



Using Infoprint Manager Impositioning with the Infoprint 4100 Advanced Function Printing System

Version 3 Release 2



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About This Publication

This publication provides information about using the Infoprint Manager impositioning solution with the Print Optimizer component. Please note that this solution requires an impositioning software program, such as ScenicSoft's Preps that can create Adobe Portable Job Ticket (*.pjtf) files that contain the layout values required for this end-to-end impositioning solution.

Who Should Use This Publication

This publication contains information for the Infoprint Manager for AIX system administrators who create and configure the Infoprint Print Optimizer component and Infoprint Manager for impositioning with an IBM Infoprint 4100 Advanced Function Printing System.

This document describes:

- the components necessary for this impositioning solution
- how to configure the Infoprint Manager for AIX 3.2 product to support impositioning
- the job flow for different impositioning scenarios.

Chapter 1. Infoprint Manager's Impositioning Solution

In the printing world, impositioning consists of the arrangement of pages so they will appear in proper sequence after press sheets are folded and bound. Commercial printers who create signature-based documents with frequent layout changes, while the content remains relatively static, will find value in Infoprint Manager for AIX's impositioning solution.

Users can take advantage of the wide-carriage web of the IBM 4100 Advanced Function Printing System to print up to 19.5 inches across for the creation of signature-based documents. Most importantly, this solution allows for frequent minor adjustments to existing signature document layouts, without reRIPping the entire job at the Infoprint AIX server. See "Prerequisites for the Infoprint Impositioning Solution" on page 2 for a list of the prerequisites necessary to implement this impositioning solution.

For example, if a publishing house decides to use a heavier bond of paper that results in significant page creep, or if pages need to be rotated differently because a different sequence of folds is required for an available postprocessor, Infoprint Manager's impositioning solution allows them to make changes to the layout without having to submit and reRIP the job content. This flexibility is the result of Infoprint Manager for AIX's Print Optimizer.

The Infoprint Manager for AIX Print Optimizer works in the background to maintain a database of RIPped page images. These RIPped page images contain only the information about a page's content and have no information about page layout. If only the layout is modified and the page content remains unchanged, these images do not change. The print jobs consist of signatures (a sheet with many pages and optional marks for later folding and trimming), which will be folded and stitch-bound into books. Print jobs can also contain content. When you re-print a job changing only its layout, these RIPped page images (those stored at the printer) are used, resulting in significant network traffic reduction. If the printer has been shut down before the job is re-printed, these RIPped page images are obtained from the Infoprint AIX server and do not have to be reRIPped.

The Print Optimizer:

1. Uniquely identifies each page in a PostScript or PDF source file.
2. Converts the PostScript or PDF page into an Advanced Function Presentation (AFP) resource.
3. Stores the RIPped pages as resources that are accessible by Infoprint Manager.

This document describes how you can install and configure impositioning support in order to submit Adobe Portable Job Ticket (*.pjtf) files to the Infoprint Manager server so you can better manage and track print jobs containing signatures that will be folded and stitch-bound into books. Once Infoprint Manager is configured to support impositioning, you can create *.pjtf files using the third party ScenicSoft Preps 4.0 impositioning product, submit those jobs using an Infoprint Manager hot folder or other Infoprint Submission method, and use the Infoprint 4100 Advanced Function Printing System to print out the results. Additionally, by sending only the *.pjtf files (see "Infoprint Impositioning Terms" on page 3) to the server when changes only affect the layout or page order, you should experience significant performance benefits.

Note: While other software impositioning products can output *.pjtf files, the Infoprint impositioning solution has only been tested using ScenicSoft Preps 4.0. When using Preps, ensure that the finished page size is the same page size as the **content file** (see “Infoprint Impositioning Terms” on page 3) page size. For example, if your **content file** is an Adobe Acrobat file (PDF format) containing pages 6 inches by 9 inches in size, then you should set your finished page size in Preps to 6 inches by 9 inches. Infoprint impositioning does not support scaling and page cropping can result in unsatisfactory print output.

This document covers the following topics:

1. “Prerequisites for the Infoprint Impositioning Solution”.
2. Chapter 2, “Infoprint Flow for Impositioning Jobs” on page 3.
3. Chapter 3, “Configuring Infoprint Manager for Impositioning” on page 17.
4. Chapter 4, “Managing Impositioning Resources” on page 25.
5. Chapter 5, “Troubleshooting Impositioning” on page 27.

Prerequisites for the Infoprint Impositioning Solution

To use the Infoprint Manager Impositioning solution described in this document, you must install the following components.

Note: If you are running DCE on your Infoprint Manager for AIX server, you cannot use this Impositioning solution.

- IBM Infoprint 4100 Advanced Function Printing System

Ensure that this printer contains the Version 11.2 or higher release of the Advanced Function Common Control Unit (AFCCU) microcode for High End Continuous Forms Printers. This microcode level is the first to incorporate the new IPDS pre-RIP (**RPO**) command that reduces overhead before printing the first page of a job that has been printed previously. This command is essential for the impositioning solution because it prevents the printer from clutching (waiting on data to finish processing in the middle a job printing) on Impositioning jobs.

Note: To use the Impositioning solution, you must ensure that Print On Demand (POD) mode is turned off at the IBM Infoprint 4100 Advanced Function Printing System’s controller console.

- Infoprint Manager service update PTF U475406/ APAR IY17446 (January 2002)
For more information about the applying service, see “Starting the Infoprint Installer for version 3.2” from Installing Infoprint Manager on your AIX System ([aixinsr32.pdf](#)) on the Infoprint Manager for AIX Administrator Tasks web page (<http://www.printers.ibm.com/R5PSC.NSF/Web/aixadmin>).
- A third-party impositioning product – such as ScenicSoft Preps 4.0 – to produce the Portable Adobe Job Ticket files

Chapter 2. Infoprint Flow for Impositioning Jobs

This chapter consists of the following topics:

- “Infoprint Impositioning Terms”.
- “Impositioning Job Flow Overview” on page 4.
- “Specific Impositioning Scenarios” on page 9.

This presumes that you have already:

1. Created the appropriate PDF and PostScript documents through a software package like QuarkXPress.
2. Run these files through an impositioning program like ScenicSoft’s Preps to create the Adobe Portable Job Ticket (*.pjtf) files.

Infoprint Impositioning Terms

Before describing the job flow and eventual output, the following impositioning terms must be defined:

content files

One or more PDF (*.pdf) or PostScript (*.ps) files that contain the print data from a commercial software program (such as QuarkXPress or Adobe Photoshop) that has been submitted to the ScenicSoft Preps impositioning software in order to create the **layout files**.

layout file

The Adobe Portable Job Ticket files (*.pjtf) that are the output of the SoftScenic Preps impositioning software. These files contain the layout specifications in a signature format derived from the specific **content files**.

original job

One or more files submitted to Infoprint Manager for impositioning, usually through a hot folder.

The **original job** is either:

- split into a **printing job** and a **priming job**
- or
- turned into just a **priming job** (if **prime-only=true**).

priming actual destination

Indicates the print optimizer actual destination.

priming job

A job sent to the priming logical destination and subsequently processed by the **priming actual destination**.

priming logical destination

Indicates the Infoprint logical destination that feeds jobs to the Print Optimizer actual destination. This object is created by the Print Optimizer creation wizard with the naming convention *adname-ld* where *adname* represents the name you choose in “Creating the Priming (Print Optimizer DSS) Destinations and Queue” on page 17.

printing actual destination

Indicates the PSF DSS actual destination that prints the job.

printing job

A job sent to the printing actual destination and subsequently processed by the PSF DSS.

printing logical destination(s)

Indicates the logical destination or destinations that send **priming jobs** to the **priming logical destination** and send **printing jobs** to the **printing actual destination**.

