both the InfoPrint Select online help and the *InfoPrint Manager: Reference manual*.

#### Notes:

1. Before specifying any InfoPrint attributes, For specific information and syntax rules, see the *InfoPrint Manager: Reference*.
2. The InfoPrint Select **Other** tab does not contain a syntax checker, so verify that the format of attributes, specified in either an attributes file or as individual attributes, are in the correct format. If there are syntax errors, you will receive the same messages provided for syntax errors on commands sent from a command line.
3. If you specify the same InfoPrint attribute from different locations with different values, please note that this hierarchy is how InfoPrint Manager determines what to send with the job:
  - a. Values specified in the **Attributes** field on the **Other** tab.
  - b. Values specified in the **Attributes file** field on the **Other** tab.
  - c. Any values specified on either the **General**, **Scheduling**, or **Messages** tab.

## Viewing and canceling jobs

After you have submitted your job, InfoPrint Select lets you access the InfoPrint server queues to view their status and hold, cancel, or release jobs. Use this procedure:

1. From the **Start** menu on your Windows client, access the **Settings** → **Printers** window.
2. From the **Printers** window, right-click the printer and select **View IPM Queue**.
3. From the *printer\_name* **InfoPrint Manager Jobs** window, you can hold, cancel, or release jobs in the queue on the InfoPrint server.

## Sending faxes or e-mail from InfoPrint Select

If the InfoPrint Manager Select printer is configured to send jobs to a generalized fax or an e-mail InfoPrint DSS (as described in "Configuring for Generalized Fax and e-mail jobs with Select" on page 90), then a window appears allowing you to enter either the fax number or the e-mail address, as well as other optional information.

---

## Commands you can use with Select

Typically, InfoPrint Select is used to let users print to InfoPrint Manager destinations from existing Windows applications (usually through the **Print** option on the **File** menu). In addition, you can use several InfoPrint commands that can be issued at a Command Prompt on the client system.

**Note:** If you are using the InfoPrint commands and want to receive notifications, you can install the Notification Client from the *InfoPrint Manager: Common Clients* CD-ROM, LCD4-5642.

Information about security and how users can be authorized to InfoPrint Manager is found in the "Managing security for InfoPrint Manager for AIX" section in the *InfoPrint Manager for AIX: Procedures* manual.

InfoPrint Manager lets authorized users (normally all users) use these InfoPrint commands:

- pdls** Lists selected attribute values for a job, destination, or other InfoPrint object
- pdpr** Submits a job to a logical or actual destination
- pdq** Queries the status of selected jobs, of all jobs submitted to a logical destination, or of all jobs assigned to an actual destination

InfoPrint Manager lets authorized users (the job owner is usually authorized) use these InfoPrint commands:

- pdmod** Modifies the attributes of submitted jobs or of the documents in them
- pdrm** Deletes jobs

InfoPrint Manager allows only authorized users to use these InfoPrint commands:

- pdaccount** Collects summary accounting information for a specified time period in a comma delimited format about actual destinations on one or more servers. This information can be filed and imported into a spread sheet to calculate the cost of consumables, the usage rate of printers, the cost for each user, and so forth.
- pdcreate** Creates logical destinations, queues, actual destinations, default jobs, default documents, media, auxiliary sheets, and resource contexts.
- pdclean** Removes all jobs from a server, logical destination, queue, or actual destination.
- pddelete** Deletes servers, logical destinations, queues, actual destinations, default jobs, default documents, media, auxiliary sheets, resource contexts, and jobs.
- pddisable** Prevents destinations from accepting jobs and logs from logging.
- pdenable** Enables destinations to accept jobs and logs to log.

**pdpause**

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

**pdpromote**

Advances a job to the head of the queue.

**pdreorder**

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

**pdresubmit**

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

**pdresume**

Enables paused objects to resume operation.

**pdset** Sets or changes the values of attributes describing InfoPrint objects.

**pdshutdown**

Stops servers or actual destinations.

**pdspace**

Backspaces or forward spaces a PSF physical printer.

**pddeviceop**

Perform device operation on device associated with specified actual destination.

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

## Querying destination attributes

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

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

## Submitting a job

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

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

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

## Querying jobs

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

```
pdq -d london
```

InfoPrint returns information similar to this:

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

## Specifying the destination name

To print from the command line to a single destination without having to specify the **-p** flag or its argument with each job, you can define the destination name on your system:

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





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## Chapter 13. Using the InfoPrint AIX client

The InfoPrint AIX client is installed on all InfoPrint AIX servers with the **InfoPrint Manager for AIX Base Server**. To install the InfoPrint AIX client on any AIX servers that do not have InfoPrint Manager for AIX, you can use either the *InfoPrint Manager Common Clients* CD-ROM, LCD4-5642 or the *InfoPrint Manager for AIX Base Server* CD-ROM, LCD4-5654. This client can be used to send commands to InfoPrint Manager for AIX or Windows servers. The InfoPrint AIX client supports files greater than 2 GB in size.

The InfoPrint AIX client lets you enter InfoPrint commands on the AIX command line. It also lets you enter **enq**, **lp**, **lpr**, and **qprt** commands. It has no graphical user interface.

**Note:** For the latest information about installing the InfoPrint AIX client, consult the installation procedures on either the InfoPrint Manager for AIX site or the InfoPrint Manager for Windows site, both at <http://www.infoprint.com>.

---

### Installing the InfoPrint AIX client

**Attention:** The InfoPrint AIX client and the InfoPrint server are available in these languages:

- English
- French
- German
- Italian
- Japanese
- Spanish
- Korean

You should associate the AIX client with an InfoPrint server running in your language.

To install the InfoPrint AIX client on an AIX system where you have not installed the server:

1. Log onto AIX as **root**.
2. Insert the *InfoPrint Manager Common Clients* CD-ROM, LCD4-5642, into the drive.
3. If this is the first time you are installing software on this AIX system, create the **/cdrom** file system.
  - a. Start the System Management Interface Tool (SMIT).
    - To start the AIX windows version of SMIT, enter this command:  
`smit cdrfs`
    - To start the ASCII version of SMIT, enter this command:  
`smitty cdrfs`

The CDROM File Systems panel is displayed.

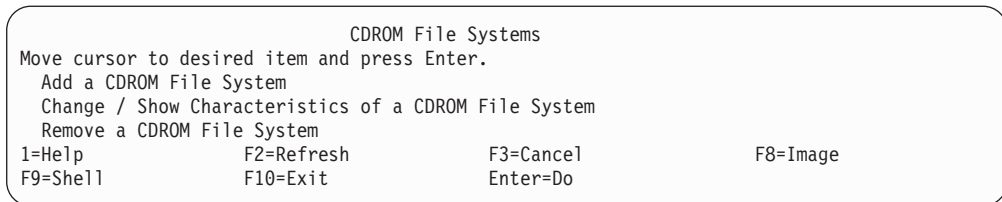


Figure 3. SMIT CDROM File Systems panel

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

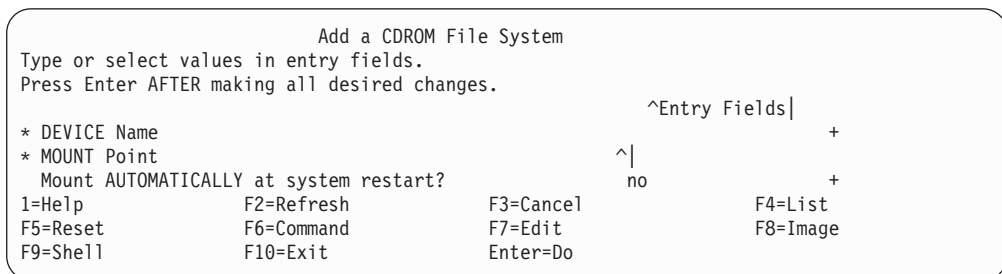


Figure 4. SMIT Add a CDROM File System panel

- c. In the **DEVICE name** field, enter the identifier of your CD-ROM drive.
  - d. In the **MOUNT POINT** field, enter /cdrom.
  - e. Click **OK** (AIX windows version) or press **Enter** (ASCII version).
  - f. Click **Cancel** (AIX windows version) or press **F10** (ASCII version) to exit from SMIT.
4. To mount the CD-ROM, enter:
 

```
mount /cdrom
```
  5. Enter this command to install the AIX client:
 

```
/cdrom/setup -c -n ServerName
 -p PortNumber -P DestinationName -l locale
```

where:

*ServerName*

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

*PortNumber*

is the number of the port for the InfoPrint server, usually 6874 (**PD\_SOCKET**). Remember to select one that is running in your language.

*DestinationName*

is the default logical destination that the AIX client submits jobs to. The **-P DestinationName** flag is optional.

*locale*

is the locale of the AIX client. The default is **en\_US** (U. S. English). The **-l locale** flag is optional.

6. When the command completes processing, you should shutdown and restart your AIX server so that all changes can take effect.

---

## Commands you can use from the InfoPrint AIX client

Information about security and how users can be authorized to InfoPrint Manager is found in the topic "Managing security for InfoPrint Manager for AIX" in the *InfoPrint Manager for AIX: Procedures* manual.

InfoPrint Manager lets authorized users (normally all users) use these InfoPrint commands:

- pdls** Lists selected attribute values for a job, destination, or other InfoPrint object
- pdpr** Submits a job to a logical or actual destination
- pdq** Queries the status of selected jobs, of all jobs submitted to a logical destination, or of all jobs assigned to an actual destination

InfoPrint Manager lets authorized users (the job owner is usually authorized) use these InfoPrint commands:

- pdmod** Modifies the attributes of submitted jobs or of the documents in them
- pdrm** Deletes jobs

InfoPrint Manager allows only authorized users to use these InfoPrint commands:

- pdaccount** Collects summary accounting information for a specified time period in a comma delimited format about actual destinations on one or more servers. This information can be filed and imported into a spread sheet to calculate the cost of consumables, the usage rate of printers, the cost for each user, and so forth.
- pdcreate** Creates logical destinations, queues, actual destinations, default jobs, default documents, media, auxiliary sheets, and resource contexts.
- pdclean** Removes all jobs from a server, logical destination, queue, or actual destination.
- pddelete** Deletes servers, logical destinations, queues, actual destinations, default jobs, default documents, media, auxiliary sheets, resource contexts, and jobs.
- pddeviceop** Performs a device operation on a device associated with a specified actual destination.
- pddisable** Prevents destinations from accepting jobs and logs from logging.
- pdenable** Enables destinations to accept jobs and logs to log.
- pdpause** Pauses a job, actual destination, queue, or all the queues and actual destinations in a server.

**pdpromote**

Advances a job to the head of the queue.

**pdreorder**

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

**pdresubmit**

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

**pdresume**

Enables paused objects to resume operation.

**pdset** Sets or changes the values of attributes describing InfoPrint objects.

**pdshutdown**

Stops servers or actual destinations.

**pdspace**

Backspaces or forward spaces a PSF physical printer.

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

## Examples using the InfoPrint AIX client

The *InfoPrint Manager: Reference* and the command man pages show several examples of each command that you can issue from the InfoPrint AIX client. This section contains examples using the commands to perform some common tasks.

### Filtering destinations

To find a destination near you that can print two-sided PostScript jobs, enter:

```
pdls -c destination -f "destination-realization==actual
 && document-format-supported==postscript && sides-supported==2"
 -r "destination-location" *:
```

The **-f** flag specifies that you want to either filter on or list only actual destinations that support PostScript format and two-sided printing. The **-r** flag specifies that you want to request where the actual destinations reside. The asterisk means that you want to check every server. The blank after the colon means that you want to check every destination in every server. The backslash prevents the shell from interpreting the asterisk as a special character.

InfoPrint returns information similar to this:

```
caxton: destination-location = 3rd floor E
elzevir: destination-location =
morris: destination-location = 1st floor W
```

You decide to print your job on morris. To determine a logical destination that routes jobs to morris, enter:

```
pdls -c destination -f "destination-associated-destinations==morris" *:
```

## Querying destination attributes

To determine whether morris is ready to receive jobs, enter:

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

## Submitting a print job

To submit the file myjob to the logical destination london, requesting two-sided printing on the actual destination morris, enter:

```
pdpr -d london -x "destination-name-requested=morris sides=2" myjob
```

## Querying jobs

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

```
pdq -d london
```

InfoPrint returns information similar to this:

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

## Modifying job attributes

After submitting myjob, you decide that you want to print two copies and that you want to retain it for one hour after it prints. When you queried your jobs submitted to london, you saw that the local job ID is 14 and that the job is still pending, so it can still be modified. Enter:

```
pdmod -n 2 -x "job-retention-period=1:00" 14
```

## Modifying destination attributes

You want to restrict the actual destination Printer3 so that it does not accept very large jobs. To do this:

1. Before you can modify the attributes of a destination, you must disable it.

Enter:

```
pddisable Printer3
```

2. To specify a new maximum job size of 5 MB, enter:

```
pdset -c destination -x "job-size-range-ready=0:5000000" Printer3
```

3. To reenable the actual destination, enter:

```
pdenable Printer3
```

## Shutting down an actual destination

The printer device represented by the actual destination caxton is out of order. To shut down caxton until the printer device can be repaired and to associate a message with caxton, enter:

```
pdshutdown -c destination -m "Service called Tuesday at 3PM" caxton
```



---

## Chapter 14. Using the InfoPrint Manager HP-UX client

The InfoPrint Manager HP-UX client enables users of HP-UX 11.0 and later to issue InfoPrint commands over a TCP/IP-connected network to an InfoPrint Manager for AIX or an InfoPrint Manager for Windows server. Using a UNIX<sup>®</sup> command line or shell script, you can query server, printer, and print job status; change the state of a server, printer, or print job; create, delete, or reorder a print job on the server. The HP-UX client supports files larger than 2 GB in size.

To install the HP-UX client on an HP-UX server, you can use the *InfoPrint Manager Common Clients* CD-ROM, LCD4-5642.

Access to the InfoPrint Manager server and to the InfoPrint Manager commands is controlled on the system where the server is installed. For information about providing access, see *InfoPrint Manager for AIX: Procedures*.

**Note:** For the latest information about installing the InfoPrint Manager HP-UX client, consult the installation procedures on either the InfoPrint Manager for AIX site or the InfoPrint Manager for Windows site, both at

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

---

### Installing the InfoPrint Manager HP-UX client

**Attention:** The HP-UX client and the InfoPrint server are available in these languages:

- English
- French
- German
- Italian
- Japanese
- Spanish
- Korean

To use a non-English version of InfoPrint Manager, your AIX system must have installed the file sets for that language. You should associate the HP-UX client with an InfoPrint server running in your language.

Before installing the InfoPrint Manager HP-UX client, make sure you have **libstdc++.sl.5** installed on your system.

To install the InfoPrint Manager HP-UX client:

1. Log onto the HP-UX system as **root**.
2. Create a directory called **/usr/lpp/pd/bin** on the HP-UX client system. This directory must have approximately two megabytes of available storage.
3. Copy the **pdcommand.HP-UX.11** file from the *InfoPrint Manager Common Clients* CD-ROM, LCD4-5642, to the **/usr/lpp/pd/bin** directory.
4. Change to the **/usr/lpp/pd/bin** directory.
5. Type these commands:

```
chmod 755 pdcommand
mv pdcommand.HP-UX.11 pdcommand
```

6. Create links to the **pdcommand** for each supported command that you wish to make available. See "Commands you can use from the InfoPrint HP-UX client" for the names of the supported commands.

For example, to support the **pdls** command, which lists information about InfoPrint objects, type this command:

```
ln -s pdcommand pdls
```

7. Create a shell script in the language of your choice or manually set these environment variables:

#### **PDHOST**

The name of the host where the InfoPrint server is located.

#### **PD\_SOCKET**

The TCP/IP socket number of the port for the InfoPrint server. The default socket is **6874**. Use **6874** unless your system has been specifically set up differently, or you have more than one InfoPrint Manager server running on the host.

#### **PDPRINTER**

The default logical destination in the InfoPrint Manager server. The commands will use this value if you do not specify a logical destination (the **-P DestinationName** flag) on the command line.

**PATH** Add the **/usr/lpp/pd/bin** directory to the value of this variable. It must be the first directory in the path; otherwise, a conflict with the **HPDPS** daemon exists.