Impositioning Job Flow Overview

Now, you are ready to print both the **content files** (*.ps and *.pdf) with the layout specification files (*.pjtf) to an Infoprint 4100 Advanced Function Printing System. Throughout this chapter, the term **original job** implies both the source PostScript or PDF files and the Adobe Portable Job Ticket file (*.pjtf) in the same job, unless otherwise stated.

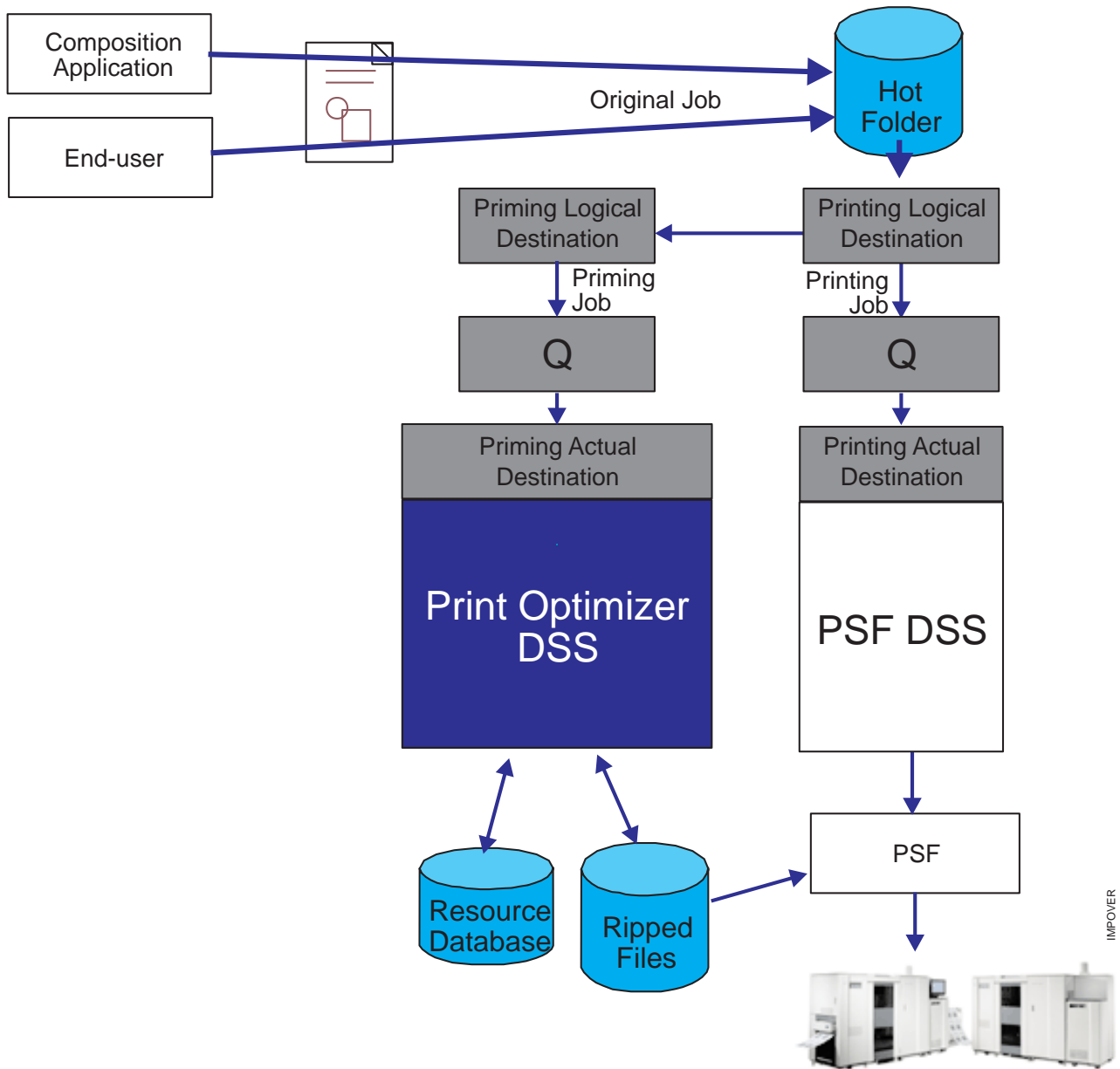


Figure 1. Overview of the Infoprint Job Flow for Impositioning Jobs

Figure 1 provides a high-level view of the processing flow of impositioning jobs in an Infoprint system. Note that the **original job** coming from either the end user or the composition application (such as QuarkXPress) travels through the Software impositioning program (the unlabeled page, representing a *.pjtf file or files that has been processed by an impositioning software program, such as Preps) before it is placed in the hot folder on the Infoprint AIX server. Then, the printing logical destination picks up the **original job** from the hot folder. At this time, Infoprint Manager assigns a job ID to the **printing job** for tracking purposes.

The **printing logical destination** then sends the **priming job** to the **priming logical destination**. At this time, Infoprint Manager assigns a job ID to this **priming job** (still both the PostScript or PDF source files and the Portable Adobe Job Ticket File)

for tracking purposes. This explains why there are two Infoprint Manager job IDs that you can track, using the tools described in Chapter 5, “Troubleshooting Impositioning” on page 27.

The **priming logical destination** feeds the Print Optimizer queue, which funnels jobs to the **priming actual destination**. Once the **priming actual destination** starts processing the **priming job**, the **printing logical destination** starts processing the **printing job**. As it needs AFP pages to print, the **printing logical destination** queries the **priming actual destination**. If these pages have not finished processing at the Print Optimizer, the **printing logical destination** waits for them to finish processing.

Because the jobs consist of a series of signatures (whether 1-to-32 pages, 1-to-64 pages, or some other designation), the Print Optimizer can provide significant performance benefit when transforming the data in the job ticket from PJTF into AFP. For example, if the signatures are 64 pages long and consist of three signatures (for a document size of 172 pages), once page 129 (the start of the third signature) has completed processing (the Print Optimizer has primed the job by creating page references for the page resources), Infoprint Manager can transform the references in the page resources for pages 1 through 128 from PJTF format into AFP files. The **printing actual destination** begins printing all the data once all the pages in the job ticket have been transformed.

Guidelines for Submitting Impositioning Jobs to Infoprint Manager

The following guidelines should be followed when creating and submitting Impositioning jobs to Infoprint Manager.

1. If a prime-only job was used, the corresponding impositioning jobs should be submitted through the same logical destination where the prime-only job was submitted.
2. If you use the same actual destination for both general printing and impositioning, use two separate logical destinations to feed it jobs.
3. If you are compelled to shut down the **printing actual destination** while an impositioning job is processing, the job will not print and you will need to place the **original job** in the hot folder again.
4. Specify high values for both the **Release time (sec)** and the **Maximum presentation object containers to keep** fields as shown in Figure 3 on page 9. Setting the **Maximum presentation object containers to keep** field (or the **maximum-presentation-object-containers-to-keep** attribute on the command line) to a high value ensures that data stays at the printer for a longer period, reducing network traffic when reprinting jobs.
5. Ensure that **Optimize for copies** is set to no, as shown in Figure 3 on page 9.
6. Impositioning jobs must be no larger than 21 X 53 inches for each sheet.
7. Do not submit multiple Adobe Portable Job Tickets within the same job.
8. Because plex values (whether the job is to be printed simplex, duplex, or tumble) are ignored within the Adobe Portable Job Tickets, you must use the following Infoprint Manager attributes to specify these settings:
 - **plex**
 - **plex-supported**
 - **sides**
 - **sides-supported**

The **plex-supported** actual destination attribute can be modified when you define the printing actual destination in step 5 of “Creating Printing (PSF DSS) Destinations to Use the Print Optimizer” on page 19.

You can specify the **sides** document attribute in the initial value document (**ivj**) of the printing logical destination through the following procedure:

- a. From the main view of the **Infoprint Manager Administration GUI**, click on the **Logical Destinations** icon.
- b. From the **Logical Destinations** view that appears in the right pane, right-click on the printing logical destination that you defined in “Creating Printing (PSF DSS) Destinations to Use the Print Optimizer” on page 19, and select the **Job and Document Defaults** —> **Modify...** path.
- c. From the **Job and Document Defaults** view, select the **Document Layout** tab.
- d. From the **Document Layout** tab view, you can specify duplex jobs by defining the Sides to print field (the **Sides** attribute) as 2 and allowing all other attributes to take the default, as shown in Figure 2 on page 8.

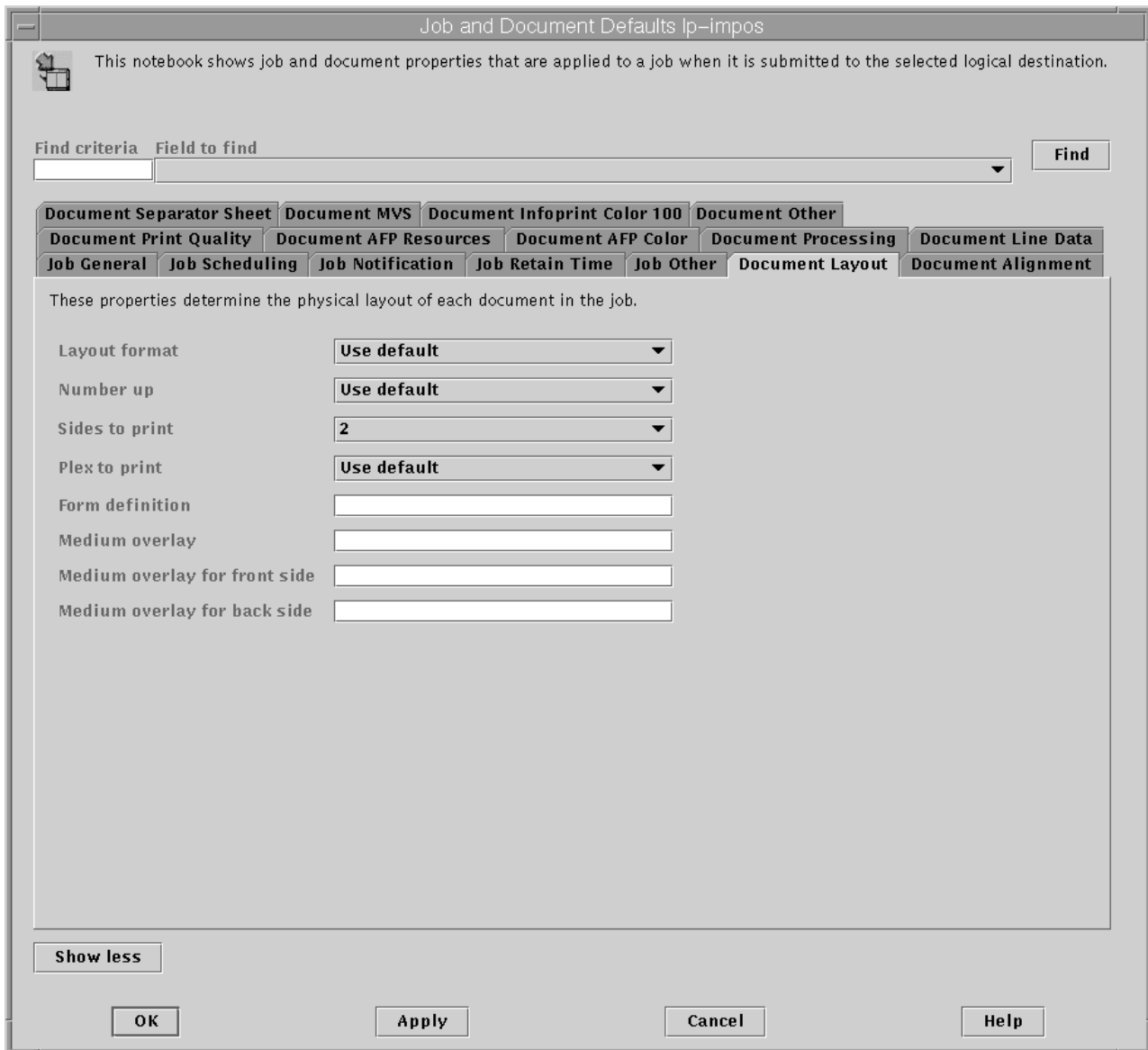


Figure 2. Document Layout Tab View.

9. Because positioning of the job on the page should be left to the Adobe Portable Job Ticket, ensure that the following attributes are set to 0 in an Impositioning job:
 - **x-image-shift (Move image right (inches or (mm) field)**
 - **x-image-shift-back (Move image right (inches or (mm) field)**
 - **y-image-shift (Move image down (inches or (mm) field)**
 - **y-image-shift-back (Move image down (inches or (mm) field)**

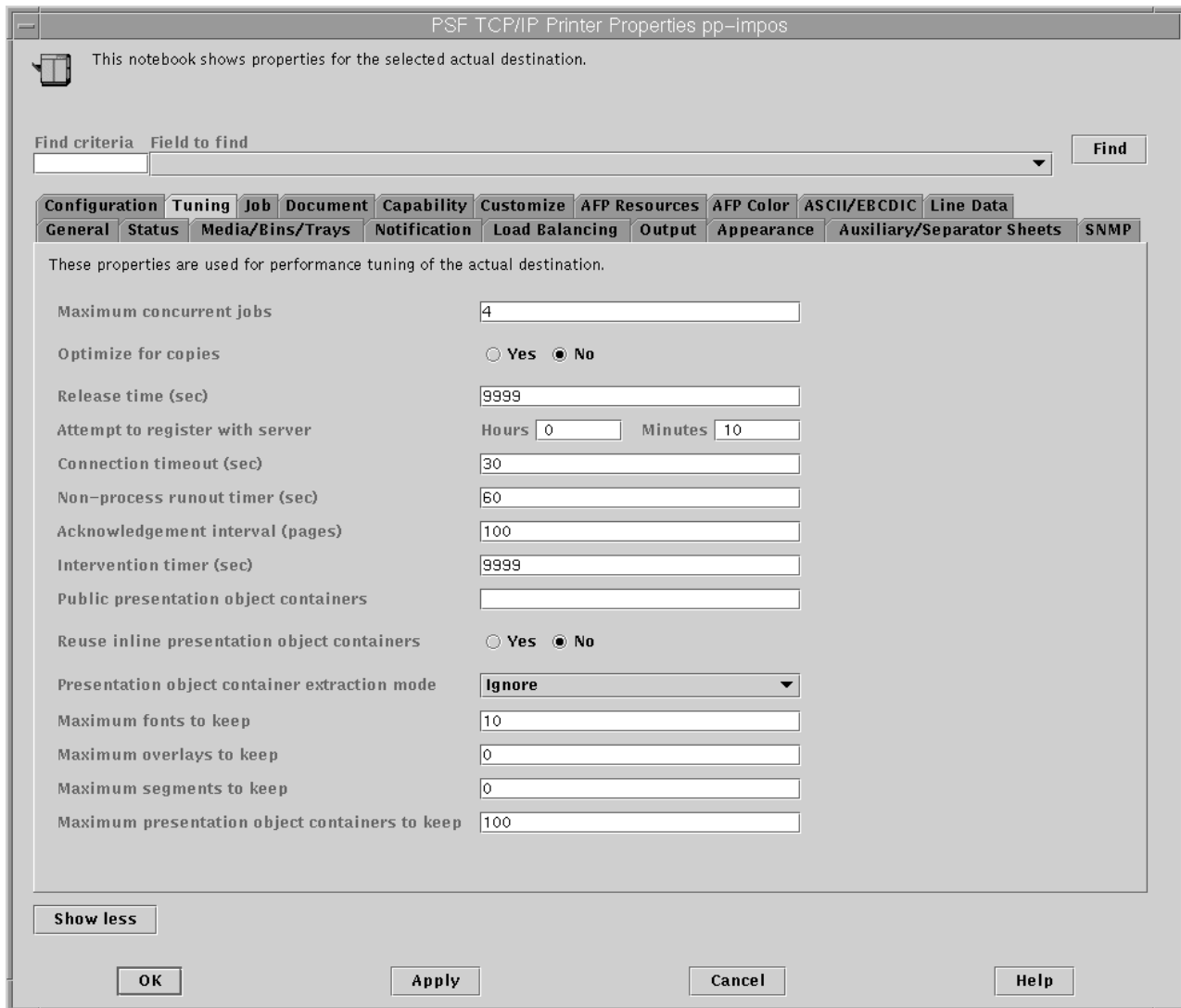


Figure 3. PSF DSS Actual Destination Properties Notebook.