This example shows a Korn shell script to set the environment variables:

```
export PDHOST="hostname-of-infoprint-server"
export PD_SOCKET="6874"
export PDPRINTER="name-of-default-logical-destination"
export PATH=/usr/lpp/pd/bin:$PATH
```

8. Test the system:
  - a. Open a command line window.
  - b. Set the environment variables as directed in Step 7, either manually or using a shell script.
  - c. Issue one of the chosen commands, followed by the **-h** flag to display the syntax of that command and verify the installation.

For example:

```
pdls -h
```
  - d. Arrange for all users of the HP-UX client to set the environment variables as directed in Step 7, whenever they log in. You can use either of these methods:
    - Set the environment variables in the default shell configuration file, either individually or by invoking the shell script.
    - Tell each user to set the environment variables in his or her own shell configuration file, either individually or by invoking the shell script.

---

## Commands you can use from the InfoPrint HP-UX client

Information about security and how users can be authorized to InfoPrint Manager is found in the topic "Managing security for InfoPrint Manager for AIX" in the *InfoPrint Manager for AIX: Procedures* manual.

InfoPrint Manager lets authorized users (normally all users) use these InfoPrint commands:



- pdls** Lists selected attribute values for a job, destination, or other InfoPrint object
- pdpr** Submits a job to a logical or actual destination
- pdq** Queries the status of selected jobs, of all jobs submitted to a logical destination, or of all jobs assigned to an actual destination

InfoPrint Manager lets authorized users (the job owner is usually authorized) use these InfoPrint commands:

- pdmod** Modifies the attributes of submitted jobs or of the documents in them
- pdrm** Deletes jobs

InfoPrint Manager allows only authorized users to use these InfoPrint commands:

- pdaccount** Collects summary accounting information for a specified time period in a comma delimited format about actual destinations on one or more servers. This information can be filed and imported into a spread sheet to calculate the cost of consumables, the usage rate of printers, the cost for each user, and so forth.
- pdcreate** Creates logical destinations, queues, actual destinations, default jobs, default documents, media, auxiliary sheets, and resource contexts.
- pdclean** Removes all jobs from a server, logical destination, queue, or actual destination.
- pddelete** Deletes servers, logical destinations, queues, actual destinations, default jobs, default documents, media, auxiliary sheets, resource contexts, and jobs.
- pddeviceop** Perform device operation on device associated with specified actual destination.
- pddisable** Prevents destinations from accepting jobs and logs from logging.
- pdenable** Enables destinations to accept jobs and logs to log.
- pdpause** Pauses a job, actual destination, queue, or all the queues and actual destinations in a server.
- pdpromote** Advances a job to the head of the queue.
- pdreorder** Reassigns a job to an actual destination or to the unassigned jobs area in the same server or in another server, and lets you schedule it immediately before or after another job.
- pdresubmit** Resubmits a job, all the jobs submitted to a logical destination, or all the jobs in a queue to another logical destination.

**pdresume**

Enables paused objects to resume operation.

**pdset** Sets or changes the values of attributes describing InfoPrint objects.

**pdshutdown**

Stops servers or actual destinations.

**pdspace**

Backspaces or forward spaces a PSF physical printer.

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

## Examples using the InfoPrint HP-UX client

The *InfoPrint Manager: Reference* and the command man pages show several examples of each command that you can issue from the InfoPrint HP-UX client. This section contains examples using the commands to perform some common tasks.

### Filtering destinations

To find a destination near you that can print two-sided PostScript jobs, enter:

```
pdls -c destination -f "destination-realization==actual
&& document-format-supported==postscript && sides-supported==2"
-r "destination-location" *:
```

The **-f** flag specifies that you want to either filter on or list only actual destinations that support PostScript format and two-sided printing. The **-r** flag specifies that you want to request where the actual destinations reside. The asterisk means that you want to check every server. The blank after the colon means that you want to check every destination in every server. The backslash prevents the shell from interpreting the asterisk as a special character.

InfoPrint returns information similar to this:

```
caxton: destination-location = 3rd floor E
elzevir: destination-location =
morris: destination-location = 1st floor W
```

You decide to print your job on morris. To determine a logical destination that routes jobs to morris, enter:

```
pdls -c destination -f "destination-associated-destinations==morris" *:
```

### Querying server status

To query the status of the InfoPrint server, enter:

```
pdls -c server
```

### Querying device status

To query the status of all printers on the InfoPrint server whose hostname is pauper, enter:

```
pdls -c printer pauper
```

## Querying a print job

To submit the file `myjob` to the logical destination `london`, requesting two-sided printing on the actual destination `morris`, enter:

```
pdpr -d london -x "destination-name-requested=morris sides=2" myjob
```

## Submitting a print job

To submit the file `newjob` to the logical destination `boston`, requesting single-sided printing on the actual destination `printer1`, enter:

```
pdpr -d boston -x "destination-name-requested=printer1 sides=1" newjob
```

## Querying jobs

To list the jobs associated with logical destination `ld1` on the server `newyork`, showing detailed information (`-r verbose`) and not filtering for particular criteria, such as the job submitter (`-F`), enter:

```
pdq -p newyork:ld1 -r verbose -F
```

## Modifying the job name

To change the **job name** attribute of one of the jobs that was listed in “Querying jobs,” enter:

```
pdmod -x "job-name=NewJobName" newyork:job_ID
```

## Removing a job

To remove one of the jobs that was listed in “Querying jobs,” enter:

```
pdrn newyork:job_ID
```



---

## Chapter 15. Using the InfoPrint Manager Sun Solaris client

The InfoPrint Manager Sun Solaris client enables users of SunOS 5.7 (equivalent to Sun Solaris 7) and later to issue InfoPrint commands over a TCP/IP-connected network to an InfoPrint Manager for AIX or an InfoPrint Manager for Windows server. Using a UNIX command line or shell script, you can query server, printer, and print job status; change the state of a server, printer, or print job; create, delete, or reorder a print job on the server. The Sun Solaris client supports files larger than 2 GB in size.

To install the InfoPrint Manager Sun Solaris client, you can use the *InfoPrint Manager: Common Clients* CD-ROM, LCD4-5642.

Access to the InfoPrint Manager server and to the InfoPrint Manager commands is controlled on the system where the server is installed. For information about providing access, see *InfoPrint Manager for AIX: Procedures*.

**Note:** For the latest information about installing the InfoPrint Manager Sun Solaris client, consult the installation procedures on either the InfoPrint Manager for AIX site or the InfoPrint Manager for Windows site, both at <http://www.infoprint.com>.

---

### Installing the InfoPrint Manager Sun Solaris client

**Attention:** The Sun Solaris client and the InfoPrint server are available in these languages:

- English
- French
- German
- Italian
- Japanese
- Spanish
- Korean

You should associate the Sun Solaris client with an InfoPrint server running in your language.

Before installing the InfoPrint Manager Sun Solaris client, make sure you have **libstdc++.so.6** installed on your system.

To install the InfoPrint Manager Sun Solaris client, follow these steps:

1. Log on to the Sun Solaris client system as **root**.
2. Create a directory called **/usr/lpp/pd/bin** on the Sun Solaris client system. This directory must have approximately one megabyte of available storage.
3. Copy the **pdcommand.solaris.7** file from the *InfoPrint Manager: Common Clients* CD-ROM, LCD4-5642, to the **/usr/lpp/pd/bin** directory.
4. Change to the **/usr/lpp/pd/bin** directory.
5. Type this command:

```
mv pdcommand.solaris.7 pdcommand
```

6. Create links to the **pdcommand** for each supported command that you wish to make available. See "Commands you can use from the InfoPrint Sun Solaris client" for the names of the supported commands.

For example, to support the **pdls** command, which lists information about InfoPrint objects, type this command:

```
ln -s pdcommand pdls
```

7. Create a shell script in the language of your choice or manually set these environment variables:

#### **PDHOST**

The name of the host where the InfoPrint server is located.

#### **PD\_SOCKET**

The TCP/IP socket number of the port for the InfoPrint server. The default socket is **6874**. Use **6874** unless your system has been specifically set up differently or you have more than one InfoPrint Manager server running on the host.

#### **PDPRINTER**

The default logical destination in the InfoPrint Manager server. The commands will use this value if you do not specify a logical destination (the **-P DestinationName** flag) on the command line.

**PATH** Add the **/usr/lpp/pd/bin** directory to the value of this variable.

This example shows a Korn shell script to set the environment variables:

```
export PDHOST="hostname-of-InfoPrint-server"
export PD_SOCKET="6874"
export PDPRINTER="name-of-default-logical-destination"
export PATH=/usr/lpp/pd/bin:$PATH
```

8. Test the system:
  - a. Open a command line window.
  - b. Set the environment variables as directed in Step 7, either manually or using a shell script.
  - c. Issue one of the chosen commands, followed by the **-h** flag to display the syntax of that command and verify the installation.

For example:

```
pdls -h
```
  - d. Arrange for all users of the Sun Solaris client to set the environment variables as directed in Step 7, whenever they log in. You can use either of these methods:
    - Set the environment variables in the default shell configuration file, either individually or by invoking the shell script.
    - Tell each user to set the environment variables in his or her own shell configuration file, either individually or by invoking the shell script.

---

## Commands you can use from the InfoPrint Sun Solaris client

Information about security and how users can be authorized to InfoPrint Manager is found in the topic "Managing security for InfoPrint Manager for AIX" in the *InfoPrint Manager for AIX: Procedures* manual.

InfoPrint Manager lets authorized users (normally all users) use these InfoPrint commands:

- pdls** Lists selected attribute values for a job, destination, or other InfoPrint object
- pdpr** Submits a job to a logical or actual destination
- pdq** Queries the status of selected jobs, of all jobs submitted to a logical destination, or of all jobs assigned to an actual destination

InfoPrint Manager lets authorized users (the job owner is usually authorized) use these InfoPrint commands:

- pdmod** Modifies the attributes of submitted jobs or of the documents in them
- pdrm** Deletes jobs

InfoPrint Manager allows only authorized users to use these InfoPrint commands:

- pdaccount** Collects summary accounting information for a specified time period in a comma delimited format about actual destinations on one or more servers. This information can be filed and imported into a spread sheet to calculate the cost of consumables, the usage rate of printers, the cost for each user, and so forth.
- pdcreate** Creates logical destinations, queues, actual destinations, default jobs, default documents, media, auxiliary sheets, and resource contexts.
- pdclean** Removes all jobs from a server, logical destination, queue, or actual destination.
- pddelete** Deletes servers, logical destinations, queues, actual destinations, default jobs, default documents, media, auxiliary sheets, resource contexts, and jobs.
- pddeviceop** Perform device operation on device associated with specified actual destination.
- pddisable** Prevents destinations from accepting jobs and logs from logging.
- pdenable** Enables destinations to accept jobs and logs to log.
- pdpause** Pauses a job, actual destination, queue, or all the queues and actual destinations in a server.
- pdpromote** Advances a job to the head of the queue.
- pdreorder** Reassigns a job to an actual destination or to the unassigned jobs area in the same server or in another server, and lets you schedule it immediately before or after another job.
- pdresubmit** Resubmits a job, all the jobs submitted to a logical destination, or all the jobs in a queue to another logical destination.

**pdresume**

Enables paused objects to resume operation.

**pdset** Sets or changes the values of attributes describing InfoPrint objects.

**pdshutdown**

Stops servers or actual destinations.

**pdspace**

Backspaces or forward spaces a PSF physical printer.

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

---

## Examples using the InfoPrint Sun Solaris client

The *InfoPrint Manager: Reference* and the command man pages show several examples of each command that you can issue from the InfoPrint Sun Solaris client. This section contains examples using the commands to perform some common tasks.

### Filtering destinations

To find a destination near you that can print two-sided PostScript jobs, enter:

```
pdls -c destination -f "destination-realization==actual
&& document-format-supported==postscript && sides-supported==2"
-r "destination-location" *:
```

The **-f** flag specifies that you want to either filter on or list only actual destinations that support PostScript format and two-sided printing. The **-r** flag specifies that you want to request where the actual destinations reside. The asterisk means that you want to check every server. The blank after the colon means that you want to check every destination in every server. The backslash prevents the shell from interpreting the asterisk as a special character.

InfoPrint returns information similar to this:

```
caxton: destination-location = 3rd floor E
elzevir: destination-location =
morris: destination-location = 1st floor W
```

You decide to print your job on morris. To determine a logical destination that routes jobs to morris, enter:

```
pdls -c destination -f "destination-associated-destinations==morris" *:
```

### Querying server status

To query the status of the InfoPrint server, enter:

```
pdls -c server
```

### Querying device status

To query the status of all printers on the InfoPrint server whose hostname is pauper, enter:

```
pdls -c printer pauper
```



## Querying a print job

To submit the file `myjob` to the logical destination `london`, requesting two-sided printing on the actual destination `morris`, enter:

```
pdpr -d london -x "destination-name-requested=morris sides=2" myjob
```

## Submitting a print job

To submit the file `newjob` to the logical destination `boston`, requesting single-sided printing on the actual destination `printer1`, enter:

```
pdpr -d boston -x "destination-name-requested=printer1 sides=1" newjob
```

## Querying jobs

To list the jobs associated with logical destination `ld1` on the server `newyork`, showing detailed information (`-r verbose`) and not filtering for particular criteria, such as the job submitter (`-F`), enter:

```
pdq -p newyork:ld1 -r verbose -F
```

## Modifying the job name

To change the **job name** attribute of one of the jobs that was listed in “Querying jobs,” enter:

```
pdmod -x "job-name=NewJobName" newyork:job_ID
```

## Removing a job

To remove one of the jobs that was listed in “Querying jobs,” enter:

```
pdrn newyork:job_ID
```



---

## Chapter 16. Using the InfoPrint Manager Linux client

The InfoPrint Manager Linux client enables users of Linux on Intel<sup>®</sup>-based machines to issue InfoPrint commands over a TCP/IP-connected network to an InfoPrint Manager for AIX or an InfoPrint Manager for Windows server. Using a UNIX command line or shell script, you can issue a variety of commands to the InfoPrint server. The Linux client requires SUSE Linux Enterprise Server 9 (i586) or Fedora Linux 10 (i586). The Linux client will support files greater than 2 GB in size.

---

### Installing the InfoPrint Linux client

To install the InfoPrint Manager Linux client:

1. Log into the Linux system as **root**.
2. If you are installing from the *InfoPrint Manager: Common Clients* CD-ROM, LCD4-5642:
  - a. Insert the CD-ROM into the drive.
  - b. Mount the file system by typing:  

```
mount /mnt/cdrom
```
  - c. Type:  

```
cd /mnt/cdrom/linux
```
  - d. Install the Linux Client package by typing:  

```
rpm -i ipr-cmd-2.0-0.i586.rpm
```
  - e. If you are upgrading from a previous version, you need to run:  

```
rpm -u ipr-cmd-2.0-0.i586.rpm
```
  - f. Unmount the file system.
  - g. Remove the CD-ROM.
3. If you are installing from the Web:
  - a. Download the Linux Client package.
  - b. Install the Linux client package by typing:  

```
rpm -i ipr-cmd-2.0-0.i586.rpm
```
4. These environment variables must be set for the InfoPrint Manager client to work. The install process puts two shell configuration files (`ipr-cmd.csh` and `ipr-cmd.sh`) in the `/etc/profile.d` directory to set them. Edit these files and provide values for:

#### **PDHOST**

The name of the host where the InfoPrint Manager server is located.

#### **PD\_SOCKET**

The TCP/IP socket number of the port for the InfoPrint Manager server. The default socket is **6874**. Use **6874** unless your system has been specifically set up differently or you have more than one InfoPrint Manager server running on the host.

#### **PDPRINTER (optional)**

The default logical destination in the InfoPrint Manager server that you want to use. The commands use this value if you do not specify a logical destination on the command line.

**Note:** Users can override these settings with their own settings.

5. Test the system:
  - a. Log off and log back on to pickup the changes.
  - b. Issue one of the commands, followed by the **-h** flag to display the syntax of that command and verify the installation.

For example:

```
pdls -h
```

---

## Commands you can use from the InfoPrint Linux client

Information about security and how users can be authorized to InfoPrint Manager is found in the topic "Managing security for InfoPrint Manager for AIX" in the *InfoPrint Manager for AIX: Procedures* manual.

InfoPrint Manager lets authorized users (normally all users) use these InfoPrint commands:

- pdls** Lists selected attribute values for a job, destination, or other InfoPrint object
- pdpr** Submits a job to a logical or actual destination
- pdq** Queries the status of selected jobs, of all jobs submitted to a logical destination, or of all jobs assigned to an actual destination

InfoPrint Manager lets authorized users (the job owner is usually authorized) use these InfoPrint commands:

- pdmod** Modifies the attributes of submitted jobs or of the documents in them
- pdrm** Deletes jobs

InfoPrint Manager allows only authorized users to use these InfoPrint commands:

- pdaccount** Collects summary accounting information for a specified time period in a comma delimited format about actual destinations on one or more servers. This information can be filed and imported into a spread sheet to calculate the cost of consumables, the usage rate of printers, the cost for each user, and so forth.
- pdcreate** Creates logical destinations, queues, actual destinations, default jobs, default documents, media, auxiliary sheets, and resource contexts.
- pdclean** Removes all jobs from a server, logical destination, queue, or actual destination.
- pddelete** Deletes servers, logical destinations, queues, actual destinations, default jobs, default documents, media, auxiliary sheets, resource contexts, and jobs.
- pddeviceop** Perform device operation on device associated with specified actual destination.

**pddisable**

Prevents destinations from accepting jobs and logs from logging.

**pdenable**

Enables destinations to accept jobs and logs to log.

**pdpause**

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

**pdpromote**

Advances a job to the head of the queue.

**pdreorder**

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

**pdresubmit**

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

**pdresume**

Enables paused objects to resume operation.

**pdset** Sets or changes the values of attributes describing InfoPrint objects.

**pdshutdown**

Stops servers or actual destinations.

**pdspace**

Backspaces or forward spaces a PSF physical printer.

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

---

## Security Considerations

Access to the InfoPrint Manager server and to the InfoPrint Manager commands is controlled on the system where the server is installed. For information about providing access, see these publications:

- *InfoPrint Manager for AIX: Procedures*
- *InfoPrint Manager for Windows: Procedures*

---

## National Language Support Considerations

InfoPrint Manager servers are available in these languages:

- English
- French
- German
- Italian
- Japanese
- Spanish
- Korean

You should associate (using PDHOST and PD\_SOCKET) the Linux client with an InfoPrint Manager server running in your language. If you are running in a language not listed in this section, associate the Linux client with an InfoPrint server running in English.

---

## Examples using the InfoPrint Linux client

The *InfoPrint Manager: Reference* contains several examples of each command that you can issue from the InfoPrint Linux client. This section contains examples using the commands to perform some common tasks.

### Filtering destinations

To find a destination near you that can print two-sided PostScript jobs, enter:

```
pdls -c destination -f "destination-realization==actual &&
document-format-supported==postscript && sides-supported==2"
-r "destination-location" *:
```

The **-f** flag specifies that you want to either filter on or list only actual destinations that support PostScript format and two-sided printing.

The **-r** flag specifies that you want to request where the actual destinations are located in.

The asterisk means that you want to check every server.

The blank after the colon means that you want to check every destination in every server.

InfoPrint returns information similar to this:

```
caxton: destination-location = 3rd floor E
elzevir: destination-location =
morris: destination-location = 1st floor W
```

You decide to print your job on morris. To determine a logical destination that routes jobs to morris, enter:

```
pdls -c destination -f "destination-associated-destinations==morris" &&
destination-realization==logical *:
```

### Querying destination attributes

To determine whether morris is ready to receive jobs, enter:

```
pdls -c destination morris
```

The enabled and destination-state values indicate whether morris is ready to receive jobs.

### Submitting a print job

To submit the file myjob to the logical destination london, requesting two-sided printing on the actual destination morris, enter:

```
pdpr -d london -x "destination-name-requested=morris sides=2" myjob
```

## Querying jobs

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

```
pdq -d london
```

InfoPrint Manager returns information similar to this:

| Job ID | Name             | Intervening State | Destination Jobs | Destination Requested | Destination Assigned |
|--------|------------------|-------------------|------------------|-----------------------|----------------------|
| 13     | Serv1:1104221000 | printing          | 0                | london                | caxton               |
| 14     | Serv1:1104221023 | pending           | 8                | london                | morris               |

## Modifying job attributes

After submitting myjob, you decide that you want to print two copies and that you want to retain it for one hour after it prints. When you queried the jobs submitted to london, you saw that the local **Job ID** is **14** and that the job is still pending, so it can be modified. To change the number of copies to two and add a retention period of one hour, enter:

```
pdmod -n 2 -x "job-retention-period=1:00" 14
```

## Modifying destination attributes

To restrict the Printer3 actual destination so that it does not accept very large jobs, complete these tasks:

1. Before you can modify the attributes of the Printer3 actual destination, you must disable it by entering:

```
pddisable Printer3
```

2. To specify a new maximum job size of 5 meg for Printer3, enter:

```
pdset -c destination -x "job-size-range-ready=0:500000" Printer3
```

3. To reenble the actual destination, enter:

```
pdenable Printer3
```

## Shutting down an actual destination

The printer device represented by the actual destination caxton is out of order. To shut down caxton until the printer device can be repaired and to associate a message with caxton, enter:

```
pdshutdown -c destination -m "Service called Tuesday at 3PM" caxton
```

---

## Uninstalling the Linux client

1. Log in as **root**.
2. Type:  

```
rpm -e ipr-cmd-2.0-0
```





---

## Chapter 17. Using the InfoPrint Manager Macintosh client

The InfoPrint Manager Macintosh client enables users of Macintosh 10.5 and later to issue InfoPrint commands over a TCP/IP-connected network to an InfoPrint Manager for AIX or an InfoPrint Manager for Windows server. Using a UNIX command line or shell script, you can query server, printer, and print job status; change the state of a server, printer, or print job; create, delete, or reorder a print job on the server. The Macintosh client supports files larger than 2 GB in size.

To install the Macintosh client on a Macintosh server, you can use the *InfoPrint Manager Common Clients* CD-ROM, LCD4-5642.

Access to the InfoPrint Manager server and to the InfoPrint Manager commands is controlled on the system where the server is installed. For information about providing access, see *InfoPrint Manager for AIX: Procedures* .

**Note:** For the latest information about installing the InfoPrint Manager Macintosh client, consult the installation procedures on either the InfoPrint Manager for AIX site or the InfoPrint Manager for Windows site, both at

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

---

### Installing the InfoPrint Manager Macintosh client

The Macintosh client and the InfoPrint server are available in these languages:

- English
- French
- German
- Italian
- Japanese
- Spanish
- Korean

To use a non-English version of InfoPrint Manager, your AIX system must have installed the file sets for that language. You should associate the Macintosh client with an InfoPrint server running in your language.

Before installing the InfoPrint Manager Linux client, make sure you have **libstdc++.6.dylib** installed on your system.

To install the InfoPrint Manager Macintosh client:

1. Log onto the Macintosh system as **root**.
2. Create a directory called **/usr/lpp/pd/bin** on the Macintosh client system. This directory must have approximately two megabytes of available storage.
3. Copy the **pdcommand.mac.105** file from the *InfoPrint Manager Common Clients* CD-ROM, LCD4-5642, to the **/usr/lpp/pd/bin** directory.
4. Change to the **/usr/lpp/pd/bin** directory.
5. Type these commands:

```
chmod 755 pdcommand
mv pdcommand.mac.105 pdcommand
```

6. Create links to the **pdcommand** for each supported command that you wish to make available. See “Commands you can use from the InfoPrint HP-UX client” on page 116 for the names of the supported commands.

For example, to support the **pdls** command, which lists information about InfoPrint objects, type this command:

```
ln -s pdcommand pdls
```

7. Create a shell script in the language of your choice or manually set these environment variables:

**PDHOST**

The name of the host where the InfoPrint server is located.

**PD\_SOCKET**

The TCP/IP socket number of the port for the InfoPrint server. The default socket is **6874**. Use **6874** unless your system has been specifically set up differently, or you have more than one InfoPrint Manager server running on the host.

**PDPRINTER**

The default logical destination in the InfoPrint Manager server. The commands will use this value if you do not specify a logical destination (the **-P DestinationName** flag) on the command line.

**PATH** Add the **/usr/lpp/pd/bin** directory to the value of this variable.

This example shows a Korn shell script to set the environment variables:

```
export PDHOST="hostname-of-infoprint-server"
export PD_SOCKET="6874"
export PDPRINTER="name-of-default-logical-destination"
export PATH=/usr/lpp/pd/bin:$PATH
```

8. Test the system:
  - a. Open a command line window.
  - b. Set the environment variables as directed in Step “Installing the InfoPrint Manager Macintosh client” on page 133, either manually or using a shell script.
  - c. Issue one of the chosen commands, followed by the **-h** flag to display the syntax of that command and verify the installation.

For example:

```
pdls -h
```
  - d. Arrange for all users of the Macintosh client to set the environment variables as directed in Step “Installing the InfoPrint Manager Macintosh client” on page 133, whenever they log in. You can use either of these methods:
    - Set the environment variables in the default shell configuration file, either individually or by invoking the shell script.
    - Tell each user to set the environment variables in his or her own shell configuration file, either individually or by invoking the shell script.

---

## Commands you can use from the InfoPrint Macintosh client

Information about security and how users can be authorized to InfoPrint Manager is found in the topic “Managing security for InfoPrint Manager for AIX” in the *InfoPrint Manager for AIX: Procedures* manual.

InfoPrint Manager lets authorized users (normally all users) use these InfoPrint commands:

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

**pdpr** Submits a job to a logical or actual destination

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

InfoPrint Manager lets authorized users (the job owner is usually authorized) use these InfoPrint commands:

**pdmod**

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

**pdrm** Deletes jobs

InfoPrint Manager allows only authorized users to use these InfoPrint commands:

**pdaccount**

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

**pdcreate**

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

**pdclean**

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

**pddelete**

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

**pddeviceop**

Perform device operation on device associated with specified actual destination.

**pddisable**

Prevents destinations from accepting jobs and logs from logging.

**pdenable**

Enables destinations to accept jobs and logs to log.

**pdpause**

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

**pdpromote**

Advances a job to the head of the queue.

**pdreorder**

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

**pdresubmit**

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

### **pdresume**

Enables paused objects to resume operation.

**pdset** Sets or changes the values of attributes describing InfoPrint objects.

### **pdshutdown**

Stops servers or actual destinations.

### **pdspace**

Backspaces or forward spaces a PSF physical printer.

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

---

## **Examples using the InfoPrint Manager Macintosh client**

The *InfoPrint Manager: Reference* and the command man pages show several examples of each command that you can issue from the InfoPrint Macintosh client. This section contains examples using the commands to perform some common tasks.

### **Filtering destinations**

To find a destination near you that can print two-sided PostScript jobs, enter:

```
pdls -c destination -f "destination-realization==actual
 && document-format-supported==postscript && sides-supported==2"
 -r "destination-location" *:
```

The **-f** flag specifies that you want to either filter on or list only actual destinations that support PostScript format and two-sided printing. The **-r** flag specifies that you want to request where the actual destinations reside. The asterisk means that you want to check every server. The blank after the colon means that you want to check every destination in every server. The backslash prevents the shell from interpreting the asterisk as a special character.

InfoPrint returns information similar to this:

```
caxton: destination-location = 3rd floor E
elzevir: destination-location =
morris: destination-location = 1st floor W
```

You decide to print your job on morris. To determine a logical destination that routes jobs to morris, enter:

```
pdls -c destination -f "destination-associated-destinations==morris" *:
```

### **Querying server status**

To query the status of the InfoPrint server, enter:

```
pdls -c server
```

### **Querying device status**

To query the status of all printers on the InfoPrint server whose hostname is pauper, enter:

```
pdls -c printer pauper
```

## Querying a print job

To submit the file `myjob` to the logical destination `london`, requesting two-sided printing on the actual destination `morris`, enter:

```
pdpr -d london -x "destination-name-requested=morris sides=2" myjob
```

## Submitting a print job

To submit the file `newjob` to the logical destination `boston`, requesting single-sided printing on the actual destination `printer1`, enter:

```
pdpr -d boston -x "destination-name-requested=printer1 sides=1" newjob
```

## Querying jobs

To list the jobs associated with logical destination `ld1` on the server `newyork`, showing detailed information (`-r verbose`) and not filtering for particular criteria, such as the job submitter (`-F`), enter:

```
pdq -p newyork:ld1 -r verbose -F
```

## Modifying the job name

To change the **job name** attribute of one of the jobs that was listed in “Querying jobs” on page 119, enter:

```
pdmod -x "job-name=NewJobName" newyork:job_ID
```

## Removing a job

To remove one of the jobs that was listed in “Querying jobs” on page 119, enter:

```
pdrn newyork:job_ID
```



---

## Chapter 18. Setting up hot folders to submit jobs

The simplest way to submit jobs to InfoPrint is to use a *hot folder*. A hot folder is a directory that is associated with a logical destination. When you copy or move a file to the hot folder, InfoPrint automatically submits that file as a job to that logical destination.

If you do not explicitly specify a hot folder directory, a logical destination will not have a hot folder (there is no default hot folder). If you explicitly specify a hot folder directory, the server will create it for you; however, the path up through and including the parent directory of the hot folder directory must already exist on your InfoPrint AIX server. For example, if you specify `/var/pd/hotfolder/lp-impos/` as your hot folder, you must have previously created the directory `/hotfolder` and its subdirectory `/lp-impos`.

**Note:** You should make a copy of any jobs that you will be placing in a hot folder. After you have put them in the folder, files are submitted and then deleted.

---

### Creating a hot folder

To create a hot folder:

1. Make sure that file sharing is available on the InfoPrint server system. Many file sharing methods are available, but IBM recommends the methods shown in Table 14.

Table 14. Recommended file sharing methods

| Server  | Client  | Method                                                       | See                                                         |
|---------|---------|--------------------------------------------------------------|-------------------------------------------------------------|
| AIX     | AIX     | Network File Sharing (NFS)                                   | <i>System Management Guide: Communications and Networks</i> |
| AIX     | Windows | AIX FastConnect for Windows <sup>1</sup>                     | <i>System Management Guide: Communications and Networks</i> |
| Windows | Windows | Server Message Block (SMB) (standard Windows folder sharing) | Windows help                                                |

#### Recommendation:

It is strongly recommended that you create your hot folder on the same system where the InfoPrint Manager server is installed. If you create the hot folder on a network resource, the polling traffic created by the InfoPrint Manager server process might cause performance degradation of the remote server, the InfoPrint Manager system, or the network connection in between.

2. Select a location on the InfoPrint server system for the hot folder. If all hot folders are subdirectories of the same directory, users can access them all with a single connection (through a **mount** command or some form of file sharing) to the parent directory.
3. If the hot folder does not exist, you can optionally create it. Be sure to give it the appropriate universal or group write permission.
  - If the hot folder already exists, or if you create it now, it will remain after you delete the associated logical destination.

- If it does not exist and you do not create it now, it will be created automatically in the next step and will be deleted when you delete the associated logical destination.
4. Set the **hot-folder-directory** attribute for the logical destination to the full path name of the hot folder as it is known on the server system.  
You can do this either when you create a logical destination or afterwards. See the InfoPrint Manager Administration GUI online help for instructions.

**Notes:**

1. A hot folder can be associated with only one logical destination; and a logical destination can be associated with only one hot folder.
2. InfoPrint Manager for AIX users who are using hot folder support for submitting jobs must use Fast Connect for POWER® Version 3.2 to connect to Windows systems. However, Fast Connect is not supported on Microsoft® Windows Vista or Microsoft Windows Server 2008. Use an SMB solution.
3. Just like any other InfoPrint job submission method, attribute values specified in a default document and in default job attributes for the logical destination are used for all jobs submitted through the hot folder, unless the job submitter overrides them.

---

## Accessing a hot folder

From a client system, you can access the hot folder in the same way as any shared directory. You do not have to install any InfoPrint client software. For more information, see the references in Table 14 on page 139.

**Note:** If multiple hot folders are subdirectories of the same directory, Windows users can map a single drive to the parent directory rather than mapping a drive for each hot folder.

---

## Submitting jobs through a hot folder

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

**Note:** If you experience problems with hot folders submitting incomplete jobs to the InfoPrint Manager server, use the method described in “Staging jobs” on page 141.