Specific Impositioning Scenarios

The following topics describe the three different job flows that you might use:

- “Modifying Both the Content and the Layout of Impositioning Jobs”.
- “Modifying the Layout of Impositioning Jobs without Changing Content” on page 12.
- “Submitting Impositioning Jobs for Printing Later (Prime Only Jobs)” on page 14.

Modifying Both the Content and the Layout of Impositioning Jobs

This job flow describes what happens when both the impositioning job’s contents and layout specifications must be processed through Infoprint Manager. You will use this scenario the first time a print installation submits an impositioning job to Infoprint Manager. Please note that the first time you submit any job to the Print

Optimizer through the hot folder, you must include all the print files (either *.ps or *.pdf files) and the .pjtf file required with the job.

Once it has been optimized, you need only specify the Adobe Portable Job Ticket file (*.pjtf): the print files will be run without your having to specify them again.

Note that Figure 4 on page 11 displays the job flow described in the following, step-by-step sequence.

1. The **original job** (consisting of the *.pjtf file and the all print file(s)) is submitted through the hot folder.
2. The **printing logical destination** picks up the **original job** from the hot folder.
3. The **printing logical destination** sends the **priming job** to the Print Optimizer through the **priming logical destination**.
4. The **printing logical destination** sends the **printing job** to the printing actual destination that is associated with it.
5. Both jobs process in parallel in the **priming actual destination** (Print Optimizer) and the printing actual destination .
6. As content pages get processed to print, the printing actual destination queries the Print Optimizer and waits for the pages, if necessary.

Use the **print-optimizer-synchronization-time-out** actual destination attribute to control the time limit allowed. In the Infoprint Manager Administration GUI, this attribute is located on the **Configuration** tab of the **Properties** window for the **printing actual destination**.

7. The Print Optimizer completes processing the **priming job** and saves all changes in the Resources (defaults to /var/pd/servername/resources/) data base.
8. The printing actual destination finishes the **printing job** from the .pjtf file.

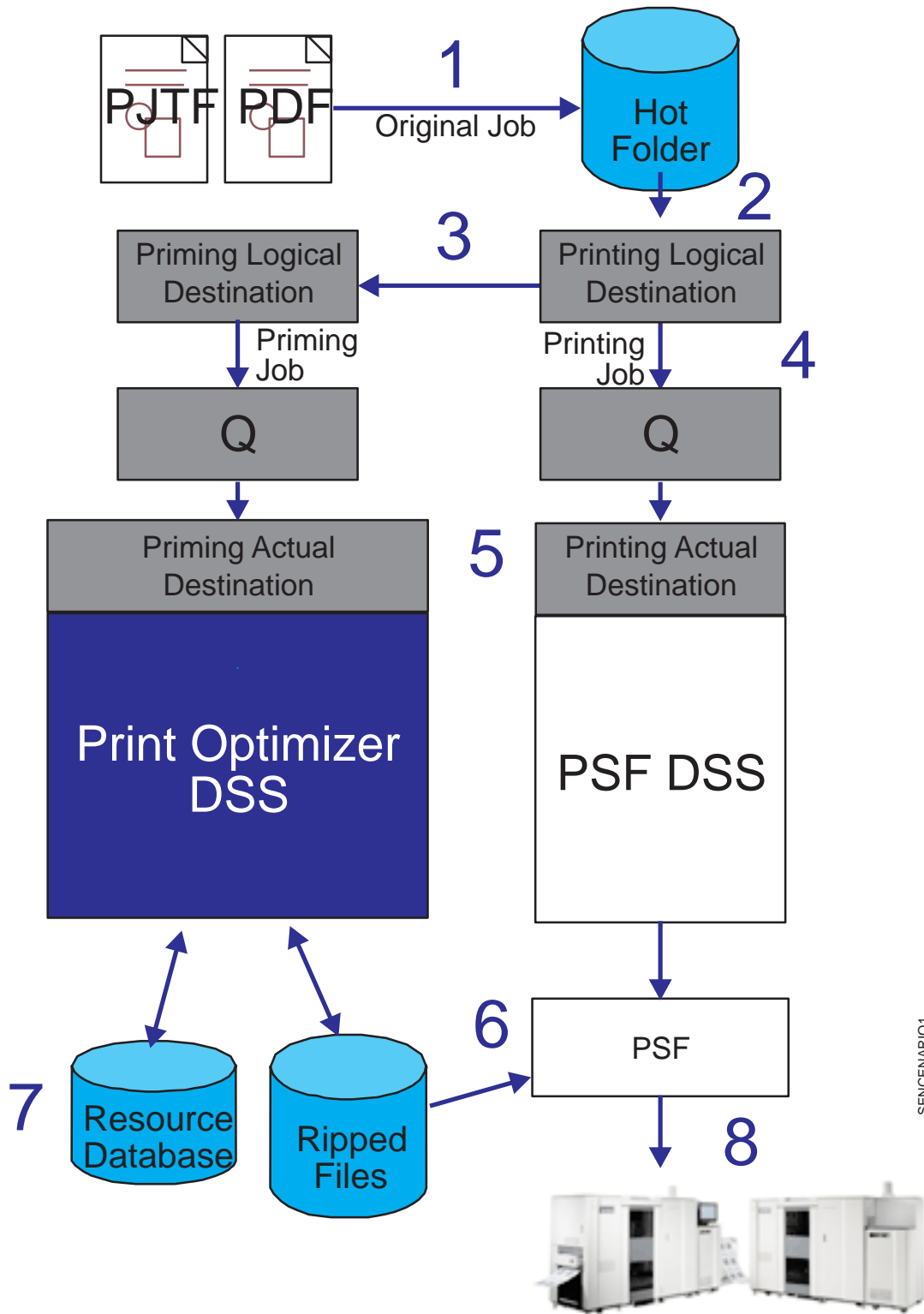


Figure 4. Job Flow for Modifying both Content and Layout.

Modifying the Layout of Impositioning Jobs without Changing Content

A user may need to make layout changes to an impositioning job without altering the job content created with the **original job**. To accomplish this task, they use the following scenario.

Note that Figure 5 on page 13 displays the job flow described in the following, step-by-step sequence.

1. The **original job** (consisting of the changed *.pjtf file only) is placed in the hot folder.
2. The **printing logical destination** picks up the **original job** from the hot folder.
3. The **printing logical destination** sends the **priming job** to the Print Optimizer through the **priming logical destination**.
4. The **printing logical destination** sends the **printing job** to the **printing actual destination** that is associated with it.
5. Both jobs process in parallel in the Print Optimizer and the **printing actual destination**.
6. The Print Optimizer completes processing, with no changes occurring in the Resources (defaults to `/var/pd/servername/resources/`) data base because no **content files** were submitted with the job.
7. The **printing actual destination** gets the AFP pages from the Print Optimizer resource data base.
8. The printing actual destination finishes the **printing job** from the .pjtf file, with no changes to content, and no waiting for Print Optimizer resources.