**Attention:** To save the file, copy it. Files are deleted from the hot folder after submission.

## Specifying job attributes

By default, jobs submitted through a hot folder use the attribute values in the default document and default job associated with the logical destination. To override these values:

1. Create an attributes file called *filename.att*, where *filename* is the same as the file name of the print file. For example, if the print file is *report.pdf*, the attributes file is *report.pdf.att*. In this file, specify the attributes and values that you want. For example, to print three single-sided copies of *report.pdf*, *report.pdf.att* looks like this:  

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



**Note:** This file is the same format as an attribute file specified with the **-X** flag on a **pdpr** print command. For information about job and document attributes, see *InfoPrint Manager: Reference*.

2. Copy or move the attributes file to the hot folder. The .att file extension tells InfoPrint not to print the attributes file. You must make sure that the attributes file is either copied or moved to the hot folder before you copy or move the print file to the hot folder.

**Note:** This step is optional because you can create the attributes file in the Hot Folder directory.

3. Copy or move the print file to the hot folder. InfoPrint looks for an attributes file with the same file name and submits the two files together.

By default, hot folder jobs are submitted with job notifications turned off. To get notifications on hot folder jobs, you must specify a **notification-profile** with an explicit **delivery-address** in the .att file.

## Staging jobs

You can stage jobs to InfoPrint by using this procedure:

1. Copy the file to the hot folder with the extension .stg. InfoPrint ignores files with this extension.
2. Rename the copy with the original extension when you want it to print.

## Submitting multiple-document jobs

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

1. Create a subdirectory in the hot folder called *jobname.stg*, where *jobname* is any name you choose. The .stg extension prevents InfoPrint from processing the directory.
2. Copy the documents you want to print into the subdirectory in the same order that you want to print them.

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

3. To override the default attributes, create an attributes file called *jobname.att*, where *jobname* is the same as the subdirectory name, and copy it into the hot folder.
4. Rename the subdirectory from *jobname.stg* to *jobname*. InfoPrint then submits all the files in the subdirectory as a single job.



---

## Chapter 19. Using the LPD Gateway with InfoPrint Manager for AIX

You can use the AIX line printer daemon (LPD) to submit jobs through the LPD Gateway to an InfoPrint AIX server. LPD is a subsystem that lets you submit print jobs from other operating systems using a Line Printer (LPR) client. The AIX LPD submits the files it receives directly to an InfoPrint destination and supports the **-o** options that are available with some UNIX LPR clients. InfoPrint Manager for AIX provides the **lprafp** command as its LPR client, which does support the **-o** options and can be compiled on any UNIX system. (**-o** options allow you to specify advanced InfoPrint print options, such as form definitions and page definitions.) For more information about using **-o** options with AIX print commands, see *InfoPrint Manager: Reference*.

This topic describes the different LPR clients that you can use to send print jobs to InfoPrint Manager for AIX:

- “Submitting Print Jobs through the LPD from a non-AIX UNIX System”
- “Submitting Print Jobs through the LPD from a non-UNIX System”

---

### Submitting Print Jobs through the LPD from a non-AIX UNIX System

You can use any LPR client, but 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 InfoPrint LPR client called **lprafp** is provided with InfoPrint Manager for AIX and is available from the **/usr/lpp/psf/utills/lpr** directory. This directory contains sample code of the **lprafp** client for UNIX platforms. This code must be compiled as described in the **README** file that is located in the **/usr/lpp/psf/utills/lpr** directory.

Be sure to specify the LPD subsystem in the **/etc/inittab** file to make sure that the client starts on a system reboot and is always available.

### Submitting print jobs from a non-AIX UNIX System with the InfoPrint (lprafp) LPR Client

When you submit print jobs from the InfoPrint LPR client on a non-AIX UNIX system, all you need to specify is the InfoPrint Manager server and the name of an InfoPrint destination (either logical or actual). The LPD submits the job to the InfoPrint print spool. If you enter the LPR shell script with the **-A** flag, it invokes the **lprafp** command program (**lprafp.c**), which is documented in the *InfoPrint Manager: Reference*. If you enter the LPR shell script without the **-A** flag, it invokes the AIX system’s LP command, which does not support the InfoPrint **-o** options.

### Submitting Print Jobs through the LPD from a non-UNIX System

To submit jobs from a VM, z/OS, or AS/400® system through the LPD Gateway to an InfoPrint AIX server, you can use any LPR client, but cannot specify advanced InfoPrint options on the **-o** flag. If submitting jobs from an MVS or z/OS

system, you might want to consider purchasing MVS Download as an alternative that lets you specify a richer set of InfoPrint print options.

---

## Chapter 20. Using the IPP Gateway with InfoPrint Manager for AIX

InfoPrint Manager for AIX now includes an Internet Printing Protocol (IPP)<sup>1</sup> gateway. The IPP gateway lets 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 **startippgw** utility or SMIT (**InfoPrint Printing Systems** → **InfoPrint Utilities** → **IPP Gateway Daemon**) to enable the IPP gateway.

**Note:** For information about the **startippgw**, **stopippgw**, and **lsippgw** daemon utilities available to use with the IPP Gateway on AIX, see the *InfoPrint Manager: Reference*

An **Internet Printing Protocol (IPP) gateway printer** is a printer that you create on a client workstation using IPP client software. 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.

---

### Printing through the IPP Gateway

The IPP gateway is a daemon in InfoPrint Manager that lets you print using IPP even if you don't have an IPP-enabled printer, as long as you (and your users) have IPP client software installed on your workstation.

1. Start the IPP Gateway using the **startippgw** daemon utility or SMIT (**InfoPrint Printing Systems** → **InfoPrint Utilities** → **IPP Gateway Daemon**).
2. Verify that the gateway is working. Open your Internet browser and enter the following web address, replacing *serverhostname* with the DNS hostname of the system where the IPP gateway daemon is running: `http://serverhostname:631/printers`

where 631 is the default port. If you are using a different port, specify the number of the port you are using. If the gateway is working correctly, you will see a list of the printers that are available through the gateway. All of your InfoPrint destinations should be listed. Find the address (URI) of the destination you want your users to print to.

If you don't have a DNS name server running on your network, replace *serverhostname* with the dotted-decimal IP address of the system where the IPP gateway daemon is running.

If your InfoPrint Manager environment has two InfoPrint Manager systems in different name spaces on the same machine, you need to start an IPP gateway daemon for each InfoPrint Manager system.

3. Provide your end users the IPP client software to install on their workstations or laptops and give them the address (the URI from step 1) of the printer they

---

1. The Internet Printing Protocol (IPP) is an application protocol that uses the Hypertext Transfer Protocol (HTTP) to allow you to print your documents to any IPP-enabled printer whose web address (or Uniform Resource Identifier-URI) you know. You can use IPP to send print data over both LANs and the Internet, so users who are directly connected to your LAN, as well as those who work remotely, have access to the same printers.

should use. When the end users have completed the installation of the IPP client software, they can print to the printer just as they would print to any other printer.

Windows systems come with IPP client software built in. Users on other Windows platforms can download IPP client software. 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 the appropriate client at <http://www.pwg.org/ipp/IPP-Products.html>.

---

## Chapter 21. Installing and configuring the AFP driver

The InfoPrint AFP Driver software lets you 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 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: Common Clients* CD-ROM, LCD4-5642. You can also download English and other language versions of the AFP driver from the InfoPrint Solutions Company web site at <http://www.printers.ibm.com/R5PSC.NSF/Web/afpdr>. Translated drivers might not be identical to the English version because they are updated on a different schedule.

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

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

---

### Installing the AFP driver files

1. Insert the *InfoPrint Manager: Common Clients* CD-ROM, LCD4-5642, that came with your InfoPrint Manager package into your CD-ROM drive. The install program will start automatically.
2. Click **Install InfoPrint Products**, and then click the **AFP Print Driver** button.
3. Select the appropriate operating system.
4. The License Agreement displays. Click **Accept**, then click **Next**.
5. Follow the instructions to unpack the files into the desired directory. We recommend that you place the driver files in an easy to find directory, such as `c:\afpdriver`.

---

### Configuring the AFP driver

Once the files have been installed, you must complete the process of configuring the AFP driver by creating a printer that uses the driver. If you are installing the driver on a client workstation that has InfoPrint Select installed on it, see the InfoPrint Select readme file for instructions on creating a Select printer that uses this driver. If you are installing this driver on the system that your InfoPrint Manager server is installed on, follow the appropriate procedure below.

**Notes:**

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

## Setting up the InfoPrint AFP Driver on a Windows 2000 and 2003 system

1. Click the Windows **Start** button and select **Settings** → **Printers**.
2. In the Printers window, double-click **Add printer** 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 *mm***, where *mm* 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 click **Yes** to finish installing the driver.

## Setting up the InfoPrint AFP Driver on a Windows XP system

1. Click the Windows **Start** button and select **Printers and Faxes**.
2. In the Printers window, click **Add a printer** 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 *mm***, where *mm* 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 has not passed Windows Logo testing, simply click **Continue Anyway** to finish installing the driver.



---

## Chapter 22. First Failure Data Capture (FFDC)

First Failure Data Capture (FFDC) provides an automated snapshot of the system environment when an unexpected internal error occurs in an InfoPrint Manager server or actual destination. This snapshot is used by InfoPrint support personnel to provide a better understanding of the state of the system and InfoPrint Manager when the problem occurred.

The First Failure Data Capture system is not activated when InfoPrint Manager is installed. It can be activated and configured through a SMIT panel. FFDC produces information similar to the InfoPrint Manager pdcapture function.

---

### Configuring First Failure Data Capture (FFDC)

Follow this procedure to configure FFDC:

1. Log into the AIX system as **root**.
2. Enter this from the command line:  
`smit pd_psf_ffdc`
3. Specify an existing directory for **PATH Used for Capture File**. This is the directory that the FFDC system uses for storing up to two pdcaptures (depending on available space). Since a single pdcapture averages approximately 8 megabytes, the directory that is specified in this field should have at least 8-10 megabytes of free space available. After two captures are performed, the oldest of the two captures is overwritten by newer captures, so 16-20 megabytes of free space is recommended. The default directory path is **\$PDBASE/debug**. Usually this will be **/var/pd/debug**, but the value of **\$PDBASE** can be determined by typing **echo \$PDBASE** on the AIX command line.
4. Specify a valid E-mail address for the **Notification Email Address**. When the FFDC system detects a failure in an InfoPrint server or actual destination, an E-mail message is sent to this address notifying the recipient of the failure and the name of the server (or associated server) involved.
5. To enable the FFDC system, set the **Data Capture** field to **on**. To disable the FFDC system, set the **Data Capture** field to **off**.
6. Click **OK** and then click **OK** in the **ARE YOU SURE?** dialog box.
7. When the running person icon stops running and signals that everything is OK, click **Done**.
8. Click **Cancel** to exit the original FFDC configuration screen.



---

## **Part 4. Appendixes**



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## Appendix A. Using the InfoPrint SMIT production print interface

You can perform most InfoPrint operations tasks and some InfoPrint administrative tasks by using the InfoPrint SMIT operator's interface.

This appendix provides information about customizing, starting, and accessing help for the InfoPrint SMIT production print interface. It also includes a brief description of the tasks you can perform through the interface.

This appendix includes these topics:

- "Tasks you can perform using the InfoPrint SMIT production print interface"
- "Customizing the InfoPrint SMIT production print interface" on page 154
- "Starting the InfoPrint SMIT production print interface" on page 156

---

### Tasks you can perform using the InfoPrint SMIT production print interface

This is a brief description of the tasks you can perform using the InfoPrint SMIT production print interface. Use the online help for more detailed information. You can perform tasks in four major areas: monitoring print system status, controlling jobs, controlling queues, and controlling actual destinations.

#### Monitoring print system status

The InfoPrint SMIT production print interface menu selections for system status allow you to perform these tasks:

- List pending, processing, and printing jobs for the queue you are monitoring
- List retained jobs in the queue
- Show the status of the queue
- Show the status of the actual destination or destinations that receive jobs

You can customize the job, queue, and actual destination information that you receive by editing the environment file for the InfoPrint SMIT production print interface.

#### Controlling jobs

The InfoPrint SMIT production print interface menu selections for controlling jobs allow you to perform the these tasks:

- Pause and resume jobs
- Hold and release jobs
- Cancel active and retained jobs
- Assign **job-batch** values to jobs
- Change the priority of jobs
- Assign jobs to specific actual destinations
- Specify the forms that jobs require
- View the status of jobs

- View summaries of jobs that require specified forms or that belong to specified job batches

## Controlling queues

The InfoPrint SMIT production print interface menu selections for controlling queues allow you to perform these tasks:

- Pause and resume queues. Paused queues continue to receive jobs, but InfoPrint does not schedule the jobs to actual destinations.
- Change the queue you are monitoring. You use the queue information file to control the queues that you can switch to, as well as the actual and logical destinations that are associated with the queue.

## Controlling actual destinations

The InfoPrint SMIT production print interface menu selections for controlling actual destinations allow you to perform these tasks:

- Pause and resume actual destinations. Paused actual destinations still accept jobs from their queues, but they do not process and print the jobs.
- Disable and enable actual destinations. Disabled actual destinations process jobs already assigned to them but do not accept new jobs from their associated queues.
- Backspace and forward space actual destinations. You can cause InfoPrint to back up or skip forward a specified number of pages in the job currently printing on a specific actual destination.
- Specify the forms that are currently loaded in the printer device. You can specify the type of form that is loaded in each input tray of the printer.
- Specify **job-batches-ready** values for actual destinations. You can set up actual destinations so that they will process jobs that request a specific **job-batch** value.
- Shut down an actual destination so that it no longer processes jobs. You can specify how you want to shut down the actual destination with regards to how the shutdown process saves checkpoint information about the current job.

---

## Customizing the InfoPrint SMIT production print interface

Before using the InfoPrint SMIT production print interface, you specify which InfoPrint components and attributes you want to monitor by setting environment variables in one or more environment files. Initially, you can use the default environment file that is supplied with InfoPrint. During installation, InfoPrint adds information about the environment file in the **/etc/environment** file to provide system-wide defaults.

## Customizing the default InfoPrint SMIT production print interface environment file

The default InfoPrint SMIT production print interface environment file is **ppo.env**, which InfoPrint stores in the **/usr/lpp/pd/bin** directory during installation. The **ppo.env** file contains a series of export statements for environment variables that specify information about your InfoPrint system. InfoPrint bases the setting of some environment-variable values on objects that are created during installation. Other environment variables have no values; you can update them as you expand your InfoPrint system. Figure 5 on page 155 shows the default environment file.

```

Set up the PPO environment variables
if ["$PPO_BIN" = ""] ; then
 export PPO_BIN=/usr/lpp/pd/bin"
fi
if ["$PPO_QUEUE_INFO_FILE" = ""] ; then
 export PPO_QUEUE_INFO_FILE="$PPO_BIN/queue_info"
fi
export PPO_JOB_DETAILS_ATTRS="\
job-identifier,\
job-name,\
current-job-state,\
job-state-reasons,\
required-resources-not-ready\
intervening-jobs,\
job-priority,\
actual-destination-requested,\
destinations-assigned,\
submission-time,\
started-printing-time,\
pages-completed,\
default-medium"
export PPO_QUEUE_ATTRS="queue-name,queue-state,\
actual-destinations-ready,actual-destinations-assigned"
export PPO_PP_ATTRS="destination-name,destination-state,enabled,\
assoc-queue,problem-message,media-ready,job-batches-ready"
export PPO_FORM=""
export PPO_RETENTION="48:00"
export PPO_SERVER=`hostname`
export PPO_LP=LP-NAME
export PPO_LPS="LP-NAME"
export PPO_QUEUE=Q-NAME
export PPO_PPS="PP-NAME"
export PPO_JOB_BATCH=""
export PPO_CANCEL_ALL_OPTION="1"

```

Figure 5. Default environment file — InfoPrint SMIT production print interface

You can make copies of the default InfoPrint SMIT production print interface environment file and customize the copies to match your InfoPrint system. You should create an environment file for each queue you have. See *InfoPrint Manager: Reference* for a table of environment variables that affect the InfoPrint SMIT production print interface. Then use an AIX editor to make changes to the environment file.

## Customizing the queue information file

While you are using the InfoPrint SMIT production print interface, you can change the queue you are monitoring if you previously set up a queue information file. A queue information file maps queue names to their corresponding environment files. Figure 6 shows the contents of the default queue information file, `/usr/lpp/pd/bin/queue_info`.

```

queue_name_1 pathname-of-the-corresponding-ppo.env-file
queue_name_2 pathname-of-the-corresponding-ppo.env-file

```

Figure 6. Queue information file—InfoPrint SMIT production print interface

To set up and use a queue information file, complete these steps:

1. Create an environment file for each queue that you want to monitor through the InfoPrint SMIT production print interface. Specify the appropriate values for the environment variables. Store the environment files in either the directory represented by the **PDBASE** environment variable or the directory represented by the **PDNAMESP** environment variable. If operators on different AIX systems will share the files, store them in the directory represented by the **PDNAMESP** environment variable. For more information, see “Customizing the default InfoPrint SMIT production print interface environment file” on page 154.
2. Update the **queue\_info** file in the **/usr/lpp/pd/bin** directory. For example, you have two queues, **ksrv-q1** and **ksrv-q2**. Their respective environment files are **q1.env** and **q2.env**, located in the **/usr/lpp/pd/bin** directory. Update the **queue\_info** file with these entries:  

```
ksrv-q1 /usr/lpp/pd/bin/q1.env
ksrv-q2 /usr/lpp/pd/bin/q2.env
```

**Notes:**

1. You must include the full path for each environment file you specify.
2. If you create a queue information file with a different name or store it in a different directory, make sure that the **PPO\_QUEUE\_INFO\_FILE** environment variable in all of your environment files specifies the correct directory and file name.
3. To use the queue information file, you must start the InfoPrint SMIT production print interface with the **startppo** command. For more information, see “Starting the InfoPrint SMIT production print interface.”

## Specifying your default environment file

The **PPO\_ENV\_FILE** environment variable controls the environment file that the InfoPrint SMIT production print interface uses when you start the interface. During installation, this line was added to the **/etc/environment** file:

```
PPO_ENV_FILE=/usr/lpp/pd/bin/ppo.env
```

This statement defines the environment file that is shipped with InfoPrint as the default. To use a different environment file, update the statement in the **/etc/environment** file.

For example, if you have a customized environment file that is called **master.env** located in the **/var/pd** directory, use this export statement:

```
PPO_ENV_FILE=/var/pd/master.env
```

---

## Starting the InfoPrint SMIT production print interface

There are two methods of starting the InfoPrint SMIT production print interface:

- If you are at an AIX command prompt, enter one of these commands:
  - To access the Production Print Operations panel in the AIXwindows mode, enter:  

```
startppo
```
  - To access the Production Print Operations panel in the ASCII mode, enter:  

```
startppo -t
```

All InfoPrint SMIT production print interface SMIT panels display in ASCII mode; however, status windows display as graphical motif windows.



- If you are using the InfoPrint SMIT production print interface, follow these steps:
  1. Return to the main panel titled InfoPrint Production Printing System.
  2. Click **Production Print Operations**.

**Notes:**

1. You cannot change queues as specified by the queue information file if you access the InfoPrint SMIT production print interface through a SMIT session that was not started with the **startppo** command.
2. The **startppo** command also has a **-g** flag that you can use to control the initial size and position of the InfoPrint SMIT production print interface window. Specify the value for the flag in the form:

`width×height+xoffset+yoffset`

For example, if you enter `startppo -g 800×500+100+200`, the window that opens is 800 pels wide, 500 pels high, offset 100 pels from the left edge of the terminal display, and down 200 pels from the top of the display.

3. You cannot start the ASCII mode of the InfoPrint SMIT production print interface in the background. For example, do not use this command:  
`startppo -t &`

## Accessing the online help for the InfoPrint SMIT production print interface

The online help for the InfoPrint SMIT production print interface provides descriptions of panel controls, such as buttons, entry fields, and lists. You can access the help information by using standard AIX SMIT help actions. If you are not familiar with using SMIT help, you can use the **Help** pull-down menu at the upper right corner of any AIXwindows SMIT panel. If you are using SMIT in the ASCII mode, access the main System Management panel. Highlight the panel title and press **F1** to access help on using SMIT.

### Requesting help for menu selections on a SMIT panel

The method of accessing help for a SMIT panel depends on whether you are in AIXwindows mode or ASCII mode.

#### AIXwindows mode

Complete these steps to receive contextual help on a menu selection:

1. Press **Ctrl + F1**. All the menu selections on the panel are highlighted. The mouse pointer changes to a question mark. A **Help Message** window opens with instructions on how to access help.
2. Click any highlighted menu selection on the panel. An Information Message window opens.
3. Click the **OK** button on the Information Message window after you have read the information. All menu selections on the panel remain highlighted.
4. To view the help for another item, select it.
5. When you have completed viewing the information, click the **Cancel** button on the Help Message window to remove the highlighting and return to normal SMIT operations.

**Note:** You can also manually highlight a menu selection by using the **Tab** and arrow keys to navigate to the selection. Pressing **F1** for a highlighted menu item opens the help window for that item.

### **ASCII mode**

Complete these steps to receive contextual help on a menu selection:

1. Use the arrow keys to highlight a menu selection.
2. Press **F1**. A Contextual Help window opens.
3. When you have completed viewing the help information, press the **Enter** key. The window closes.

Complete the same steps to view the help for any other menu selections.

## **Requesting help for fields and buttons on a SMIT window**

The method of accessing help for fields and buttons on a SMIT window depends on whether you are in AIXwindows mode or ASCII mode.

### **AIXwindows mode**

Complete these steps to receive help for fields and buttons on a SMIT window that was accessed from a SMIT panel:

1. Click the button labeled with a question mark at the bottom right of the window. A Help window displays beneath the SMIT window.
2. Move the mouse pointer over the fields and buttons in the window. The text in the Help window changes, displaying help for the field under the mouse pointer.
3. When you have completed viewing all of the information, click the **OK** button on the Help window to close it and return to normal SMIT operations.

### **ASCII mode**

Complete these steps to receive help for fields on a SMIT panel in which you can enter or list information:

1. Use the arrow keys to highlight a field name.
2. Press **F1**. A Contextual Help window opens.
3. When you have completed viewing the help information, press the **Enter** key. The window closes.

Complete the same steps to view the help for any other field selections.

## **Requesting help for SMIT status windows**

The InfoPrint SMIT production print interface displays separate status windows that show the results of queries you make. The status windows also provide help for the tasks you can perform from them. The status windows are the same for both AIXwindows mode and ASCII mode.

Complete these steps to receive help for menu selections on SMIT status windows:

1. Click the **Help** menu at the far right of the menu bar for the status window. A pull-down menu displays with one entry for each of the tasks you can perform from the window.
2. Select an item from the list. A Help window displays providing instructions on performing the task.

---

## Appendix B. Accessibility

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, use software products successfully. The major accessibility features in the InfoPrint Manager for AIX let users:

- Use assistive technologies such as screen-readers and screen magnifier software.
- Operate specific or equivalent features using only the keyboard.
- Customize display attributes such as color, contrast, and font size.

---

### Using assistive technologies

Assistive technology products, such as screen-readers, function with the user interfaces found in the InfoPrint Manager for AIX. Consult the assistive technology documentation for specific information when using it to access the InfoPrint Manager for Windows.

---

### Keyboard navigation of the user interface

The InfoPrint Manager for AIX user interface complies with the accessibility guidelines for HTML. You can use keyboard shortcuts or function keys (PF keys) to access the InfoPrint Manager for AIX user interface. For example, Alt+Shift+F2 lets you skip to the main content. See your browser documentation for keyboard shortcuts and default settings for the PF keys and for explanations about how to modify their functions.



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# Glossary

This glossary defines technical terms and abbreviations used in InfoPrint Manager.

## Special Characters

### .Guidefaults file

A file created by InfoPrint in the home directory of a person using the InfoPrint GUI. InfoPrint uses this file to save and reference information about the servers you are monitoring and the windows you are working in.

## A

### Access Control List (ACL)

In computer security, a collection of all access rights for one object.

**ACL** Access Control List.

### acl editor

A command line interface that lets you view, add, update, and delete access authorization records in an ACL.

**action** In the InfoPrint GUI, an icon that represents an operation that you can perform on an InfoPrint object. You drag and drop the action onto an object to initiate the operation for that object. For example, using the **Enable** action to enable a disabled actual destination.

### actual destination

In InfoPrint, an object that represents the output device that performs the printing or transmission function. See *email destination*, *fax destination*; see also *physical printer*, *printer device*; contrast with *logical destination*.

### additive color system

A system that reproduces an image by mixing (adding) appropriate quantities of red, green, and blue light (the additive primary colors) to create all other colors of light, either direct or transmitted. When the additive primaries are superimposed on one another, they create white light. Contrast with *subtractive color system*.

### administrator

In InfoPrint, the person who creates and manages one or more components of a

printing system, such as servers and actual destinations. By default, InfoPrint gives administrators authorization to perform some InfoPrint operations and to access certain information that is not available to the operators or job submitters.

### Adobe® Acrobat

An Adobe software program that provides instant access to documents in their original format, independent of computer platform. With the Adobe Reader, you can view, navigate, print, and present any Portable Document Format (.pdf) file.

### Adobe PageMaker

A desktop publishing program that produces PostScript documents.

### Adobe PostScript Raster to Image Transform (RIP)

See *raster image processor (RIP)*.

### ADSM/6000

Advanced Distributed Storage Manager.

### Advanced Distributed Storage Manager (ADSM/6000)

A program that provides storage management for archived files.

### Advanced Function Common Control Unit (AFCCU™)

An IBM RISC-based control unit with code common to all printers that use the AFCCU.

### Advanced Function Presentation (AFP)

A set of licensed programs, together with user applications, that use the all-points-addressable concept to print data on a wide variety of printers or to display data on a wide variety of display devices. AFP includes creating, formatting, archiving, retrieving, viewing, distributing, and printing information.

### Advanced Function Presentation data stream (AFP data stream)

The printer data stream used for printing AFP data. The AFP data stream includes composed text, page segments, electronic

overlays, form definitions, and fonts downloaded from the operating system to the printer.

A presentation data stream that is processed in AFP environments. The AFP data stream includes MO:DCA-P-based data streams.

**Advanced Interactive Executive (AIX)**

An operating system used with RS/6000 computers. The AIX operating system is IBM's implementation of the UNIX operating system.

**AFCCU**

Advanced Function Common Control Unit.

**AFP** Advanced Function Presentation.

**AFP data stream**

Advanced Function Presentation data stream.

**ainbe** The printer input/output backend program used by the PSF DSS to send jobs to printer devices. Depending on the incoming data stream of the job, the PSF DSS might have transformed the data stream of the job before the backend program sending it to the printer device.

**AIX** Advanced Interactive Executive.

**AIX-attached printer**

A printer device, attached to an RS/6000 computer through the network or through a serial or parallel port that receives jobs from an AIX print queue.

In InfoPrint, a PSF physical printer that represents an AIX-attached printer device. See also *direct-attached printer*, *TCP/IP-attached printer*, *upload-TCP/IP-attached printer*.

**AIX destination support system**

In InfoPrint, the destination support system that communicates with the standard AIX print backend (**piobe**), or with certain variations of the **rembak** print backend, to print jobs.

**AIX physical printer**

In InfoPrint, the object representing a printer device that uses the AIX destination support system.

**aliasing**

In a digitized image, the creation of diagonal lines by combining short

horizontal and vertical line segments that approximate the path of the desired line.

**all-points-addressability (APA)**

The capability to address, reference, and position text, overlays, and images at any defined point of the printable area of the paper or display medium.

**alphameric**

Synonym for *alphanumeric*.

**alphanumeric**

Pertaining to a character set containing letters, digits, and other symbols such as punctuation marks. Synonymous with *alphameric*.

**AMPV**

Average monthly print volume.

**analog**

Pertaining to a continuous variable sampling of information between two points that achieves an even, smooth transition of photographic material.

**analog color proof**

An off-press color proof made from separation films.

**anti-aliasing**

The rendering of hard-edged objects so that they blend smoothly into the background. PhotoShop offers anti-aliasing when rasterizing an EPS file.

Removing the jagged "stairstep" quality in diagonal lines produced on a computer screen by aliasing. This removal is effected by creating less densely shaded fields parallel to the diagonal line.

**APA** All-points-addressability.

**API** Application Program Interface.

**Application Program Interface (API)**

The call interface between a client program and the procedures that implement the printing system, as defined by the specification. Clients use the API to access servers. (P)

**architecture**

The set of rules and conventions that govern the creation and control of data types such as text, image, graphics, font, fax, color, audio, bar code, and multimedia.

**archiving**

The transfer of digital information from an online system onto floppy disk, compact disc, or other media for offline storage. The original copy is deleted from the online system. See also *retrieval*.

**array inkjet**

An ordered collection of multiple print heads used in an inkjet printer.

**ASCII** American National Standard Code for Information Exchange. The standard code, using a coded character set consisting of 7-bit coded characters (8 bits including a parity check). The ASCII code is used for information exchange among data processing systems, data communications systems, and associated equipment. The ASCII character set includes control characters and graphic characters.

**asynchronous**

Pertaining to two or more processes that do not depend upon the occurrence of specific events, such as common timing signals. (T)

In InfoPrint, occurring without a regular or predictable time relationship to a specified action. Contrast with *synchronous*.

**attachment type**

Defines the method by which a printer device is attached to the AIX system from which it receives data. See *AIX-attached printer*, *direct-attached printer*, *TCP/IP-attached printer*, and *upload-TCP/IP-attached printer*.

**attribute**

A defined characteristic of an object, such as the number of copies required of a job, or the document formats accepted by an actual destination.

**attribute name**

A string that identifies an attribute. Typically, in InfoPrint attribute names consist of two or more words separated by hyphens.

**attribute value**

The element of an attribute that specifies the characteristics relating to the attribute.

**authorization**

In computer security, verification of the eligibility of a user to access an object.

**authorized user**

A person with the appropriate permissions to access an object or to issue a command.

**automatic recovery**

A function of printer logic that permits the printer to reprint a job if the job is misprinted or damaged or if a component has failed.

**auxiliary sheet**

In InfoPrint, an object that represents a particular sheet of paper, blank or otherwise, that can precede a job, separate documents in a job, or follow a job.

**auxiliary-sheet selections**

A particular combination of start, separator, and end sheets that print with jobs on a particular printer device.

**B****backend**

In AIX, the program that is invoked by the **qdaemon** process to run a print or batch job. Synonymous with *backend program*.

**backend program**

Synonym for *backend*.

**backlog**

In InfoPrint, the amount of time calculated by InfoPrint that is required to print all of the jobs currently in a queue.

**backspace**

In InfoPrint, the action used to back up and reprint pages in a job.

**bar code**

A code representing characters by sets of parallel bars of varying thickness and separation that are read optically by transverse scanning.

An array of parallel rectangular bars and spaces that together represent data elements or characters in a particular symbology. The bars and spaces are arranged in a predetermined pattern following unambiguous rules defined by the symbology.

**BCOCA™**

Bar Code Object Content Architecture™.

**Bezier curves**

A method of defining curves using anchor

points, control handles, and tangent lines. The PostScript path passes through anchor points. Its approach direction is along the tangent lines that are controlled by the control handles. Many personal computer programs use this drawing method. Type 1 PostScript fonts are defined using Bezier curves.

### **binding**

The cover and materials that hold a book together. See *edition binding*, *perfect binding*, *spiral binding*, *wire-o binding*.

The process of applying the binding to a book.

In InfoPrint, assigning a job to an actual destination. See *early binding*, *late binding*.

### **bitmapped**

Pertaining to an image formed by a rectangular grid of pixels. Each pixel is assigned a value to denote its color. One-bit images are black and white; 8-bit images have 256 colors (or grays); 24-bit images have full color. CMYK images have 32-bits per pixel to encode 256 levels in each of four channels. Bitmapped images are also called raster images.

**bleed** An extra amount of printed image that extends beyond the trim edge of the sheet. Bleed ensures that no white gap appears at the edge of the sheet.

**boot** To prepare a computer for operating by loading an operating system.

**BSD** Berkeley Software Distribution.

### **BSD destination support system**

In InfoPrint, the destination support system that generates a print command string that the shell runs to print jobs.