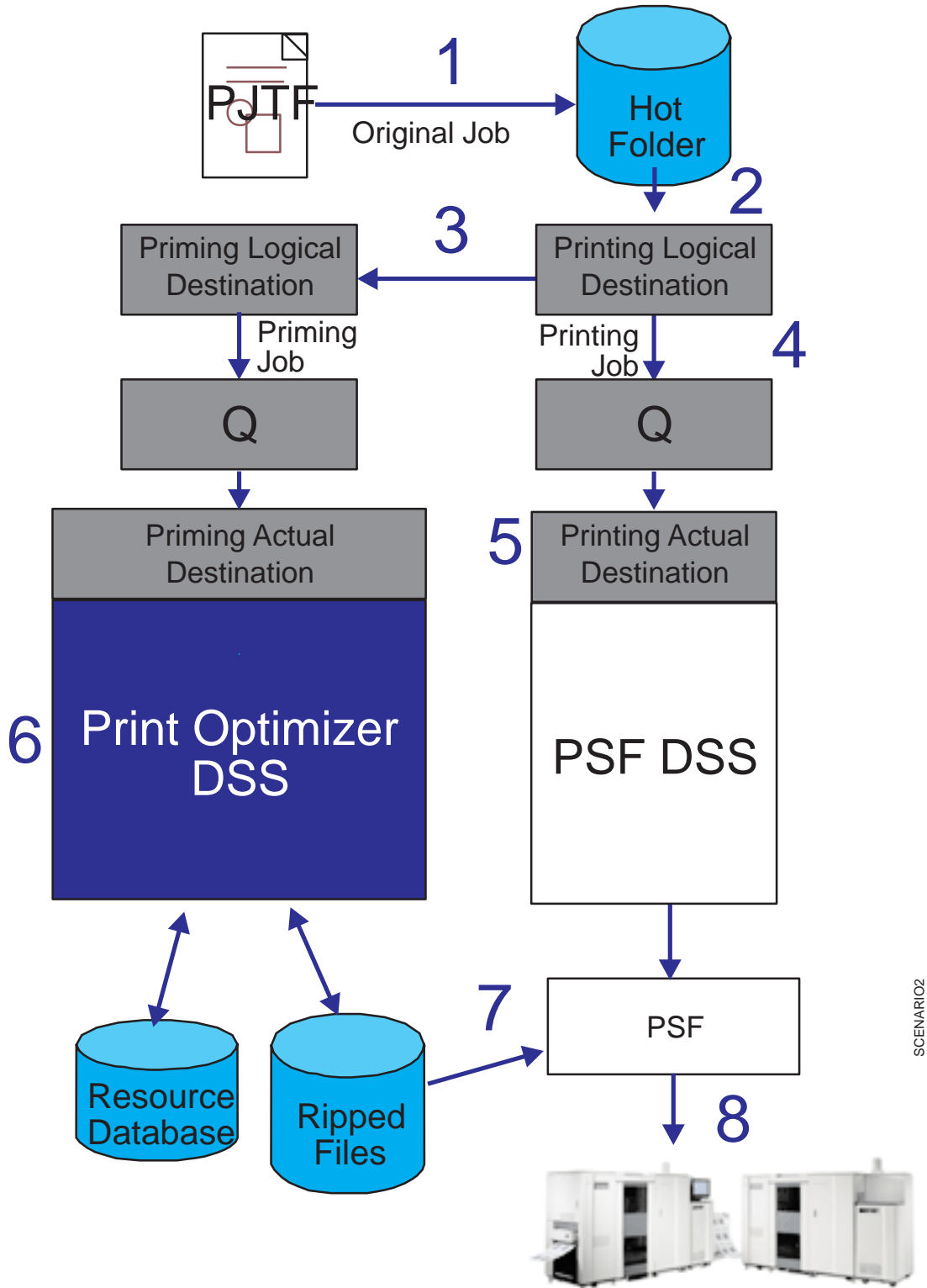


Figure 5. Job Flow for Modifying Job Layout Only.

Submitting Impositioning Jobs for Printing Later (Prime Only Jobs)

A user may need to RIP an impositioning job first (for example, during the first shift), but for performance reasons hold the job and print it later (for example, during third shift). Infoprint Manager provides a performance benefit by reducing the time it takes the first page to print. For example, a user can submit the **content files** in multiple batches at various times. Each batch of **content files** requires a **pjtf** file that specifies the size of the pages being submitted to the Infoprint AIX server; however, the **pjtf** file does not have to specify every AFP page that will be used in the job when Infoprint Manager merges all the batches.

To submit prime-only jobs, they will use this scenario. All RIPped data is stored on the Infoprint AIX server, but nothing is printed until later.

The following represents the job flow for a prime only job. :

1. The **original job** (consisting of a ***.pjtf** file, the **content files**, and a ***.att** file) is placed in the hot folder.
The ***.att** file contains the single line `prime-only=true`. For more information about using ***.att** files, see “Specifying job attributes” on page 23.
2. The **printing logical destination** picks up the **original job** from the hot folder.
3. The **printing logical destination** sends the **priming job** to the Print Optimizer through the **priming logical destination**, but sends nothing to the **printing actual destination** because of the setting of the **prime-only** attribute.
4. The Print Optimizer processes the priming job.
5. Once the priming job has finished processing in the Print Optimizer, Infoprint saves the RIPped content in the Resources (`/var/pd/servername/resources/`) data base.

Later, just the **pjtf** file can be submitted to actually print the job without reprocessing it in the Print Optimizer.