### **BSD physical printer**

In InfoPrint, the object representing a printer device that uses the BSD destination support system.

**burn** In platemaking, an exposure. Burn is named because of the extremely bright ultraviolet lamps used to transfer images from film to plate.

In photography, to lengthen the final exposure time to increase the final density of print.

## **C**

### **cathode ray tube (CRT)**

A vacuum tube in which a beam of electrons can be moved to draw lines or form characters or symbols on its luminescent (phosphor-coated) screen. CRTs are the heart of all modern computer display screens. Black and white displays have only one phosphor scanned by one electron beam, while color displays have RGB phosphors scanned by three beams.

**CDE** Common Desktop Environment.

**child** See *parent/child relationship*.

**choke** In color printing, an area whose dimensions have been reduced to avoid overlapping another color. Contrast with *spread*.

**class** Synonym for *object class*.

**clean** In InfoPrint, an action used to remove all the jobs from specified servers, actual destinations, or queues, or to remove all the jobs submitted to specified logical destinations.

**CLI** Command Line Interface.

**client** In InfoPrint, the component of the print system that assembles a print request and submits the request to a server. The client generates the local ID numbers for each job, submits the jobs to the servers, and keeps track of where each user's jobs have been submitted.

**CMR** Color Management Resource.

**CMY** Cyan, magenta, yellow.

**CMYK**  
Cyan, magenta, yellow, black.

### **collator**

In some printers a special-purpose hard drive disk array used to store RIPped files and later transfer them to the LED print heads for imaging.

### **color balance**

The relative levels of cyan, magenta, and yellow channels in an image to produce accurate color rendition of an original image.

### **color correction**

The adjustment of the color balance in an image to produce accurate color rendition

of an original image. Color correction is used for two- or three-spot-color jobs.

**color key**

A color proof similar to Cromalin, but typically not laminated and not necessarily accurate in color. Color keys are used to verify that breaks or color assignments and traps have been made accurately.

**Color management resource**

Color management resource (CMR) is an architected resource that is used to carry all of the color management information required to render a print file, document, group of pages or sheets, page, or data object with color fidelity.

**Command Line Interface (CLI)**

A type of user interface where commands are specified on the command line. Contrast with *Graphical User Interface*.

**Common Desktop Environment (CDE)**

A graphical user interface running on a UNIX operating system.

**complex attribute**

In InfoPrint, an attribute that can have multiple values with each value containing multiple components.

**constant data**

Data that does not change between copies of a document and that is merged with variable data to produce personalized documents. For example, a form letter (constant data) can be merged with a customer's name and address (variable data).

**contextual help**

A type of online help that provides specific information about each selectable object, menu choice, notebook tab, field, control, and pushbutton in a window.

**control strip**

A strip of information that can be attached to a print job and used to measure registration and density.

**Cromalin**

The Dupont color proofing system. Four layers (CMYK) of light-sensitive material are exposed through final halftone negative films, then laminated together on an opaque backing to produce a color- and trap-accurate final proof showing

actual halftone dot structure. Cromalin is sometimes called an analog proof.

**crop**

To remove unwanted areas of an image, usually indicated by crop marks on the original.

**CRT**

Cathode ray tube.

**CTS**

Cutter-trimmer-stacker.

**cutter-trimmer-stacker (CTS)**

A post-processing device attached to a printer device and used for paper handling.

**cyan, magenta, yellow (CMY)**

The subtractive primary colors.

**cyan, magenta, yellow, black (CMYK)**

The four basic colors used in offset printing, as opposed to the three basic colors of light: red, green, and blue. Magenta, yellow, and cyan are the subtractive primaries. Black is added to provide better density and to produce a true black.

**D**

**daemon**

A program that runs unattended to perform a standard service. Some daemons are triggered automatically to perform their tasks; others operate periodically. Daemon processes generally provide a service that must be available at all times to more than one task or user, such as sending data to a printer.

**DAT**

Digital audio tape.

**data stream**

All information (data and control commands) sent over a data link.

A continuous stream of data that has a defined format.

In InfoPrint, pertaining to the incoming format of the job and the output format required by the printer device. InfoPrint transforms the incoming format into the output format, as required. See also *document format*.

**DB2\*/6000**

DataBase 2/6000.

**deadline**

In InfoPrint, a queuing technique where the next job assigned to the first position

in the queue is the one whose deadline is closest. Contrast with *FIFO* (*first-in-first-out*), *job-priority*, *longest-job-first*, and *shortest-job-first*.

**default document**

In InfoPrint, an object that represents default attribute values for a document in a job. Synonymous with *initial value document*.

**default job**

In InfoPrint, an object that represents default attribute values for a job. Synonymous with *initial value job*.

**default object**

In InfoPrint, a general term that refers either to a *default document* or a *default job*. Synonymous with *initial value object*.

**default value**

A value stored in the system that is used when no other value is specified.

**delete** In InfoPrint, an action used to delete default objects, jobs, logical destinations, actual destinations, or queues from the server.

**desktop publishing**

Performing print-related activities on a personal computer, including but not limited to layout, design, photo manipulation, creating fonts, editing text, color separation, scanning, and animation.

**destination**

See *actual destination*, *logical destination*.

**destination support system (DSS)**

In InfoPrint, the programs that an actual destination uses to communicate with the output device. Synonymous with *device support system*. See *AIX destination support system*, *BSD destination support system*, *email destination support system*, *Generalized Fax destination support system*, and *PSF destination support system*.

**device** An individual piece of equipment (hardware) that attaches to a computer, such as a printer device.

**device address**

The identification of an input or output device by its channel and unit number.

**device driver**

A file that communicates with a specific device such as a printer, disk drive, or

display. An application that sends output to a device controls the actions of the device through the device driver. See *printer driver*.

**device support system (DSS)**

Synonym for *destination support system*.

**DFS™** Distributed File Service.

**digital** Pertaining to data represented by digits, sometimes with special characters and the space character.

**digital audio tape (DAT)**

A high-capacity, low-cost bulk storage system used for archiving, copying (for backup purposes), and transferring large files. Typical DAT units store 1.3 GB on inexpensive cassette tapes.

**digital color proof**

An off-press color proof made from a color printer attached to a computer.

**digital printing**

A filmless and plateless printing process in which digital data for each page is transferred directly to a light-sensitive drum and then to paper for a final image.

**direct-attached printer**

A printer device, attached to an RS/6000 computer through the network or through a serial or parallel port.

In InfoPrint, a PSF physical printer that represents a direct-attached printer device. See also *AIX-attached printer*, *TCP/IP-attached printer*, and *upload-TCP/IP-attached printer*.

**disable**

In InfoPrint, an action used to stop the acceptance of jobs on destinations, queues, or servers, or to stop writing information to logs.

**distributed print system**

A computer system with the ability to interchange print data and controls among different computing environments with the intent of printing the data on a different system from the one where the print request was generated. For example, in host-to-LAN distributed printing, data that is located on the host is printed on printers attached to a local area network.

**dithering**

A technique of filling the gap between

two pixels with another pixel having an average value of the two to minimize the difference or to add detail to smooth the result.

**document**

In InfoPrint, an object representing a grouping of data in a job. A job can contain one or more documents. The documents in a job can differ from each other in some ways. For example, they can contain different data and can have different document formats. A document in a job can contain printable data or a resource that is not printable by itself. See *file-reference document*, *printable document*, and *resource document*.

**document element**

A portion of a document at least a single page in size.

**document format**

In InfoPrint, a document format describes the type of the data and control characters in the document, such as line data or PostScript. The format of the data determines which printer devices are capable of printing the document and whether InfoPrint must transform the format.

**document identifier**

A string that identifies a document in a job. It consists of a job ID followed by a period (.) and a document sequence number. For example, 12.2. Document sequence numbers are integers starting at 1.

**Document Printing Application (DPA)**

An ISO/IEC 10175 standard that addresses those aspects of document processing that enable users in a distributed open systems environment to send electronic documents to shared, possibly geographically-dispersed printers. InfoPrint supports the DPA standard.

**document transfer method**

In InfoPrint, the transfer method describes how documents are transferred to, or acquired by, servers. See *pipe-pull* and *with-request*.

**document type**

In InfoPrint, the document type describes the kind of data in the document. A

*printable document* can only contain printable data. A *resource document* can only contain data such as fonts or form definitions that are not printable. A *file reference document* can only contain names of files entered on separate lines.

**dot** The individual elements of a halftone.

**dot gain**

An increase in the size of a halftone dot during printing, caused by ink spreading. Generally, this value is known precisely, and the scanning and filming production process is calibrated to compensate for it. The Cromalin proofing system simulates this effect.

**dots per inch (dpi)**

A measure of data density per unit distance. Typical values for desktop publishing range from 200 to 300 dpi.

**DPA** Document Printing Application.

**DPF** Distributed Print Facility.

**dpi** Dots per inch.

**drag and drop**

In graphical user interfaces, a procedure by which you perform actions and tasks. Using the mouse, you drag (move) an action or object icon to a new position where you want the action or task to occur.

**DSS** Destination support system.

**dummy**

A rough paste-up or hand-drawn representation of the anticipated finished product. A dummy is used for basic design and pagination.

**duplex printing**

Printing on both sides of the paper. Contrast with *simplex printing* (1).

Printing on both sides of the paper, placing output images on the media in a head-to-head format, so that the top of one image is at the same edge as the top of the next image. Contrast with *tumble duplex printing*; see also *simplex printing* (2).

**E**

**early binding**

In InfoPrint, assigning a job to an actual destination as soon as it is accepted. Early

binding permits InfoPrint to estimate the time when the job will be completed. Contrast with *late binding*.

**edition binding**

A type of book binding in which printed sheets are folded into 16- or 32-page signatures. Four-page endleaves are pasted on the outside of the first and last signature. The signatures are then collated by machine and sewn together using special sewing machines. Contrast with *perfect binding*, *spiral binding*, and *wire-o binding*.

**electronic document**

A document stored in a computer instead of printed on paper.

**electronic mail**

Correspondence in the form of messages sent between workstations over a network. Synonymous with *email*.

**electrophotographic**

Pertaining to a type of printer technology that creates an image on paper by uniformly charging the photoconductor, creating an electrostatic image on the photoconductor, attracting negatively charged toner to the discharged areas of the photoconductor, and transferring and fusing the toner to paper.

**em**

In composition, a unit of measurement exactly as wide and as high as the point size of the font being set. The name is derived from the fact that the letter M in early typefaces was usually cast on a square body.

**email** Electronic mail.

**email destination**

In InfoPrint, an actual destination representing an electronic mailing system.

**email destination support system**

In InfoPrint, the destination support system that supports email destinations.

**embellishments**

Variable data added to all copies of assembled pages to make the unit appear like a whole; for example, headers, footers, a table of contents, and chapter separations.

**en**

In composition, exactly one-half an em.

**enable**

In InfoPrint, the action that makes a destination, queue, or server able to accept jobs, or a log able to accept information.

**end sheet**

The sheet of paper, blank or otherwise, that can follow a job. See also *auxiliary sheet*.

**Enhanced X-Windows**

A tool designed to permit multiple application processes to operate in multiple windows displayed on a virtual terminal. See *X-Windows*.

**environment variable**

Any one of a number of variables that describe the way an operating system runs and the devices it recognizes.

**error log**

A data set or file in a product or system where error information is stored for later access.

**estimate**

The professional cost analysis made by a print shop in response to a customer's request for a price quotation on a print job.

**event** In InfoPrint, an occurrence in the printing system during an operation; for example, the completion of a command.

**event log**

In InfoPrint, a collection of messages about events that have occurred.

**event notification**

The notification that is sent by InfoPrint for an event.

**F**

**fax destination**

In InfoPrint, an actual destination representing a fax device.

**FIFO (first-in-first-out)**

In InfoPrint, a queuing technique where the next job assigned to the first position in the queue is the job that has been in the queue for the longest time. InfoPrint processes jobs in the order in which they are received. Contrast with *deadline*, *job-priority*, *longest-job-first*, and *shortest-job-first*.



**file-reference document**

In InfoPrint, a file containing the names of other files, each entered on a separate line. Job submitters can specify this file for printing when they specify a document type of **file-reference**; InfoPrint prints each file listed in the reference document.

**File Transfer Protocol (FTP)**

In TCP/IP, the application protocol that makes it possible to transfer data to and from host computers and to use foreign hosts indirectly.

**finisher**

A hardware device attached to a printer that performs such operations as folding or stapling the printed pages.

**finishing**

In a print shop, the final operations on a printed product, such as stapling, trimming, drilling, folding, embossing, varnishing, gluing, shrink wrapping, perforating, laminating, collating, and so on.

**flag**

A modifier of a command that specifies the action of the command. A dash usually precedes a flag. Synonymous with *option*. See also *keyword*.

**FOCA** Font object content architecture.

**folder** In the InfoPrint GUI, an object that represents a container for a collection of similar objects. For example, the Retained Jobs folder contains retained jobs.

**font** A family of characters of a given size and style; for example, 9-point Helvetica.

One size and one typeface in a particular type family, including letters, numerals, punctuation marks, special characters, and ligatures.

A paired character set and code page that can be used together for printing a string of text characters. A double-byte font can consist of multiple pairs of character sets and code pages.

**form definition**

A resource object used by InfoPrint that defines the characteristics of the form or printed media, which include: overlays to be used, the paper source (for cut-sheet printers), duplex printing, text

suppression, and the position of composed-text data on the form.

**forward space**

In InfoPrint, the action used to move ahead and skip the printing of a specified number of pages in a job.

**FPO** Low-quality (sometimes photographic) images placed in a dummy to represent final images. Desktop publishing software produces images as display-screen resolution FPOs.

**front panel**

In the CDE, a workspace area containing controls that represent various tasks you can perform and workspace switches.

**FTP** File Transfer Protocol.

**G**

**GCR** Gray component replacement.

**Generalized Fax destination support system**

In InfoPrint, the destination support system that supports generalized fax destinations.

**GIF** Graphics Interchange Format.

**global change**

In the InfoPrint GUI, an action used to make changes to one or more attributes of several objects at once. You can also perform the same action on several objects of the same object class at the same time; for example, disabling two or more actual destinations at the same time.

**global character**

A character or set of characters used to specify an unknown number or set of characters in a search string. In InfoPrint, a global character is represented by an asterisk (\*).

**global ID**

Global job identifier.

**global job identifier**

An unambiguous job identifier. In InfoPrint, it is represented as the name of the server managing the job followed by a colon (:) and a generated integer. This ID uniquely identifies the job in the InfoPrint server.

**glyph** An image, usually of a character, in a font.

## GOCA

Graphics object content architecture.

### graphic character

A visual representation of a character, other than a control character, that is normally produced by writing, printing, or displaying.

### Graphical User Interface (GUI)

A type of user interface that takes advantage of a high-resolution monitor and includes a combination of graphics to implement an object-action paradigm, the use of pointing devices, menu bars, overlapping windows, and icons. Contrast with *Command Line Interface*.

### Graphics Interchange Format (GIF)

A compressed graphics format widely used on the Internet.

### gray component replacement (GCR)

Synonym for *under color removal (UCR)*.

### gray scale

A strip of standard gray tones, ranging from white to black, placed at the side of the original copy during photography to measure the tonal range and contrast obtained.

**GUI** Graphical User Interface.

**gutter** The blank area or inner margin from the printing area to the binding.

## H

### halftone

A printing method that simulates continuous-tone shading using dots of varying sizes laid out on a rectangular grid. Larger dots simulate darker tones and smaller dots simulate lighter tones. Typical grid spacings are 85 lines per inch (lpi) (newspaper), 133 lpi (low end), 150 lpi (midrange), and 175+ lpi (high quality).

**help** In the InfoPrint GUI, an action used to display the online help for a specific template, object, action, button, control, or area in an application window.

The name of a button used to access the online help.

**hold** An indication determined by the **job-hold**

attribute that is used to keep a job in the queue and prevent InfoPrint from scheduling it.

### hostname

The name given to an AIX system.

### hot folder

A workstation directory where users copy jobs to submit them to print.

### hypertext

A way of presenting information online with connections between one piece of information and another. These connections are called hypertext links. See also *hypertext link*.

### hypertext link

A connection between one piece of information and another. Selecting a link displays the target piece of information.

## I

**icon** A graphic symbol displayed on a screen that a user can click to invoke a function or software application.

**image** Toned and untoned pels arranged in a pattern.

### image data

Rectangular arrays of raster information that define an image.

### imagesetter

A high resolution (1270–3600+ dpi) printer that uses an Argon (green) laser to write to film using digital input. Imagesetting is the step before Cromalin proofing and platemaking.

### imposition

The process of arranging pages on a press sheet to ensure the correct order during final cutting, folding, and binding. Electronic imposition builds press sheets automatically during the RIP and outputs film formatted for immediate use in platemaking.

### InfoPrint

A solution of software and hardware products that can supplement or replace the offset presses and copiers in print shops with high-quality, non-impact, black and white or process color printers. InfoPrint takes documents from creation to the published, kitted, and shipped product.

In InfoPrint software publications, InfoPrint Manager for AIX or any of its components.

**InfoPrint Manager for AIX**

The software component of InfoPrint. InfoPrint Manager for AIX handles the scheduling, archiving, retrieving, and assembly of a print job and its related resource files. It also tracks the finishing and packaging of the printed product.

InfoPrint Manager for AIX is based on Palladium technology developed at MIT/Project Athena. It conforms to the ISO DPA and POSIX standards.

**InfoPrint Network**

The local area network running TCP/IP protocol that InfoPrint uses to communicate among servers, clients, and output devices.

**InfoPrint Select**

The component of InfoPrint Manager for AIX that lets you submit jobs from an OS/2® or Windows workstation.

**InfoPrint Submit Express**

The component of InfoPrint Manager that lets you submit jobs with a job ticket from a Windows or Macintosh workstation.

**InfoPrint 20**

A black and white, large-format, cut-sheet, workgroup laser printer with optional duplexing and 600-dpi resolution.

**InfoPrint 60**

A duplex, black and white, cut-sheet printer with 600-dpi resolution.

**InfoPrint 62**

A non-impact, continuous-forms printer that runs at a maximum of 62 impressions-per-minute (depending on forms size), and is factory set to run at either 240 or 300 dpi on a maximum paper size of 370.8 mm (14.6 in.).

**InfoPrint 4000**

A duplex, black and white, continuous-forms printer with 600-dpi resolution.

**initial value document**

Synonym for *default document*.

**initial value job**

Synonym for *default job*.

**initial value object**

Synonym for *default object*.

**initially settable attribute**

An attribute whose value can be established when an object is created but cannot be subsequently set or modified. See also *resettable attribute*; contrast with *non-settable attribute*.

**input focus**

The area of a window where user interaction is possible from either the keyboard or the mouse.

**input tray**

For a printer device, the container that holds the medium upon which the printer prints its output.

**Intelligent Printer Data Stream (IPDS)**

An all-points-addressable data stream that enables users to position text, images, and graphics at any defined point on a printed page.

Information that the host sends to IPDS printers. This information generally contains basic formatting, error recovery, and character data and enables the printers to make decisions.

An architected host-to-printer data stream that contains both data (text, image, graphics, and bar codes) and controls defining how the data is to be presented. IPDS provides a device-independent interface for controlling and managing all-points-addressable (APA) printers.

**International Organization for Standardization (ISO)**

An organization of national standards bodies from various countries established to promote development standards to facilitate international exchange of goods and services, and develop cooperation in intellectual, scientific, technological, and economic activity.

**Internet**

A wide area network connecting thousands of disparate networks in industry, education, government, and research. The Internet network uses TCP/IP as the protocol for sending information.

**Internet Protocol**

The set of rules that determines how to

route data from its source to its destination in an internet environment.

### **intervening jobs**

In InfoPrint, the number of jobs in a queue that are scheduled to print before the job in question.

**IOCA** Image object content architecture.

### **IP address**

The Internet Protocol address of the server in a dotted decimal format where each node is an integer. (For example, 9.99.9.143).

**IPDS** Intelligent Printer Data Stream.

**ISO** International Organization for Standardization.

## **J**

**job** In InfoPrint, an object that represents a request to print or send one or more documents together in a single session. A job includes the data to be printed or sent and resources such as fonts, images, and overlays. Depending on how it was submitted, it can also include a job ticket. Synonymous with *job bundle* and *print job*.

### **job bundle**

Synonym for *job*.

### **job data**

The page descriptions, merge data, and embellishments that compose a document in a job, either directly or by reference.

### **job ID**

A local or a global identifier that identifies a job to a job submitter, administrator, operator, or InfoPrint. See *local job identifier*, *global job identifier*.

### **job-priority**

In InfoPrint, a queuing technique where the next job assigned to the first position in the queue is the one with the highest priority. Contrast with *deadline*, *FIFO* (*first-in-first-out*), *longest-job-first*, and *shortest-job-first*.

### **job submitter**

In InfoPrint, the person who submits jobs for printing. Often, this person is an application programmer who maintains applications that generate data to be printed.

### **job ticket**

The customer's hardcopy or electronic instructions listing all the variables describing a print job, either directly or by reference. The print shop can add specifications to the job ticket and can print the job ticket.

### **Joint Photographic Experts Group (JPEG)**

A compressed graphics format widely used on the Internet.

**JPEG** Joint Photographic Experts Group.

## **K**

### **kerning**

In typesetting, adjusting the relative spacing of two characters to improve their appearance and readability. Kerning pairs are specific sets of characters with built-in relative spacing. Some typefaces have as many as 100 kerning pairs.

### **keyword**

A name or symbol that identifies a parameter.

Part of a command operand that consists of a specific character string, such as **DSNAME=**.

### **kitting**

In a print shop, packaging the completed published work with attendant binders, tabs, diskettes, and other equipment or information, before shipping the finished product.

## **L**

**LAN** Local Area Network.

### **laser (light amplification by stimulated emission of radiation)**

In InfoPrint printers, a device that emits a beam of coherent light that forms the image on the photoconductor that is subsequently transferred to the paper.

### **late binding**

In InfoPrint, waiting to assign a job to an actual destination until it is about to be processed. Late binding permits InfoPrint to route a job to the first suitable actual destination that becomes available. Contrast with *early binding*.

**LED** Light-emitting diode.

**light-emitting diode (LED)**

The imaging device element for electrophotographic print units.

**lines per inch (lpi)**

A measure of the density of the grid used to space halftone dots. Typical grid spacings are 85 lpi (newspaper), 133 lpi (low end), 150 lpi (midrange), and 175+ lpi (high quality).

**Local Area Network (LAN)**

A computer network at one location that consisting of devices connected to one another and communicating. This network can also be connected to a larger network.

**local ID**

Local job identifier.

**local job identifier**

In InfoPrint, a job identifier automatically generated by the server, identifying the job to the person who submitted it. InfoPrint maps a local job ID to a global job ID.

**locale** The human language and character set of information presented to a user.

In InfoPrint, the language InfoPrint uses when sending notification and error messages or displaying the InfoPrint graphical user interfaces.

**log** A collection of messages or message segments added to a file for accounting or data collection purposes.

To record messages in a file.

**logical destination**

In InfoPrint, an object to which users submit their jobs. The logical destination routes jobs to one or more actual destinations representing output devices such as printers, electronic mail systems, or fax machines. See also *logical printer*; contrast with *actual destination*.

**logical printer**

In InfoPrint, a type of logical destination. The logical printer routes jobs to one or more physical printers representing printing devices.

**logical unit (LU)**

A type of network accessible unit that

enables end users to gain access to network resources and communicate with each other.

**logical unit (LU) 6.2**

A type of logical unit that supports general communication between programs in a distributed processing environment. LU 6.2 is characterized by (a) a peer relationship between session partners, (b) efficient utilization of a session for multiple transactions, (c) comprehensive end-to-end error processing, and (d) a generic application program interface (API) consisting of structured verbs that are mapped into a product implementation.

**longest-job-first**

In InfoPrint, a queuing technique where the next job assigned to the first position in the queue is the longest job in the queue. Contrast with *deadline*, *FIFO (first-in-first-out)*, *job-priority*, and *shortest-job-first*.

**lpi** Lines per inch.

**LU** Logical unit.

**M****magnetic ink character recognition (MICR)**

Identification of characters printed with ink that contains particles of magnetic material.

**mainframe processor**

A functional unit that interprets and executes instructions in a large computer to which other computers are connected so that they can share the facilities the mainframe provides.

**makeready**

All the setup work involved in preparing a press for a print run.

**manage**

In the InfoPrint GUI, the action used to put an object into a mode where its icon reflects changes of status.

**mechanical**

A camera-ready layout. The mechanical can consist of multiple sheets or overlays for each spot or process color used. Final images, if not stripped in later, should be at final size, cropped and screened to the correct line frequency.

**medium**

In InfoPrint, an object representing the physical material upon which a job is printed.

**merge data**

Data that is unique to each copy of a document and that customizes the document; for example, serial numbers or mailing information. Merge data is typically a small percentage of the total data in the document.

**message catalog**

A file of all the possible messages that can display during the processing of an application.

**MICR** Magnetic ink character recognition.

**Mixed Object Document Content Architecture (MO:DCA)**

An architected, device-independent data stream for interchanging documents.

**MO:DCA-P**

Mixed Object Document Content Architecture Presentation.

**modify**

In InfoPrint, an action used to modify the values of attributes in the object attributes notebook.

**moire** Undesirable interference patterns caused by two overprinting halftone screens with incorrect halftone dot angles.

**monospaced**

In typesetting, pertaining to a typeface in which all the characters have equal widths. Monospaced typefaces are useful for tabulating figures.

**Multiple Virtual Storage (MVS)**

An operating system developed by IBM. The design of MVS incorporates an addressing architecture that provides a unique address space to each job in the system.

**MVS** Multiple Virtual Storage.

**N**

**N\_UP** Pertaining to the number of forms placed together in a layout. Typical layouts are 2\_UP, 4\_UP, 8\_UP, 16\_UP, and so on. N\_UP printing is done to use the maximum area of the print sheet.

**namespace**

A global name repository available to all utilities and API procedures. The namespace contains mappings of object names to other related objects. For example, the namespace provides the mapping of a logical destination to the server in which it is located.

**Network File System (NFS)**

A protocol developed by Sun Microsystems that uses Internet Protocol to allow a set of cooperating computers to access each other's file systems as if they were local.

**newline options**

The different ways in which the printer determines how lines are delimited in a document data stream.

**NFS** Network File System.

**non-process-runout (NPRO)**

A printer function that moves the last printed sheet to the stacker of the printer device.

**non-settable attribute**

An attribute that is neither initially settable nor resettable. The values for these attributes are controlled by InfoPrint. Contrast with *initially settable attribute* and *resettable attribute*.

**notification**

The act of reporting the occurrence of events.

In InfoPrint, notification of events appears as messages in event logs or messages sent to administrators, operators, and job submitters. In the InfoPrint GUI, notification of events also appears as changes to the appearance of icons.

**notification-profile**

In InfoPrint, an attribute associated with an object that contains information designating the people to whom InfoPrint sends notification about events for that object, which event information it sends, and how it sends the information.

**NPRO** Non-process-runout.

**O**

**object** A collection of attributes that represent a physical or logical entity in the print system. For example, a specific printer

device is represented by an actual destination (physical printer) object. An object is identified by its object name. Objects are grouped into classes. See also *object class*.

**object class**

A group of objects that share a common definition and therefore share common properties, operations, and behavior as defined by their attributes. For example, all InfoPrint queue objects are in the same object class and each queue has the same set of queue attributes. However, the values for those attributes can differ for each queue in the queue object class.

**Object Identifier (OID)**

In architecture, a notation that assigns a globally unambiguous identifier to an object or a document component. The notation is defined in international standard ISO.IEC 8824(E).

**object name**

The alphanumeric term that identifies an object.

**object state**

The state of an object indicates its availability and readiness for performing its functions. An object can be in one of a number of states such as ready, busy, or unknown.

**OCR** Optical character recognition.

**octet** A byte that consists of eight binary digits (bits).

**offset stacking**

In certain printer devices, a function that allows the printer to offset the printed output pages for easy separation of the jobs.

**OID** Object Identifier.

**open destinations window**

In the InfoPrint GUI, the action used to open a new application window displaying the logical and actual destinations associated with a queue.

**Open Prepress Interface (OPI)**

An industry standard for replacing low-resolution images in review documents with high-resolution images needed for high-quality final output.

**Open Software Foundation (OSF)**

A nonprofit research and development organization created by a consortium of companies that work together to develop software in the open systems market.

**OpenType font (OTF)**

An extension of the TrueType font format that adds:

- Support for PostScript outlines
- Better support for international character sets
- Broader support for advanced typographic control

**open window**

In the InfoPrint GUI, the action used to open a new application window representing one or more objects displayed in the currently open application window.

**operation**

An action performed on one or more data items.

**operator**

In InfoPrint, the person responsible for printer devices. Also, this person performs a subset of tasks for InfoPrint queues and actual destinations and performs some job-related tasks.

**OPI** Open Prepress Interface.

**optical character recognition (OCR)**

Conversion of scanned text to editable ASCII characters.

**option** A modifier of a command that specifies the action of the command. A dash usually precedes an option. Synonymous with *flag*. See also *keyword*.

**orphan logical destination**

In the InfoPrint GUI, an object that represents a logical destination that is not associated with an existing queue.

**orphan logical printer**

In the InfoPrint GUI, an object that represents a logical printer that is not associated with an existing queue.

**OSF** Open Software Foundation.

**overlay**

A collection of constant data, such as lines, shading, text, boxes, or logos, that is electronically composed in the host

processor and stored in a library, and that can be merged with variable data during printing.

**OTF** OpenType font.

## **P**

**PAC** Privilege Attribute Certificate.

### **page definition**

A resource that contains the formatting controls for line data.

In InfoPrint, a resource that defines the rules of transforming line data into composed pages and text controls.

### **page segment**

A resource that contains composed text and images, which are prepared before formatting and included during printing.

### **Palladium**

A distributed print system developed at MIT/Project Athena with participation from Digital Equipment Corporation (DEC), International Business Machines (IBM), and Hewlett-Packard (HP). It is a reference implementation for the OSI Document Printing Architecture (DPA) standard, ISO/IEC 10175.

**pane** In the Work Area of the InfoPrint Manager Administration GUI, an area containing a group of objects of a specific type, such as an actual destinations pane.

### **parent/child relationship**

In InfoPrint, servers, queues, and destinations are related to one another in a parent/child relationship. For example, a server is the parent of all the queues that reside in that server, and these queues are its children.

### **pass through**

In InfoPrint, referring to options submitted with a job that are used by the device driver, but not InfoPrint. InfoPrint does not process or validate this information; it passes it along to the device driver. See *printer driver*.

**path** The route used to locate files; the storage location of a file. A fully qualified path lists the drive identifier (if any), directory name, subdirectory name (if any), and file name with the associated extension.

**pause** In InfoPrint, the action used to

temporarily halt the printing or transmission of jobs on actual destinations or the distribution of jobs from servers or queues.

### **pdcreate**

In InfoPrint, the command used to create a new object and set its attributes to specified values.

**PDF** Portable Document Format.

Printer description file.

### **pdmsg**

In InfoPrint, a utility used to display information about a message.

**pdpr** In InfoPrint, the command used to create and submit a job, consisting of one or more documents, to a server for printing or transmission.

### **perfect binding**

A type of book binding in which the pages are held together with flexible adhesive. Contrast with *edition binding*, *spiral binding*, and *wire-o binding*.

### **permissions**

In AIX, codes that determine who can access a file and what operations they can perform on the file.

### **physical printer**

In InfoPrint, a type of actual destination that represents a printer device. See also *printer device*.

**piobe** The standard printer input/output backend program used by AIX for printing. See also *ainbe*.

### **pipe-pull**

In InfoPrint, a document transfer method where InfoPrint saves the documents in a file and transfers the address of the file to the server. InfoPrint transfers the file to the server upon the request from the server. This is an efficient transfer method for large jobs and is the default transfer method at job submission. Contrast with *with-request*.

**plex** A document or actual destination attribute used to define the placement of output images on the page. See the plex values *simplex* and *tumble*.

### **Portable Document Format (PDF)**

An Adobe PostScript data format that can be viewed or printed.



**Portable Operating System Interface for Computer Environments (POSIX)**

An Institute of Electrical and Electronics Engineers (IEEE) standard for computer operating systems.

**POSIX**

Portable Operating System Interface for Computer Environments.