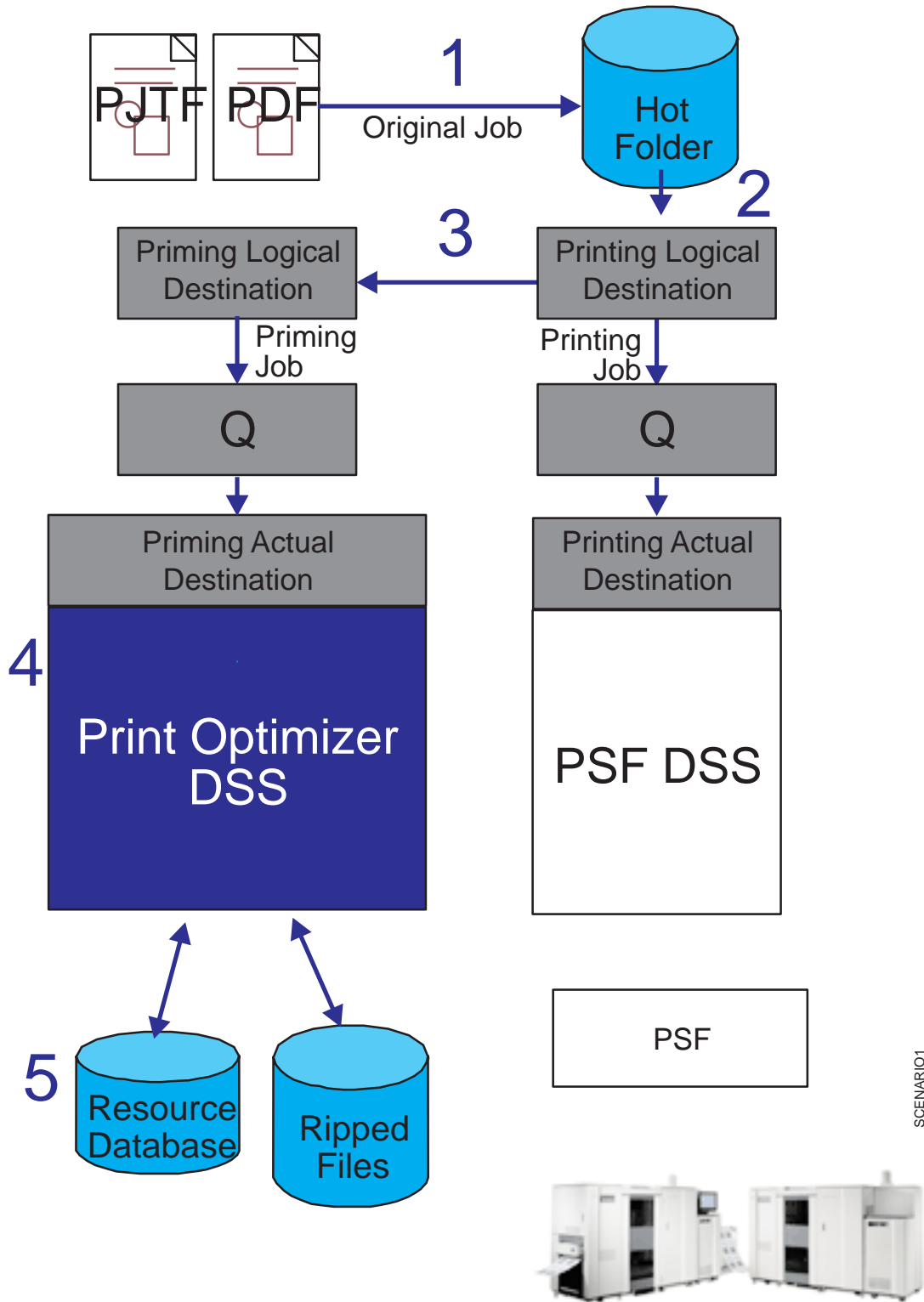


Figure 6. Job Flow for Prime Only Jobs.

Chapter 3. Configuring Infoprint Manager for Impositioning

Before you can use impositioning function in Infoprint Manager, you must complete the following configuration tasks on your Infoprint AIX server.

- “Creating the Priming (Print Optimizer DSS) Destinations and Queue”.
- “Creating Printing (PSF DSS) Destinations to Use the Print Optimizer” on page 19.
- “Setting Up Hot Folders to Submit Impositioning Jobs” on page 22.

Creating the Priming (Print Optimizer DSS) Destinations and Queue

The **priming (Print Optimizer DSS) actual destination** processes the job layout specifications for impositioning jobs, before a printing actual destination (PSF DSS) sends the printing job to the Infoprint 4100 Advanced Function Printing System. The Print Optimizer primes the server with **content pages** that are necessary before a job can be processed by the **printing actual destination** (the PSF DSS actual destination that prints the job).

The **priming logical destination** feeds jobs to the **priming (Print Optimizer DSS) actual destination**. Once the **priming actual destination** begins processing a job, the PSF actual destination can begin processing the job. The data is formatted into one-page AFP resources, and the output data stored in the database and resources directory.

This following procedure creates a **priming actual destination**, a **priming logical destination**, and a queue. If you are using the **Basic Infoprint Administration GUI**, the queue is not visible. Use the **Create Printer Wizard** in the basic view of the **Infoprint Manager Administration GUI** to create an actual destination.

Note: You can only create a single Print Optimizer actual destination on an Infoprint AIX server.

1. Start the **Infoprint Manager Administration GUI**.
 - From the AIX desktop in a basic environment, you can select the arrow over the *Infoprint* icon to display the IBM **Infoprint** pop-up, and then select the **Basic Administration GUI** view.
 - From the command line, enter `ipguibasicadm`.
2. Select **Printer -> Create -> Print Optimizer**.
3. In the first panel of the Create Printer Wizard (displayed below), do the following:

— Create Print Optimizer

Create a new print optimizer...
Name, Server, and Optimize for printer are required to create a print optimizer. Values for the remaining fields will be set by the server if not specified.

Name

Server

Optimize for printer

Location of resources

Resource space threshold

Print Optimizer server port

Next> Finish> Cancel Help

Figure 7. First Dialog of the Print Optimizer Printer Create Wizard.

- a. Type a name for the printer in the **Name** field (for this example, p-opt).
- b. Verify that the server is correct in the **Server** field.
- c. Select **Infoprint4100-PD1-PD2** from the **Optimize for printer** drop-down list.

Note: If that model is not shown, you must update Infoprint Manager to the current service level as described in “Prerequisites for the Infoprint Impositioning Solution” on page 2.

- d. Specify a full directory path for the **Location of Resources** field if you want a location other than the default (`/var/pd/servername/resources/`).
- e. Click either **Next** or **Finish**.

If you click **Finish**, Infoprint Manager creates a Print Optimizer actual destination, logical destination, and queue, taking all the system defaults and enabling these Infoprint objects. If you click **Next**, you continue onto the next step.

Note: Infoprint Manager creates a logical destination (in the form `adname-ld`, where `adname` is the name you provided for the print optimizer) and queue (in the form `server_name-print-optimizer-q`) for

you. Remember the logical destination name because you will need it when configuring the logical destination in the next section.

4. In the second panel, you can customize job and document defaults, and change the default hot folder location, or select **Next**.
5. In the third panel, you can choose to change the actual destination configuration or click **Next**.
6. On the final panel click **Finish**.

Now you have a Print Optimizer actual destination, a logical destination, and queue which will feed jobs to it. In the next procedure, you will configure a PSF DSS actual destination that will handle the content of the impositioning job.

Creating Printing (PSF DSS) Destinations to Use the Print Optimizer

This step is necessary to create a PSF DSS actual destination that will use the configuration created in “Creating the Priming (Print Optimizer DSS) Destinations and Queue” on page 17. The **printing actual destination** represents the physical output device, the Infoprint 4100 Advanced Function Printing System. The **printing logical destination** that sends priming jobs to the priming logical destination before sending printing jobs to the printing actual destination, is created as a result of the procedure in the next section: “Connecting the Printing Logical Destination to the Logical Destination Created with the Print Optimizer” on page 20.

The Infoprint 4100 must be a PSF DSS printer, so use the **Create Printer Wizard** in the **Infoprint Manager Administration GUI** to create an actual destination.

1. Start the **Infoprint Manager Administration GUI**.
 - From the AIX desktop in a basic environment, you can select the arrow over the *Infoprint* icon to display the IBM **Infoprint** pop-up, and then select the **Basic Administration GUI** view.
 - From the command line, enter `ipguibasicadm`.
2. Select **Printer -> Create -> PSF>TCP/IP**.
3. In the first panel of the Create Printer Wizard, do the following:
 - a. Type a name for the printer in the **Name** field.
 - b. Verify that the server is correct in the **Server** field.
 - c. Select **Infoprint4100-PD1-PD2** from the **Model** drop-down list.

Note: If that model is not shown, you must update Infoprint Manager to the current service level as described in “Prerequisites for the Infoprint Impositioning Solution” on page 2.

- d. Type the TCP/IP address and port number for the printer in the correct fields.
- e. Click either **Next** or **Finish**.

If you click **Finish**, Infoprint Manager creates a PSF TCP/IP actual destination, logical destination, and queue, taking all the system defaults and enabling these Infoprint objects. If you click **Next**, you continue onto the next step.

Note: Infoprint Manager creates a logical destination for you, in the form *adname-ld*).

4. In the second panel, you can customize job and document defaults, and change the default hot folder location, or select **Next**.

5. In the third panel, you can choose to change the actual destination configuration or click **Next**.
The **Plexes-supported** actual destination attribute correctly defaults to tumble, but can also be set to simplex.
6. On the final panel click **Finish**.