**PostScript**

Adobe's page description language. PostScript has become a standard for graphic design and layout software. PostScript files can contain both vector and raster data. Fonts are described using PostScript coding. Many desktop publishing systems produce PostScript data as their output data stream.

**PostScript printer description (PPD)**

A file that contains options for printing PostScript data on various printer devices.

**PPD** PostScript printer description.

**preflight**

To assess all resources for a job before the actual print run.

**prepress**

Work done in the print shop before printing a job, such as preparing data and art, page imposition, color retouching, electronic editing, and page layout.

**print database**

The set of files on disk that provide a permanent repository for the attributes of all print objects, such as logical destinations, queues, and actual destinations.

**print job**

Synonym for *job*.

**Print Quality Enhancement (PQE)**

A printer facility that provides edge smoothing along diagonal lines, fine fidelity protection, and independent boldness control.

**Print Services Facility™ (PSF)**

Any of several programs, including PSF for AIX, PSF/MVS, PSF/VM, and PSF/VSE, that produce printer commands from the data sent to them.

**print system**

A group of one or more print servers and one or more printing devices, which

might or might not be located in the same geographical area. The components of a print system are assumed to be interconnected in some manner, providing at least one network interface to print clients, and acting synergistically to supply the defined document print service. (D)

**printable document**

In InfoPrint, an object that represents text or data to be printed by a job. Contrast with *resource document*.

**printer description file (PDF)**

A file that contains options for printing PostScript data on a specific printer device.

**printer device**

The physical output device that performs the printing function. See also *physical printer*.

**printer driver**

A file that describes the physical characteristics of a printer or other peripheral device. This file is used to convert graphics and text into device-specific data at the time of printing or plotting. Synonymous with *device driver*.

**priority**

In InfoPrint, a number assigned to a job that determines its precedence in being printed. Jobs with higher priority numbers are handled before jobs with lower priority numbers.

**process color**

Color made up of CMYK links simulating a specified color. This is the traditional method of reproducing continuous tone color images (color separations). Because of the nature of color inks, certain inks do not reproduce well.

**processor**

In a computer, a functional unit that interprets and executes instructions. A processor consists of at least an instruction control unit and an arithmetic and logic unit. (T)

**promote**

In InfoPrint, the action used to move a job to the beginning of the queue so that it will print on the next available printer that can handle that job.

**protocol**

A set of semantic and syntactic rules that determines the behavior of functional units in achieving communication.

**PSF** Print Services Facility.

**PSF destination support system**

In InfoPrint, the destination support system that communicates with PSF for AIX to print jobs.

**PSF physical printer**

In InfoPrint, the object representing a printer device that uses the PSF destination support system.

**Q****QuarkXpress**

A desktop publishing system produced by Quark, Incorporated.

**queue** In InfoPrint, an object that manages a collection of jobs that are waiting to print. A queue receives jobs from one or more logical destinations and sends jobs to one or more actual destinations.

A line or list formed by items waiting for processing.

**R**

**raster** A pattern of dots defined at varying data depths. Black and white images are one-bit (on/off); grayscale images are 8-bit (256 levels); RGB images are 24-bit; CMYK images are 32-bit.

**raster image processor (RIP)**

A processor in which a PostScript data stream is converted into dot patterns that are transferred to the final print medium. InfoPrint uses an Adobe RIP to convert PostScript to IPDS for such printers as the InfoPrint 4000 and InfoPrint 60.

**rc.pd** In InfoPrint, a utility used to start the InfoPrint servers listed in the `/etc/pd.servers` file.

**read-only**

In InfoPrint, describes an attribute value that cannot be set by the user but can change based on other activity.

**ready** A state in which an object is ready and able to perform tasks.

An available resource, such as a value of the **media-ready** attribute. Contrast with *supported*.

**red, green, blue (RGB)**

The colors of CRT display phosphors. RGB images are for screen display only. They must be converted to CMYK images before printing.

**registration**

The accuracy of printing on paper relative to the edges of the paper.

The accuracy of printing a single color (cyan, magenta, or yellow) relative to black.

The accuracy of printing on one side of a page relative to printing on the reverse side of the page.

**reprographics**

The process of copying or duplicating documents or information.

**requested**

In InfoPrint, pertaining to the specific values of attributes requested by a job when it is submitted. The requested attribute values of a job are validated against supported attribute values for an actual destination to determine if the printer can handle that job. Contrast with *supported*.

**resettable attribute**

An attribute whose value can be set or modified after an object has been created, assuming the object is in an appropriate state to be modified. See also *initially settable attribute*; contrast with *non-settable attribute*.

**resource**

In AFP, a file containing a collection of printing instructions used when printing a job. Resources include fonts, overlays, form definitions, page definitions, and page segments.

**resource context**

In InfoPrint, an object that contains directory path information that helps the print system locate resources needed for printing a job. The resources include fonts, overlays, form definitions, page definitions, and page segments.

**resource document**

In InfoPrint, an object that represents a

resource, such as graphics or fonts, used by a job to print a printable document. Contrast with *printable document*.

**resubmit**  
In InfoPrint, an action used to reroute pending or retained jobs to a different logical destination than the one through which the job was originally submitted.

**resume**  
In InfoPrint, the action used to resume the printing of paused jobs or resume the distribution of jobs from paused servers or queues.

**retained job**  
In InfoPrint, an object that represents a job that is being stored in the print system for a specified amount of time, normally after the completion of printing the job. A retained job does not reside in a queue.

**retention**  
The process of storing data after completion of a process for a certain length of time.

**retrieval**  
The process of bringing digital archived data out of storage and into online memory for reuse. See also *archiving*.

**RGB** Red, green, blue.

**RIP** Raster image processor.  
To convert data to dot patterns using a raster image processor.

**root user**  
In the AIX environment, the system user with the most authority who can log in and execute restricted commands, shut down the system, and edit or delete protected files. Synonymous with *superuser*.

**RPC** Remote Procedure Call.

**RS/6000**  
A family of workstations and servers based on IBM's POWER architecture. They are primarily designed for running multi-user numerical computing applications that use the AIX operating system.

## S

**scanner**  
A device that converts hardcopy source data into digital format (halftone dots) to avoid retyping the data.

**scheduler**  
In InfoPrint, the scheduling method that the queue uses when assigning a job to an actual destination.

**separator sheet**  
The sheet of paper, blank or otherwise, that separates documents in a job. See also *auxiliary sheet*.

**server** In InfoPrint, the object that accepts configuration, management, and printing requests, performs the requested operations, and sends responses back as a result of the operation.

**settable attribute**  
See *initially settable attribute*, *resettable attribute*.

**severity**  
An indication of how serious an error condition is.

**shell** In the AIX operating system, a command interpreter that acts as an interface between the user and the operating system. In InfoPrint documentation, all shell examples use the Korn shell.

**shift-out, shift-in code**  
Control characters used to indicate the beginning and end of a string of double-byte, ideographic characters.

**shortest-job-first**  
In InfoPrint, a queuing technique where the next job assigned to the first position in the queue is the shortest job in the queue. Contrast with *deadline*, *FIFO (first-in-first-out)*, *job-priority*, and *longest-job-first*.

**shut down**  
In InfoPrint, the action used to halt all server or actual destination processes without deleting the server or actual destination.

**signature**  
A group of pages that are printed, folded, cut, and bound together. Manual placement of pages in the signature is determined using a folding dummy.

**simplex**

In InfoPrint, the value of the document or actual destination **plex** attribute indicating that output images are placed on the media in a head-to-head format, so that the top of one image is at the same edge as the top of the next image. Depending on the value of the document or actual destination **sides** attribute, the document can be printed on one or both sides of the paper. Contrast with *tumble*; see also *simplex printing* and *duplex printing*.

**simplex printing**

Printing on only one side of the paper. Contrast with *duplex printing* (1).

Printing on one or both sides of the paper, placing output images on the media in a head-to-head format, so that the top of one image is at the same edge as the top of the next image. Contrast with *tumble duplex printing*; see also *duplex printing* (2).

**SMIT** System Management Interface Tool.

**SNA** Systems Network Architecture.

**spiral binding**

A type of book binding in which wire or plastic coils are threaded through a series of holes or slots in the binding edge. Contrast with *edition binding*, *perfect binding*, and *wire-o binding*.

**spot color**

Individual colored inks formulated to exactly match a specified color. Spot color is used when CMYK process color cannot produce a reasonable facsimile of the color or when vivid color is needed. Spot color is also used when fluorescent or metallic colors are needed.

**spread**

In color printing, an area whose dimensions have been enlarged to eliminate white space between it and another color. Contrast with *choke*.

**start sheet**

The sheet of paper, blank or otherwise, that can precede a job. See also *auxiliary sheet*.

**state** Synonym for *object state*.

**stripping**

The process of mechanically assembling

film into plate layouts. Page imposition takes place during stripping.

**subnet mask**

A bit template indicating which part of an IP address represents the network. A 1 in the subnet mask means that the corresponding bit in the IP address is part of the network address; a 0 means that it is not. For example, if the IP address is 9.99.12.137 and the subnet mask is 255.255.255.0, the network address is 9.99.12.0.

**subnetwork**

Any group of nodes that have a set of common characteristics, such as the same network ID.

In the AIX operating system, one of a group of multiple logical divisions of another network, such as can be created by TCP/IP.

**subtractive color system**

A system that reproduces an image by mixing (adding) appropriate quantities of cyan, magenta, and yellow paints on white paper. These paints reflect certain colors and absorb—or subtract—others. Contrast with *additive color system*.

**superuser**

Synonym for *root user*.

**supported**

In InfoPrint, pertaining to the specific job attribute values that the actual destination can accept during job validation. InfoPrint validates the requested attribute values of the job against the supported attribute values of the actual destination to determine whether the actual destination can handle that job. Contrast with *requested*.

**synchronous**

Occurring with a regular or predictable time relationship to a specified action. Contrast with *asynchronous*.

**system administrator**

Synonym for *administrator*.

**System Management Interface Tool (SMIT)**

In the AIX operating system, an interface tool for installation, maintenance, configuration, and diagnostic tasks. SMIT lets you perform tasks without entering any commands.

### **Systems Network Architecture (SNA)**

The description of IBM's logical structure, formats, protocols, and operational sequences for sending units through, and controlling the configuration and operation of, networks.

## **T**

### **table reference character (TRC)**

An optional control character in a print data set. The TRC identifies the font used to print the record and can be used to select a font during printing.

### **Tagged Image File Format (TIFF)**

A digital format for storing scanned images. TIFF files are also referred to as raster format files (as opposed to vector format files). When used in desktop publishing, TIFF files produce only a low-resolution FPO image; the high-resolution data remains on the hard disk.

### **task help**

A type of online help that provides a list of tasks that can be completed with a selected object. When you select a task, the help provides step-by-step information about how to complete the task.

### **TCP/IP**

Transmission Control Protocol/Internet Protocol.

### **TCP/IP-attached printer**

A printer device attached to an RS/6000 computer through telecommunication lines using the TCP/IP protocol.

In InfoPrint, a PSF physical printer that represents a TCP/IP-attached printer device. See also *AIX-attached printer*, *direct-attached printer*, and *upload-TCP/IP-attached printer*.

### **template**

In the InfoPrint Manager Administration GUI, an object that represents a set of default attribute values that has been defined for creating a particular type of object, such as an actual destination.

**ticket** See *job ticket*.

**TIFF** Tagged Image File Format.

### **Transmission Control Protocol/Internet Protocol (TCP/IP)**

A set of communication rules used in the Internet and in any network that follows the U.S. Department of Defense standards for inter-network protocol. TCP provides a reliable host-to-host protocol between hosts in packet-switched communications networks and in interconnected systems of such networks. It assumes that the Internet Protocol (IP) is the underlying protocol. See also *Internet Protocol*.

### **trapping**

In desktop publishing, the amount of overlap in overprinting colors. Trapping prevents white paper showing through gaps caused by normal errors in registration. On sheet-fed presses, trapping is usually 0.25 point. See also *choke* and *spread*.

**TRC** Table Reference Character.

### **TrueType font (TTF)**

A font format based on scalable outline technology with flexible hinting. Glyph shapes are based on quadratic curves. The font is described with a set of tables contained in a TrueType Font File.

**TTF** TrueType font.

### **tumble**

In InfoPrint, the value of the document or actual destination **plex** attribute indicating that output images are placed on the media in a head-to-toe format, so that the top of one image is at the same edge as the bottom of the next image. The document must be printed on both sides of the paper. Contrast with *simplex*.

### **tumble duplex printing**

Printing on both sides of the paper, placing output images on the media in a head-to-toe format, so that the top of one image is at the same edge as the bottom of the next image. Contrast with *simplex printing (2)*, *duplex printing (2)*.

## **U**

**UCR** Under color removal.

### **under color removal (UCR)**

Conversion of neutral color areas to black ink that reduces use of CMY inks, improves trapping, and reduces setup time. Generally, UCR is performed during

image scanning, but some RIPs perform it during processing. Synonymous with *gray component replacement (GCR)*.

**unmanage**

In the InfoPrint Manager Administration GUI, the action used to put an object into a mode where its icon does not reflect the changes of status for the object.

**upload printer**

See *upload-TCP/IP-attached printer*.

**upload-TCP/IP-attached printer**

In InfoPrint, a PSF physical printer that represents a printer device attached through an MVS system and managed by PSF/MVS. InfoPrint communicates with the MVS system through the TCP/IP network. See also *AIX-attached printer*, *direct-attached printer*, and *TCP/IP-attached printer*.

**V**

**validate**

In InfoPrint, to compare the attribute values requested by a job with the supported attribute values of the actual destinations in the system and to determine whether there is an actual destination capable of printing or sending the job.

**value** A specific characteristic of an attribute.

**variable**

A name used to represent a data item whose value can change while the program is running.

**variable data**

Data that can be changed between copies of a document. For example, a form letter (constant data) can be merged with variable data, such as a customer's name and address to produce personalized documents.

**varnish**

A protective layer applied to a finished sheet, usually for photos, but sometimes used as a design element because of its reflective qualities. Varnishes can be tinted.

**vector** An absolute coordinate point and line in space. PostScript files can contain vector artwork. Vector files are converted to rasters during the RIP process.

**velox** A black and white photographic print made from a halftone negative, to be used as a proof copy.

**vignette**

An image with soft, fade-away edges.

**Virtual Machine (VM)**

An IBM licensed product that manages the resources of a single computer so that multiple computing systems appear to exist.

A virtual data processing system that appears to be at the exclusive disposal of a particular user, but whose functions are accomplished by sharing the resources of a real data processing system. (T)

**Virtual Storage Extended (VSE)**

An IBM licensed program whose full name is the Virtual Storage Extended/Advanced Function. It is a software operating system controlling the execution of programs.

**Visual Systems Management (VSM)**

In AIX, a type of graphical user interface that allows system management through the direct manipulation of objects.

**VM** Virtual Machine.

**VSE** Virtual Storage Extended.

**VSM** Visual Systems Management.

**W**

**web** A roll of paper used in web or rotary printing.

**well** In the InfoPrint Manager Administration GUI, an area in a pane that contains a group of objects related to the objects in the pane; for example, a queues well in a servers pane.

**what you see is what you get (WYSIWYG)**

Refers to the fact that the composite image displayed on the screen at a computer workstation has the appearance of the final printed image.

**window**

A rectangular area of the screen that you can move about, place on top of, or pull under other windows, or reduce to an icon.

**wire-o binding**

A continuous double series of wire loops

run through punched slots along the binding side of a booklet. Contrast with *edition binding*, *perfect binding*, and *spiral binding*.

**with-request**

In InfoPrint, a document transfer method where the client transfers the documents directly to the server. Contrast with *pipe-pull*.

**workstation**

A terminal or microcomputer, usually one that is connected to a mainframe or to a network, at which a user can use applications.

**write access**

A level of authorization that grants the ability to modify data.

**WYSIWYG**

What you see is what you get.

**X**

**X-Windows**

A network-transparent windowing system developed by MIT. It is the basis for Enhanced X-Windows, which runs on the AIX Operating System.

**xerography**

A dry printing process using corona-charged photoconductive surfaces to hold latent images that are developed with a dry toner and then transferred to paper and fused with heat.

**Xstation**

A terminal that is connected through a network to an RS/6000 computer, from which a user can perform command-line functions and run X-Windows based applications.





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