Now you have a PSF TCP/IP actual destination that you can use to print the job output from your impositioning jobs.

Connecting the Printing Logical Destination to the Logical Destination Created with the Print Optimizer

Now you must link your **printing logical destination** to the **priming logical destination** created in “Creating the Priming (Print Optimizer DSS) Destinations and Queue” on page 17.

Note: Ensure that you repeat this procedure for every logical destination which will be used to feed impositioning jobs to the **printing actual destination**.

1. From the **Main** window of the **Infoprint Manager Administration Servers** basic view, highlight the **Logical Destinations** icon from the Destinations pane so that all the logical destinations display in the main pane.
2. From the **printing logical destination** (a logical destination feeding the PSF DSS actual destination), right-click and select the **Properties** option from the drop-down menu.

Note: If the **Properties** option does not display, click on the **Add/Remove Menu Items** option and check both the Menu and the Toolbar boxes from the **Customize** dialog to add the **Properties** option.

3. From the **Properties** notebook for the logical destination, specify the name of the logical destination that you created in “Creating the Priming (Print Optimizer DSS) Destinations and Queue” on page 17 in the **Priming Destination** field.

Note: From the **Properties** Notebook window, you may need to click on the **Show more** button in the lower left corner to see the **Priming destination** field as displayed below:

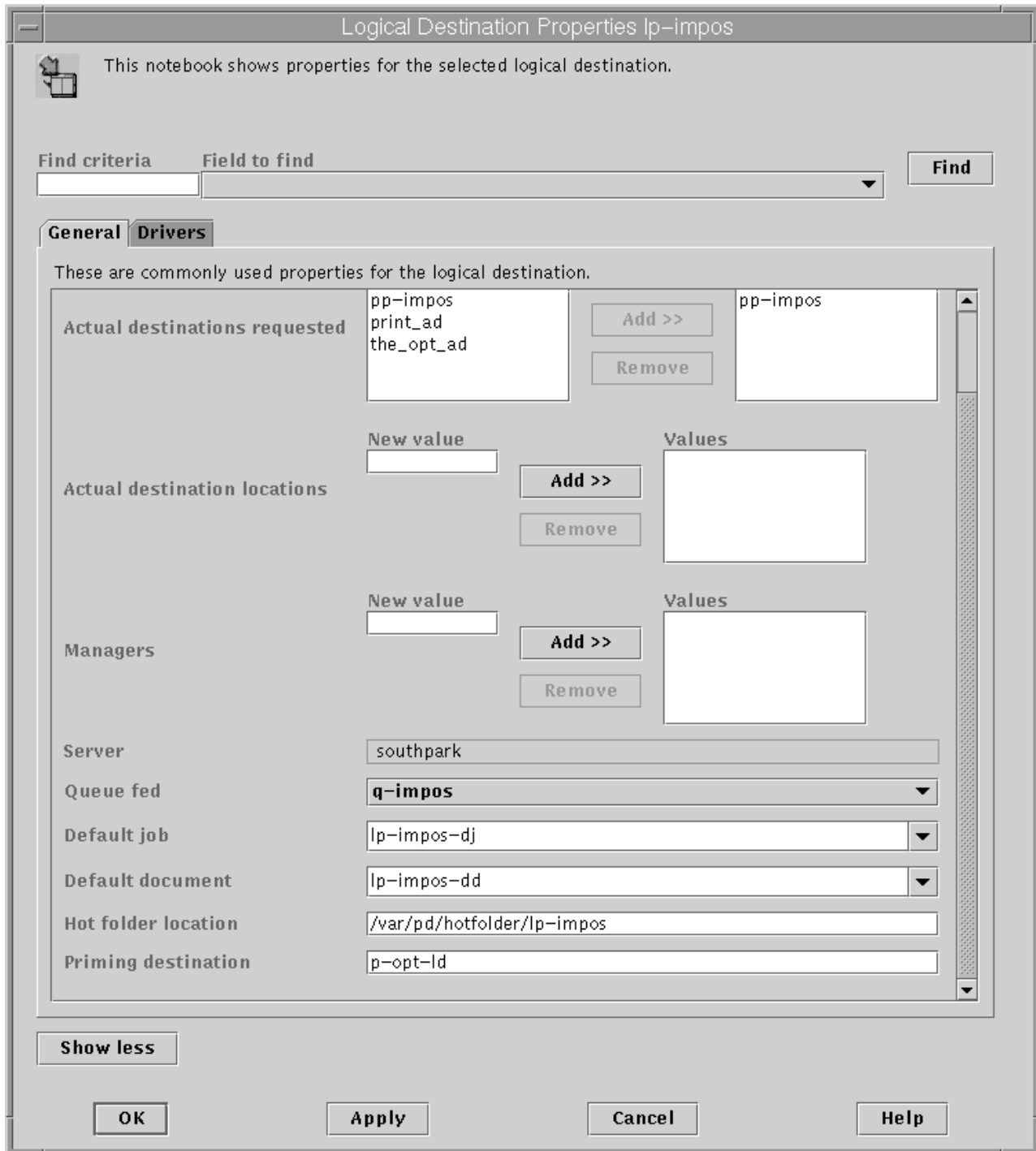


Figure 8. Properties Notebook for the Print Optimizer's Logical Destination.

IBM recommends that you set the **Hot folder location** field to something similar to `/var/pd/hotfolder/ld_name` to clearly associate the hot folder directory with the logical destination that feeds impositioning jobs into the system. For more information about setting up a hot folder and using it to submit jobs, see “Setting Up Hot Folders to Submit Impositioning Jobs” on page 22.

Setting Up Hot Folders to Submit Impositioning 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, then 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 1.

Table 1. Recommended file sharing methods

Server	Client	Method	Refer to
AIX	AIX	Network File Sharing (NFS)	<i>AIX System Management Guide: Communications and Networks</i> (http://www.rs6000.ibm.com/doc_link/en_US/a_doc_lib/aixbman/commadmnmn/toc.htm)
AIX	Windows	AIX FastConnect for Windows	<i>AIX System Management Guide: Communications and Networks</i>
Windows	Windows	Server Message Block (SMB) (standard Windows folder sharing)	Windows help

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 may 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. Refer to the Infoprint Manager Administration GUI online help, or to *IBM Infoprint Manager for AIX Administrator's Guide*, S544-5595, for instructions. Note that a hot folder

can be associated with only one logical destination; and a logical destination can be associated with only one hot folder.

Note: 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. Refer to the Infoprint Manager Administration GUI online help, or to *IBM Infoprint Manager for AIX Administrator's Guide*, S544-5595, for instructions.

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 1 on page 22.

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.

Attention: If you want 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, if you want to print three single-sided copies of *report.pdf*, *report.pdf.att* looks like this:

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

Note that 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, refer to *Infoprint Manager: Reference*, S544-5475.

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 ensure 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 that this step is optional because you can create the attributes file within 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. If you want to get notifications on hot folder jobs, you must specify a **notification-profile** with an explicit **delivery-address** in the *.att* file.

Staging jobs

Because it takes time to copy or move files, Infoprint may try to submit a large job before it is completely in the hot folder. You can prevent the submission of partial jobs by *staging* large jobs.

To do this:

1. Copy the file to the hot folder with the extension `.stg`. Infoprint ignores files with this extension.
2. When the copy is complete, rename the copy with the original extension.

Submitting multiple-document jobs

To print multiple documents in a single job:

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 may not be copied in the same order that you selected them. If the print order matters, copy the files one at a time.

When using multiple documents in an impositioning print job, your chances of a transform timeout are reduced if the documents are in the approximate order they are used in the job ticket. For example, ensure that a cover is placed before the contents of a job to avoid the cover being used on the first sheet so the transform does not have to wait for the print optimizer to RIP through the entire book content.

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

Chapter 4. Managing Impositioning Resources

Infoprint Manager command processing for managing impositioning resources is similar to the standard command processing, with a few exceptions. The following topic highlights those exceptions. For a complete list of the relevant Infoprint Manager commands and how they can be used, see *Infoprint Manager: Reference*, S544-5475.

You can use both the **polist** and the **podelete** commands to help you manage your impositioning environment. You can use the **polist** command to list either documents or resources in the Print Optimizer. For example, if you wanted to list all the documents in the data base by size, you could specify `polist -s s` and receive a display similar to the following:

DOCUMENT NAME	PAGES	SIZE	TRANSFORMED
PS A4.ps	12	16.6 KB	11/07/01 17:03:39
BackCover.pdf	1	153.2 KB	11/14/01 11:30:31
BackCover.sep	1	159.1 KB	11/15/01 13:01:56
BackCover_A4.pdf	1	159.6 KB	11/15/01 11:58:48
Cover.pdf	1	225.3 KB	11/14/01 11:30:54
Cover_A4.pdf	1	237.3 KB	11/15/01 11:59:19
Cover.sep	1	238.9 KB	11/15/01 13:02:23
frontmatter.pdf	7	316.5 KB	11/14/01 11:30:56
frontmatter.sep	7	380.7 KB	11/15/01 13:02:25
frontmatter_A4.pdf	7	388.6 KB	11/15/01 11:59:22
Appendix.pdf	3	388.7 KB	11/14/01 11:30:29
Appendix_A4.pdf	3	468.1 KB	11/15/01 11:58:45
Appendix.sep	3	482.3 KB	11/15/01 13:01:54
Card x 60.pdf	60	676.4 KB	11/15/01 13:00:42
Chapter1_11pg.pdf	11	1269.8 KB	11/14/01 11:30:35
Chapter2_12pg.pdf	12	1393.5 KB	11/14/01 11:30:40
Chapter1_11pg.sep	11	1743.3 KB	11/15/01 13:02:01
Chapter3_15pg.pdf	15	1766.8 KB	11/14/01 11:30:45
Chapter1_11pg_A4.pdf	11	1770.0 KB	11/15/01 11:58:54
Chapter2_12pg.sep	12	1875.4 KB	11/15/01 13:02:06

Use the **podelete** command to delete documents from the Print Optimizer.

Note: The Print Optimizer DSS does not support the following commands:

- **pdpause** of either the priming actual destination or the priming job.
- **pdresume** of either the priming actual destination or the priming job.
- **pdshutdown** of the priming actual destination.
- **pdspace**

Chapter 5. Troubleshooting Impositioning

If errors should occur when you are using this Infoprint Impositioning solution, there are standard diagnostic techniques when resolving any Infoprint printing problems, and specific guidelines that are unique to impositioning jobs. When looking in the different error and message logs, remember to track both the Print Optimizer job and the printing job:

- Infoprint server error logs:

Each Infoprint server (or **pdserver** process) stores an **error.log** file in the **/var/pd/server_name** directory. In addition to logging errors, this log maintains a history of requests made to this server by Infoprint users, other servers, or through the **Infoprint Manager Administration GUI**.

Note: Print Optimizer transform errors are logged in the server error log.

Each entry is composed of the following seven fields:

Message Severity

Specifies whether a message is of an Error (**E**), Warning (**W**), Audit (**A**), Debug (**D**), or Informational (**I**) severity level.

Date Specifies the date in language-specific format; for example: (11/08/01).

Time Specifies the time in language-specific format; for example: (15:43:09).

Thread ID

Specifies the thread ID of the thread issuing the message.

This value can be useful when debugging a problem; you can search on the unique thread ID of an operation and see all the messages that it issued.

Target of request

Specifies the target, and sometimes the requestor, of a particular action.

Message number

Specifies the number of the Infoprint Manager message (5010-373). You can use the **pdmsg** command to obtain the help-text of any message by specifying the message number.

For example, if you specify **pdmsg 5010-373**, Infoprint responds with the following display:

```
5010-373 The server _____ received a _____ signal request
from the destination _____:_____.
```

```
5010-373
```

```
EXPLANATION: The server is processing the request.
```

```
This message goes to the error log only.
```

```
SYSTEM ACTION: The request is processing.
```

```
RESPONSE: No response is required to this informational message.
```

Message text

Specifies the text of a particular message (The server mishka completed processing a ready for job signal request from the destination mishka:opt-ph.)

The following provides a sample error message from the server error log file. Please note that this message has been formatted for purposes of displaying the contents. The actual message is on one line in the **error.log** file:

```
D 11/08/01 15:43:09 [2539 mishka,opt-ph] 5010-373 The server mishka
completed processing a ready for job signal request
from the destination mishka:opt-ph.
```

- Examine the job messages

These low-level errors (such as data stream errors) are detected by the device support system (DSS). These messages go to the message log (see the `/var/psf/actual_destination_name/jobmessage.log` file). By default these messages are printed at the end of the job (`dss-job-message-disposition=print` is specified on your printing actual destinations), so you can examine them there.

- Examine the actual destination error logs

These logs display printer errors, and other non-job errors. You can consult the **error.log** file for the actual destinations, which resides in the `/var/psf/actual_destination_name` directory.

Note: If the Print Optimizer cannot be started and therefore the **podelete** command cannot be run, you must delete all the files in the Print Optimizer resource directory and then restart it.

Specific Impositioning Problems

The following provides some Impositioning problems that can occur, with potential solutions:

- “Job Stays in Hot Folder and Never Appears in Infoprint Server”.
- “Job Hangs in Printing Actual Destination and Eventually Times Out”.
- “Job Prints as Unexpected, Cropped Size” on page 29.

Job Stays in Hot Folder and Never Appears in Infoprint Server

Has the Logical Destination’s hot-folder-directory been set correctly?

Ensure that you have specified the correct name for the hot folder in the **Hot folder location** field of the printing logical destination’s **Properties** notebook (see Figure 8 on page 21).

Has the Logical Destination been enabled?

Ensure that the logical destinations you defined in “Creating the Priming (Print Optimizer DSS) Destinations and Queue” on page 17 and “Creating Printing (PSF DSS) Destinations to Use the Print Optimizer” on page 19 have been enabled. If not (a black logical destination printer icon displayed from the **Main** window of the **Infoprint Manager Administration GUI**), enable the logical destination through the **Infoprint Manager Administration GUI**.

Has .stg file or directory been renamed?

If you are using a staging file or directory to stage large or multi-document jobs to the hot folder (for more information, see “Staging jobs” on page 24), ensure you have renamed either the file’s or the directory’s extension to something other than **.stg** so that the hot folder will submit it to the logical destination.

Job Hangs in Printing Actual Destination and Eventually Times Out

Is the logical destination’s priming-destination set correctly?

Ensure that you have specified the correct priming destination in the **Priming destination** field of the printing logical destination’s **Properties** notebook (see Figure 8 on page 21).

Has the Print Optimizer job failed?

Check the server error log cited in Chapter 5, “Troubleshooting Impositioning” on page 27, then take the appropriate recommended actions.

Is the Print Optimizer actual destination enabled?

Ensure that the actual destination you defined in “Creating the Priming (Print Optimizer DSS) Destinations and Queue” on page 17 has been enabled. If not (a black actual destination printer icon displayed from the **Main** window of the **Infoprint Manager Administration GUI**), enable the logical destination through the **Infoprint Manager Administration GUI**.

Job Prints as Unexpected, Cropped Size

Are the same original jobs being used with new job tickets?

If you use an **original job** that has previously been optimized with a different job ticket file, the size specified the first time the data was processed by the Print Optimizer is the size used until those documents are deleted from the Print Optimizer resource directory.

The Print Optimizer ignores documents it has already processed: the fact that the job ticket has changed does not cause Infoprint to reRIP the data.

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